# Size Management and Cost Stickiness On Rural Banks

## Ardilla Mahardhika Johan*, Ronny Prabowo

Satya Wacana Christian University
JL. Kartini, No. 11 A, Salatiga, Sidorejo, Kota Salatiga, Jawa Tengah 50711, Indonesia

✉ Corresponding Author:
**Name author** : Ardilla Mahardhika Johan
E-mail: rdillamahardhika@gmail.com

## Abstract

This study examines the effect of a managerial incentive on the cost behavior of rural banks (BPR or Bank Perkreditan Rakyat) as a consequence of the enactment of FSA-R 5/2015. This study hypothesizes that rural banks with core capital less than IDR 3 billion will exhibit higher anti-sticky cost behavior. The regression analysis of a sample of 242 rural banks in Central Java Province in 2015-2019 empirically demonstrates evidence that rural banks with core capital less than IDR 3 billion reduce more costs when sales decline than those with core capital above IDR 3 billion, implying that these rural banks exhibit greater anti-sticky cost behavior. This cost behavior is motivated by a managerial incentive to increase their core capital by engaging in size management. This study also documents that rural banks with core capital below IDR 3 billion exhibit the highest anti-sticky cost behavior in 2015, when the regulation was initially implemented. Overall, this study underscores the importance of size management incentives in explaining firms' cost behavior.

**Keywords** : Cost behaviour, Cost stickiness, Managerial incentive, Rural banks
**JEL Classification** : G21, G28

## 1. Introduction

Rural banks (Bank Perkreditan Rakyat or BPR) actively contribute to the Indonesian economy. They also have developed quantitatively, as indicated by the Financial Services Authority (FSA or OJK – Otoritas Jasa Keuangan) data per July 2021, that there are 1,487 conventional rural bank entities with a total credit of IDR 113,837 billion. However, small capital constraints rural banks' capabilities, including their governance. In this respect, FSA emphasizes rural banks' governance issues by issuing several regulations, including regulation FSA-R 5/2015 concerning "Rural Banks' Obligation to Provide Minimum Capital and The Fulfillment of Minimum Core Capital. This regulation requires rural banks with core capital lower than IDR 3 billion to have core capital of three billion no later than December 31, 2019. This regulation arguably motivates rural banks with core capital lower than IDR 3 billion to engage in size management to increase their core capital by reducing their costs significantly to maximize their profits before the deadline.

Opportunistic incentives to engage in size management also likely affects asymmetric cost behavior. Anderson et al. (2003); Francis et al., (2016); Habib & Hasan, (2019); Su et al., (2023) explain that costs behave asymmetrically when they increase more when activities increase than their decrease when activities decrease at the same magnitude. They label this behavior as cost stickiness. When activities increase, managers will increase resources to meet increasing demands. However, when activities decrease, they tend to retain unutilized resources because of various factors.

FSA-R 5/2015 also potentially affects rural banks' asymmetric cost behavior. Rural banks with core capital lower than IDR 3 billion are motivated to increase their profits significantly to achieve the required minimum core capital, including by exhibiting anti-sticky cost behavior (the degree of cost decrease is greater than the magnitude of cost increase for the same level of activity change). Cost behavior generally affects profit changes, and profit changes will affect equity as the main component of rural banks' core capital.

Prior studies investigate size management incentives using earnings management analysis (Gao et al., 2009; Dierynck et al., 2012; Nondorf et al., 2012; Venieris et al., 2015; Bernard et al., 2018; Roychowdhury et al., 2019; Golden et al., 2020; Sinambela & Djaelani, 2022). Besides, the cost stickiness literature in the Indonesian banking industry focuses on general banks (Windyastuti et al., 2017; Setiawati

et al., 2017; Hermawan & Djoko, 2019). Hence, this study seeks to fill the research gap by analyzing rural banks' size management through the cost stickiness literature.

This study focuses on the role of FSA-R 5/2015 in incentivizing rural banks with core capital below IDR 3 billion to engage in size management through anti-sticky cost behavior to maximize their profits. Accordingly, we seek to empirically demonstrate the effect of a size management incentive on rural banks' asymmetric cost behavior. This study contributes to the literature by empirically documenting the role of size management incentives in explaining asymmetric cost behavior.

## 2. Hypotheses Development

### CEO's Cost Stickiness

Malcolm (1991) and Kliestik et al., (2022) explains that costs tend to change disproportionally to activity changes. Increased sales are followed by increased costs, but costs decrease at a lower magnitude when sales decline, thus indicating asymmetric cost behavior (Cooper & Kaplan, 1988). Further, Anderson et al. (2003) label this asymmetric cost behavior as cost stickiness, referring to the fact that cost increase is greater when activity increases than cost reduction when activity declines. Cost stickiness is affected by three factors. The first factor is adjustment costs (Anderson et al., 2003). Adjustment costs refer to costs to reduce and reacquire resources. When sales decline, firms may be motivated to reduce unutilized resources. However, reducing these resources may be costly.

Secondly, cost stickiness is affected by managerial optimism or pessimism about future sales prospects. Anderson et al. (2003) argue that managers must evaluate the persistence of activity decline. When managers are optimistic (pessimistic) about future sales prospects, they likely decide to retain (reduce) unutilized resources when sales decline because they consider sales decline is temporary, thus increasing cost stickiness (anti-sticky cost) (Chen et al., 2019). The third factor is managerial opportunistic. Managers' resource adjustment decisions are affected by agency problems and managerial incentives (Zulfiati et al., 2020), including incentives to report higher earnings that reduce cost stickiness or increase anti-sticky cost behavior (Linggardjaja, 2020; Soegiharto & Rachmawati, 2022; Usmayanti, 2022; Firmansyah et al., 2023; Fithriyyah & Priono, 2022; Jehadu & Hama, 2023). In this respect, managers are motivated to reduce greater resources in responding to activity decline.

### Agency Theory

Jensen & Meckling (1976) and Rashid Khan et al., (2020) predict that differences in shareholders' and managers' interests lead to agency problems or conflicts namely empire-building tendency. On the other hand, Chung et al. (2019) and Ibrahim et al., (2022) argue that internal governance mitigates agency problems. Further studies document that agency theory postulating that management's independency could influence the effectiveness monitoring of management (Prabowo, 2018).

### Agency Theory and Cost Stickiness

Zulfiati et al. (2020) and Daryaei et al. (2021) emphasize that agency factors and managerial incentives explain cost behavior. In a similar vein, Dierynck et al. (2012) reveal that firms exhibit lower cost stickiness when their managers have certain incentives to achieve profit targets. For example, managers are more incentivized to report higher earnings or reduce costs when their wealth (in terms of bonuses) is affected by earnings. Consequently, firms tend to exhibit lower cost stickiness or even anti-sticky cost behavior. Incentives also affect resource adjustment decisions. The most significant influence of managerial expectations on cost asymmetry occurs when the adjustment cost and unutilized resources are high (Chen et al., 2019).

### The Indonesian Rural Bank Industry: An Institutional Context

Article 1 point 4 Act No. 10 of 1998 concerning Banks Defines Rural Banks as entities that do not offer payment traffic services. Rural banks cannot offer current account services, engage in foreign currency transactions, capital investment activities, insurance, and other activities not stipulated by the act. FSA has issued a regulation FSA-R 5/2015 to mitigate fraud risks and improve their transparency.

Specifically, article 13 point 1 of this regulation stipulates rural banks with core capital of less than IDR 3 billion to have at least IDR 3 billion no later than December 31, 2019. Next, article 5 classifies core capital into main and additional core capital. Main core capital consists of paid-in and additional paid-in capital, including stock premium, paid-in capital funds, donated capital, general funds, specific funds, retained earnings, and current-year earnings. The sum of these components is then deducted by deferred taxes, stock discounts, taken-over collaterals, and prior-year and current-year losses.

### Size Management

Bernard et al. (2018) suggest that firm size classification relies on three main size variables: total assets, number of employees, and sales. In this paper, size management relates to how firms manage their size to achieve specific size thresholds due to certain incentives. Similarly, Gao et al. (2009) document that small firms tend to "stay small" to avoid unintended consequences of exceeding equity threshold. Size management also motivates firms to achieve upper size thresholds. For instance, Dierynck et al. (2012) indicate that Belgian private firms avoid negative earnings due to unfavorable consequences of the condition. Thus, small-earnings firms are more motivated to cut labor costs aggressively when sales decline and add lower labor costs when sales increase.

**Hypotheses Development**

Size management explains how firms manage their size to achieve certain size thresholds to avoid unfavorable consequences of failing to meet certain requirements. Size management is also related to how managers adjust their costs when sales decline. In this respect, rural banks are arguably motivated to engage in size management to respond to FSA-R 5/2015. This research predicts that rural banks with core capital of less than IDR 3 billion to cut costs aggressively when sales decline and increase resources cautiously when sales increase to maximize their earnings and eventually increase core capital. Consequently, these rural banks will exhibit anti-sticky cost behavior. Based on the above arguments, we propose the following hypothesis:

$H_1$: Rural banks with core capital lower than IDR 3 billion in 2015 exhibit lower cost stickiness.

## 3. Method, Data and Analysis

Our secondary data is summarized financial statements of rural banks in Central Java Province in 2015-2019 from www.ojk.go.id. We focus on the 2015-2019 observation years because FSA-R 5/2015 was issued in 2015, and the requirement deadline was December 31, 2019. Furthermore, rural banks' financial performance on 2020 may be largely affected by the Covid-19 pandemic (IAI, 2020). Based on the FSA's Bank Statistic Data per July 2021, Central Java has 258 rural bank entities out of 1,487 rural banks in Indonesia (17.35%)

Prior studies use SG&A costs (Anderson et al., 2003; Lee & Chiang, 2018; Banker et al., 2020) and labor cost (Dierynck et al., 2012; Prabowo et al., 2018) in analyzing cost stickiness. We use total operating costs (OPRX) to analyze cost stickiness because it is arguably more appropriate for analyzing cost behavior in the banking industry (Hermawan & Djoko, 2019). This study measures size management (SM) by developing a dummy variable that equals one if the rural bank has a core capital of less than IDR 3 billion and zero otherwise. Further, we use rural banks' operating income (OPRINCOME) as the proxy of activity volumes. Besides, a dummy variable representing activity decrease (DEC) equals one if OPRINCOMEt < OPRINCOMEt-1 and 0 otherwise.

We use two control variables in prior cost stickiness literature. Firm size (SIZE) is operationalized with the natural log of total assets and is predicted to be positively associated with cost stickiness levels (Kontesa & Brahmana, 2018). Further, Return on Equity (ROE) proxies profitability and is predicted to be positively associated with cost stickiness level (Windyastuti et al., 2017; Evelyn, 2018). The descriptive analysis informs the descriptive statistics of our research variables. We run the classical assumption tests and then multiple regression analysis to test the hypothesis with the following formula :

$$\Delta lnOPRX_{i,t} = \beta0 + \beta1 * \Delta lnOPRINCOME_{i,t} + \beta2Dec_{i,t} * \Delta lnOPRINCOME_{i,t} + \Delta\beta3Dec_{i,t} * \Delta lnOPRINCOME_{i,t} * SM + \beta4Dec_{i,t} * \Delta lnOPRINCOME_{i,t} * SIZE + \beta5Dec_{i,t} * \Delta lnOPRINCOME_{i,t} * ROE + \beta6 SM + \beta7 SIZE + \beta8ROE + u_{i,t}$$

$\beta1$ measures the percentage of operating cost increase for each one percent increase in operating income, while $\beta1 + \beta2$ indicates the percentage of operating cost decrease for each one percent decrease in operating income or activity. Further, $Dec_{i,t}*\Delta lnOPRINCOME_{i,t}*SM$ measures the percentage of operating cost decrease of rural banks with core capital less than IDR 3 billion for each one percent decrease of activity. $\beta3 < 0$ ($\beta3 > 0$) suggests that rural banks with core capital of less than IDR 3 billion exhibit greater (lower) cost stickiness than those with core capital of more than IDR 3 billion because $\beta1 + \beta2 + \beta3 < (>) \beta1 + \beta2$. Because we predict that rural banks with size management incentive exhibit lower cost stickiness, we expect $\beta3 > 0$.

## 4. Result

The FSA dataset indicates 258 rural banks in Central Java Province, with 16 not publishing complete annual financial statements, leaving 242 rural bank entities. Using five-year observation periods, we generate 1,210 firm-year observations. The descriptive statistics offer a general description of our research data. Table 1 presents each variable's descriptive statistics. The results of classical assumption test (untabulated) indicate that the data is free from multicollinearity and autocorrelation problems. We use the regression equations with robust standard errors to mitigate the heteroskedasticity problem.

**Table 1.** Descriptive Statistics

| Variable | n: 1.210 | | | | Minimum | Maximum | Mean |
|---|---|---|---|---|---|---|---|
| | Frequency | | Proportion | | | | |
| | 1 | 0 | 1 | 0 | | | |
| SM | 578 | 632 | 47.77% | 52.23% | | | |
| Decrease | 179 | 1,031 | 14.79% | 85.21% | | | |
| ΔlnOPRX | | | | | -1.296 | 1.937 | 0.196 |
| ΔlnOPRINCOME | | | | | -1.234 | 9.319 | 0.191 |
| LnSIZE | | | | | 10.249 | 21.547 | 17.672 |
| ROE | | | | | -9.944 | 0.570 | 0.125 |

Table 1 explains the descriptive statistics of each research variable. There are 578 observations from SM variable (47.77% of total observations) with a core capital of less than IDR 3 billion. Further, that 179 of decease variable (14.79%) firm-year observations experience a sales decline. The minimum (maximum)

value of $\Delta lnOPRX$ is -1.296 (1.937), with an average value of 0.196. Further, the minimum (maximum) value of $\Delta lnOPRINCOME$ is -1.234 (9.319), with an average value of 0.191. The minimum (maximum) value of $LnSIZE$ is 10.249 (21.547), with a mean value of 17.672. Lastly, the minimum (maximum) value of $ROE$ is -9.944 (0.570), with a mean value of 0.125.

**Hypothesis Testing**

We rigorously assess our hypothesis by conducting an exhaustive multiple regression analysis encompassing the entirety of the observational period spanning from 2015 to 2019. This comprehensive approach ensures robust statistical scrutiny across a broad temporal scope.

**Table 2.** The Results of the Hypothesis Testing

| Independent Variable | Dependent Variable: $\Delta lndefOPRX$ | |
| --- | --- | --- |
| | Coefficient | Significance |
| $\Delta lndefOPRINCOME\ (\beta_1)$ | 0.401 | 0.011 |
| $Dec*\Delta lndefOPRINCOME\ (\beta_2)$ | 0.104 | 0.765 |
| $Dec*\Delta lndefOPRINCOME*SM\ (\beta_3)$ | 0.941 | 0.003 |
| $Dec*\Delta lndefOPRINCOME*LnSIZE\ (\beta_4)$ | 0.262 | 0.043 |
| $Dec*\Delta lndefOPRINCOME*ROE\ (\beta_5)$ | 0.223 | 0.084 |
| $SM$ | 0.232 | 0.183 |
| $LnSIZE$ | 0.024 | 0.000 |
| $ROE$ | -0.060 | 0.023 |
| $\_cons$ | 0.124 | 0.000 |
| $N$ | 1.210 | 1.210 |

Note: significance at 1%, 5%, and 10% levels, respectively.

Table 2 indicates that the coefficient value for the interaction term of $Dec*\Delta lndefOPRINCOME*SM$ for the entire observation years (2015-2019) is 0.941 with a significance value of 0.003 (< $a$ = 0.01). The results imply that rural banks with a size management incentive (core capital < IDR 3 billion) reduce their costs by 0.941% greater for each 1% revenue decline than those with no such incentive.

Rural banks with core capital lower than IDR 3 billion in 2015 will have different projections of minimum core capital fulfillment for each year, arguably leading to different cost behavior each year. More specifically, such rural banks may react strongly to the minimum core capital requirement when the regulation is initially issued (2015). To test this conjecture, we observe rural banks' cost behavior by running additional analyses in different observation periods that presented on Table 3.

**Table 3.** The Results of the Additional Analyses

| Independent Variable | Dependent Variable: $\Delta lndefOPRX$ | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| | 2015 | | <=2016 | | <=2017 | | <=2018 | |
| | Coeff | Sig | Coeff | Sig | Coeff | Sig | Coeff | Sig |
| $\Delta lndefOPRINCOME$ $(\beta_1)$ | 0.148 | 0.000 | 0.189 | 0.002 | 0.190 | 0.001 | 0.383 | 0.012 |
| $Dec*\Delta lndefOPRINCOME$ $(\beta_2)$ | -0.860 | 0.000 | -0.109 | 0.746 | -0.052 | 0.846 | 0.076 | 0.832 |
| $Dec*\Delta lndefOPRINCOME*SM$ $(\beta_3)$ | 1.868 | 0.000 | 0.871 | 0.087 | 0.924 | 0.015 | 1.089 | 0.002 |
| $Dec*\Delta lndefOPRINCOME*LnSIZE$ $(\beta_4)$ | 0.373 | 0.061 | 0.197 | 0.340 | 0.206 | 0.252 | 0.309 | 0.046 |
| $Dec*\Delta lndefOPRINCOME*ROE$ $(\beta_5)$ | 0.081 | 0.678 | 0.302 | 0.172 | 0.098 | 0.615 | 0.204 | 0.095 |
| $SM$ | 0.020 | 0.339 | 0.032 | 0.074 | 0.028 | 0.049 | 0.030 | 0.131 |
| $LnSIZE$ | 0.007 | 0.464 | 0.004 | 0.594 | 0.002 | 0.675 | 0.030 | 0.000 |
| $ROE$ | -0.124 | 0.917 | 0.053 | 0.670 | -0.085 | 0.406 | -0.061 | 0.027 |
| $\_cons$ | 0.075 | 0.008 | 0.060 | 0.015 | 0.087 | 0.000 | 0.140 | 0.000 |
| $N$ | 242 | 242 | 484 | 484 | 726 | 726 | 968 | 968 |

Table 3 suggests that the coefficient value of the interaction term $Dec*\Delta lndefOPRINCOME*SM$ in 2015 is 1.868 ($a$ = 0.000<0.01), 0.871 in <=2016 ($a$ = 0.087<0. 1), 0.924 in **<=2017** ($a$ = 0.015<0.05), and 1.089 ($a$ = 0.002<0.01). The findings indicate that our subsample analysis (based on observation periods) yield similar results to the main analysis. Further, rural banks with a size management incentive (core capital < IDR 3 billion) exhibit the greatest anti-sticky cost behavior in 2015 (the year when FSA-R 5/2015 was initially stipulated), implying that rural banks with core capital lower than IDR 3 billion respond to the regulation immediately through aggressive cost-cutting in the early year of the regulation implementation.

## 5. Discussion

This study operationalizes managerial incentives with the implementation of FSA-R 5/2015 and predicts that this regulation affects rural banks' cost stickiness. Our empirical results demonstrate that a size management incentive affects the cost stickiness of rural banks in Central Java Province in 2015-2019. More specifically, this study documents that rural banks with core capital lower than IDR 3 billion exhibit greater anti-sticky cost behavior because their managers have a size management incentive to reduce more costs when sales decline.

These rural banks reduce their costs by 0.941% greater for each 1% sales decline than other rural banks. The findings are in line with who reveal that managerial incentives motivate managers to manage their costs, leading to anti-sticky cost behavior. In particular, incentives to achieve certain targets (earnings, equity, and capital) motivate firms to exhibit certain cost behaviors by committing certain resource adjustments when sales decline.

Our study also highlights anti-sticky cost behavior in different periods. In 2015 (when FSA-R 5/2015 was stipulated), rural banks with core capital < IDR 3 billion exhibit the greatest anti-sticky cost behavior than in other observation periods. Thus, rural banks with a size management incentive to increase capital react immediately to the regulation.

## 6. Conslusion, Limitations and Suggestions

### Conslusions

This study seeks to investigate whether rural banks with core capital lower than IDR 3 billion exhibit greater anti-sticky cost behavior. Our findings are consistent with the hypothesis predicting that rural banks with core capital < IDR 3 billion exhibit greater anti-sticky cost behavior. Such cost behavior is motivated by a managerial incentive to achieve the minimum core capital threshold by generating profits. Overall, our study underscores the role of size management incentives (through certain regulations) in explaining (anti) sticky cost behavior. Regulations may legally motivate firms to achieve certain financial targets that affect their cost behavior. This study also analyzes banks' cost behavior, an industry that is arguably more understudied than other industries.

This study empirically demonstrates the influence of size management on the level of cost stickiness in rural banks in Central Java. Therefore, this study contributes to the cost stickiness literature by analyzing this issue in the banking sector, particularly rural banks, which remain understudied. We use rural banks' total operating costs to investigate anti-sticky cost behavior. These costs also include interest costs that are arguably more subject to external factors (e.g., central bank regulation, macroeconomic conditions) and may confound our findings. Hence, we advise further studies to investigate the behavior of different cost categories of rural banks in the analysis.

### Limitations and Suggestions

The limitations of this study include the narrow focus on banks in rural areas in Central Java, which may limit the generalizability of findings to rural banks in other regions of Indonesia. Furthermore, the use of only total operating costs to analyze cost behavior may overlook differences in cost components that may have different levels of stickiness. Although it is mentioned that external factors such as central bank regulations and macroeconomic conditions may affect interest costs, the study did not delve deeply into these factors, which could limit a comprehensive understanding of bank cost behavior. Therefore, suggestions for further research include developing the study through multivariable approaches to better understand the influence of internal and external factors on bank cost behavior in rural areas. Additionally, future research could break down operating costs into more detailed components and expand analysis to consider more external factors such as government policies, market conditions, and interest rates to enrich the understanding of bank cost behavior in rural Indonesia. Considering these limitations and suggestions, further research could provide a more comprehensive insight into bank cost behavior in rural areas.

## References

Anderson, M. C., Banker, R. D., & Janakiraman, S. N. (2003). Are Selling, General, and Administrative Costs "Sticky"? Journal of Accounting Research, 41(1), 47–63.

Banker, R. D., Fang, S., & Mehta, M. N. (2020). Anomalous Operating Performance During Economic Slowdowns. Journal of Management Accounting Research, 32(2), 57–83. https://doi.org/10.2308/jmar-52547

Bernard, D., Burgstahler, D., & Kaya, D. (2018). Size Management by European Private Firms to Minimize Proprietary Costs of Disclosure. Journal of Accounting and Economics, 66(1), 94–122. https://doi.org/10.1016/j.jacceco.2018.03.001

Chen, J. V, Kama, I., Lehavy, R., & Chen, J. V. (2019). A contextual analysis of the impact of managerial expectations on asymmetric cost behavior.

Chung, C. Y., Hur, S. K., & Liu, C. (2019). Institutional investors and cost stickiness: Theory and evidence. North American Journal of Economics and Finance, 47(January), 336–350. https://doi.org/10.1016/j.najef.2018.05.002

Cooper, R., & Kaplan, R. S. (1988). Measure Costs Right: Make the Right Decision. Harvard Business Review, 66(5), 96–103.

Daryaei, A. A., Fattahi, Y., Sadeqi, H., & Hasani, R. (2021). Management Characteristics and Cost Stickiness: An Examination Based on Agency Theory. 5(1), 1–15. https://doi.org/10.22097/eeer.2020.230712.1156

Dierynck, B., Landsman, W. R., & Renders, A. (2012). Do Managerial Incentives Drive Cost Behavior? Evidence about the Role of the Zero Earnings Benchmark for Labor Cost Behavior in Private Belgian Firms. Accounting Review, 87(4), 1219–1246. https://doi.org/10.2308/accr-50153

Evelyn. (2018). Pengaruh Perubahan Penjualan, Asset Intensity, Profitability, Size, dan Leverage Terhadap Cost Stickiness. Jurnal Muara Ilmu Ekonomi Dan Bisnis, 2(2), 416–423.

Francis B, Hasan I, Li L. Abnormal real operations, real earnings management, and subsequent crashes in stock prices. Rev Quant Financ Account. 2016;46(2):217–60.

Gao, F., Wu, J. S., & Zimmerman, J. (2009). Unintended Consequences of Granting Small Firms Exemptions from Securities Regulation: Evidence from the Sarbanes-Oxley Act. Journal of Accounting Research, 47(2), 459–506. https://doi.org/10.1111/j.1475-679X.2009.00319.x

Golden, J., Mashruwala, R., & Pevzner, M. (2020). Labor adjustment costs and asymmetric cost behavior: An extension. Management Accounting Research, 46(December 2018), 100647. https://doi.org/10.1016/j.mar.2019.07.004

Hermawan, A. A., & Djoko, M. (2019). The Effect of Agency Problems on Cost Stickiness in the Banking Industry : The Role of the Board of Commissioners and the Audit Committee Effectiveness. 4th Sriwijaya Economics, Accounting, and Business Conference, Seabc 2018, 75–84. https://doi.org/10.5220/0008437000750084

IAI. (2020). Dampak Pandemi Covid-19 Terhadap Penerapan PSAK 8 Peristiwa Setelah Periode Pelaporan dan PSAK 71 Instrumen Keuangan. 1 April 2020.

Jensen, C. M., & Meckling, H. W. (1976). Theory of the Firm : Managerial Behavior , Agency Cost and Ownership Structure. Journal of Financial Economics, 3, 305–360.

Kontesa, M., & Brahmana, R. K. (2018). Cost Stickiness Effect on Firm's Performance : Insights From Malaysia. Asia-Pacific Management Accounting Journal, 13(1), 1–19.

Francis, B., Hasan, I., & Li, L. (2016). Abnormal real operations, real earnings management, and subsequent crashes in stock prices. *Review of Quantitative Finance and Accounting*, *46*(2), 217–260. https://doi.org/10.1007/s11156-014-0468-y

Golden, J., Mashruwala, R., & Pevzner, M. (2020). Labor adjustment costs and asymmetric cost behavior: An extension. *Management Accounting Research*, *46*(December 2018), 100647. https://doi.org/10.1016/j.mar.2019.07.004

Habib, A., & Hasan, M. M. (2019). Corporate life cycle research in accounting, finance and corporate governance: A survey, and directions for future research. *International Review of Financial Analysis*, *61*, 188–201. https://doi.org/10.1016/j.irfa.2018.12.004

Ibrahim, A. E. A., Ali, H., & Aboelkheir, H. (2022). Cost stickiness: A systematic literature review of 27 years of research and a future research agenda. *Journal of International Accounting, Auditing and Taxation*, *46*, 1–73. https://doi.org/10.1016/j.intaccaudtax.2021.100439

Kliestik, T., Sedlackova, A. N., Bugaj, M., & Novak, A. (2022). Stability of profits and earnings management in the transport sector of Visegrad countries. In *Oeconomia Copernicana* (Vol. 13, Issue 2). https://doi.org/10.24136/oc.2022.015

Rashid Khan, H. ur, Khidmat, W. Bin, Hares, O. Al, Muhammad, N., & Saleem, K. (2020). Corporate Governance Quality, Ownership Structure, Agency Costs and Firm Performance. Evidence from an Emerging Economy. *Journal of Risk and Financial Management*, *13*(7), 1–33. https://doi.org/10.3390/jrfm13070154

Roychowdhury, S., Shroff, N., & Verdi, R. S. (2019). The effects of financial reporting and disclosure on corporate investment: A review. *Journal of Accounting and Economics*, *68*(2–3). https://doi.org/10.1016/j.jacceco.2019.101246

Sinambela, E. A., & Djaelani, M. (2022). Cost Behavior Analysis and Categorization. *Journal of Social Science Studies (JOS3)*, *2*(1), 13–16. https://doi.org/10.56348/jos3.v2i1.18

Su, J., Wei, Y., Wang, S., & Liu, Q. (2023). The impact of digital transformation on the total factor productivity of heavily polluting enterprises. *Scientific Reports*, *13*(1), 1–21. https://doi.org/10.1038/s41598-023-33553-w

Venieris, G., Naoum, V. C., & Vlismas, O. (2015). Organisation capital and sticky behaviour of selling, general and administrative expenses. *Management Accounting Research*, *26*, 54–82. https://doi.org/10.1016/j.mar.2014.10.003

Lee, J.-Z., & Chiang, C.-H. (2018). D&O Insurance and SG&A Cost Stickiness. Ssrn, 1–33. https://ssrn.com/abstract=3234103https://ssrn.com/abstract=3234103Electroniccopyavailableat:https://ssrn.com/abstract=3234103Electroniccopyavailableat:https://ssrn.com/abstract=3234103Electroniccopyavailableat:https://ssrn.com/abstract=3234103

Linggardjaja, I. K. (2020). Faktor-faktor yang mempengaruhi cost stickiness: Suatu kajian pustaka. JIMEA : Jurnal Ilmiah MEA (Manajemen, Ekonomi Dan Akuntansi), 4(1), 52–65.

Malcolm, R. E. (1991). Overhead Control Implication on Activity Costing.

Nondorf, M. E., Singer, Z., & You, H. (2012). A Study of Firms Surrounding the Threshold of Sarbanes-Oxley Section 404 Compliance. Advances in Accounting, 28(1), 96–110. https://doi.org/10.1016/j.adiac.2012.02.009

Prabowo, M. A. (2018). Board Characteristics and Accounting Performance in the Banking Industry : The Indonesian Experience. 22(1), 114–126.

Prabowo, R., Hooghiemstra, R., & Van Veen-Dirks, P. (2018). State Ownership, Socio-political Factors, and Labor Cost Stickiness. European Accounting Review, 27(4), 771–796. https://doi.org/10.1080/09638180.2017.1329659

Roychowdhury, S., Shroff, N., & Verdi, R. S. (2019). The effects of financial reporting and disclosure on corporate investment: A review. Journal of Accounting and Economics, 68(2–3). https://doi.org/10.1016/j.jacceco.2019.101246

Setiawati, L. P. E., Rasmini, N. K., & Mimba, N. P. S. H. (2017). Perilaku Cost Stickiness dalam Kompensasi Eksekutif Bank BUMN dan Non BUMN yang Terdaftar di Bursa Efek Indonesia. E-Jurnal Ekonomi Dan Bisnis Universitas Udayana, 5, 1817–1848.

Sinambela, E. A., & Djaelani, M. (2022). Cost Behavior Analysis and Categorization. Journal of Social Science Studies (JOS3), 2(1), 13–16. https://doi.org/10.56348/jos3.v2i1.18

Su J, Wei Y, Wang S, Liu Q. The impact of digital transformation on the total factor productivity of heavily polluting enterprises. Sci Rep [Internet]. 2023;13(1):1–21. Available from: https://doi.org/10.1038/s41598-023-33553-w

Venieris, G., Naoum, V. C., & Vlismas, O. (2015). Organisation capital and sticky behaviour of selling, general and administrative expenses. Management Accounting Research, 26, 54–82. https://doi.org/10.1016/j.mar.2014.10.003

Windyastuti, W., Sunaryo, K., & Hastuti, S. (2017). Respon Investor Terhadap Pengumuman Laba Industri Perbankan Yang Menghadapi Kos Stickiness. Jurnal Keuangan Dan Perbankan, 21(1), 127–134. https://doi.org/10.26905/jkdp.v21i1.1233

Zulfiati, L., Gusliana, R., & Nuridah, S. (2020). Cost Stickiness: Behavior and Factors. 127(Aicar 2019), 143–145. https://doi.org/10.2991/aebmr.k.200309.032