



The blame game: COVID-19 crisis and financial performance

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Abstract

This research investigates the manager's impression management during the COVID-19 pandemic by gauging the agency theory framework. We examine how managers blame COVID-19 when the firms experience declining performance to retain their reputation. Overall, our results indicate that those firms with declining performance will blame COVID-19 compared to those with expected performance. It also indicates that the odds of COVID-19 appearing in the financial report will be higher in the declining performance firms. Our analysis confirms the impression management theory and agency theory by suggesting that, under declining performance, managers blame COVID-19 as the justifications to alter the attention from their incapability to the black swan event.

Keywords COVID-19 · Blame game · Financial performance · Agency problems · Impression management

Introduction

Did managers blame COVID-19 for their failure? Under the agency theory framework, managers (agents) are assumed to be self-interest orientation, rational actors, and risk-averse (Eisenhardt 1988; Jensen and Meckling 1976). Therefore,

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shareholders (principals) monitor managers by controlling their incentives. The outcome is crystal clear: the unsuccessful managers will be terminated, and the successful will receive higher benefits (Eisendhardt 1988). However, it is difficult for shareholders to monitor and evaluate the managers due to asymmetric information (Brahmana et al. 2020; Zolotoy et al. 2020; Doukas and Pantzalis 2003; Blanchard et al. 1994). For example, bad performance can be reported as a good performance with the earnings management (Li 2019; Ebrahimi et al. 2017), the high debt can be deferred with tax avoidance (Wahab and Holland 2012), the unethical behavior can be obfuscated by intensive Corporate Social Responsibility (CSR) (Kilian and Hennigs 2014), or the incompetency in handling economic turbulence can blame COVID-19 pandemic.

The “Black swans” hypothesis dominates economics and business literature, positing that a rare event causes a catastrophic economy (Wang et al. 2019; Goodell 2020; Barro and Jin 2021). Based on this logic, policymakers and industrial players assume that all black swan events disrupt the market and investments with financial distress outcomes. At the same time, opportunistic agents (the Chief Executive Officers and directors) use this generally accepted proposition as an occasion to hide their incapability in managing the firm. Previous empirical findings have supported that the agency issue increases along with rare events such as HIV/AIDS (Parker et al. 2018), Ebola (Oloruntoba et al. 2019), or even during the market crash (Lewellyn and Muller-Kahle 2012). How about COVID-19?

The COVID-19 pandemic is argued as a relatively different black swan compared to the previous events. From an economic perspective, the causes, policymakers’ experience during previous events, and the global focus on economic recovery may result in a different impact of COVID-19. Anecdotal evidence shows that the declining global economy is not as bad as the Monetary crisis in 1997 or the Global Financial crisis in 2008. The major stock markets did not fall dramatically, and countries like Vietnam, China, and Indonesia had a minor economic catastrophe. If COVID-19 should not be regarded as a black swan, should managers blame COVID-19 for their failure?

One reason for this intriguing phenomenon could be because directors act varies in how they respond to a rare event like COVID-19. Consistent with agency theory, which suggests that directors act accordingly to protect their interests and compensation (Jensen and Meckling 1976), financial distress is blamed on COVID-19. Given the generally accepted proposition that COVID-19 harms firm performance, directors may take it for granted and blame COVID-19. We empirically test this assumption to reveal that those firms that massively blame COVID-19 are those in financial distress. Meanwhile, those firms with sound financial performance will not expose the COVID-19 following agency theory’s alignment hypothesis. However, this vital topic has not received direct attention to COVID-19 research’s impact and is thus poorly understood.

Our main objective is to investigate the blaming game from the managers using the COVID-19 pandemic to hide their incapability in running the business. We exploit this intriguing question with several approaches to affirm the conclusion made. First, we examine the COVID-19 blaming game on the declining performance. We took COVID-19 blaming words and regressed them as the dependent

variable with declining performance. We further examine the blaming game by testing the COVID-19 blaming game on negative performance (losses companies) to ensure the conclusion remain intact. For robustness reasons, we re-examine our hypothesis using two different approaches. The first robustness test is by taking an alternative measurement of the dependent variables, in which we treat them as categorical variables and then test it under logistic regression. The second robustness test is by changing the point of view of the dependent variable, in which we took improved profitability instead of declining or negative profitability. We argue that this approach may reveal whether the COVID-19 blaming game is only incurred significantly from firms with lousy performance or also from firms with superior performance. Additionally, we add predictive margins to complete our hypothesis testing. Indeed, we only have one hypothesis, yet we test that hypothesis tediously for a rigorous and vigorous conclusion.

Addressing the blame game from managers during the COVID-19 pandemic is our focus. To answer this issue, we focus on the total counts of COVID-19 words in the financial report. We argue that managers will keep showing the COVID-19 words to distract shareholders' attention from the declining performance. Indeed, managers from firms with satisfactory performance will avoid using COVID-19 words in their financial reports. We exploit this argument in detail by utilizing robust regression.

Our study makes several contributions. First, we add to the literature by extending the understanding of managerial behavior during the COVID-19 pandemic. Second, we add to the empirical findings of the theoretical examination of the impression management and agency theory framework by extending the understanding of these two theories within the occurrence of black swan events. Rather than directly accepting that the declining performance is solely due to the COVID-19 pandemic, shareholders should notice the agency cost through their managers' impression management strategy. We find the supports for this theoretical assumption. Finally, we open a discussion about the elaboration of impression management and the theory of a firm. Previous general findings from accounting and finance literature extensively focus on corporate social responsibility, financial readability, or information disclosure. Those prior findings in that research area only focus on financial reporting as an antecedent or outcome, but not as personal motivation. Meanwhile, our findings imply that managers may use financial reports, letters to shareholders, annual reports, and additional voluntary disclosure as their impression management strategy to distract shareholders' attention, hence increasing the agency cost.

Literature review

Accounting and finance literature explain managerial behavior based on agency theory (Fama and Jensen 1983; Jensen and Meckling, 1976). This theory is used to understand better how managerial action is closely related to their compensation. Specifically, this theory exploits managers' behavioral tendency to overcome executive risk and earn higher self-interest benefits. That self-interest orientation leads them to avoid risky projects or pursue unethical strategic activities, such as earnings

management (Jiraporn et al. 2008) or tax avoidance (Desai and Dharmapala 2006). In a broader perspective, managers hire public relations (Jayamohan et al. 2017; Westphal and Graebner 2010) or decrease financial readability (Leung et al. 2015) to hide important information about their lack of performance.

In accounting and finance literature, impression management theory explains the managers' strategic action in emphasizing what is good about the company's performance and obfuscating what is bad about it. For instance, managers will have more financial disclosure when the company has a better performance than a declining performance (Cooper and Slack 2015). Research from Aerts and Yan (2017) and Cong et al. (2014) also reveals that companies' condition determines the tone of the letter of shareholders. The emphatic tone would be higher in the letter of declining performance or flamboyant tone to spin the real environmental performance. This impression management leads to asymmetric information with potentially high agency costs and grinds shareholder wealth (Leung et al. 2015; Wayne and Liden, 1995).

Given this assumed impression management, research suggests that managers will find reasoning to justify their failure (Jayamohan et al. 2017; Zeff 2008). In particular, managers use corporate financial reports to convey their reasoning for the declining performance. For example, Clatworthy and Jones (2003) note that managers use accounting narratives as their impression management strategy, such as utilizing self-serving attributions in which good performance is attributed to them, and unfavorable performance is attributed to external factors beyond the firm's control. This impression management might affect stakeholders' expectations by lowering their targeted performance (Li 2010).

On the one hand, based on agency and impression management theories, managers will impose an action that saves their position and reputation from unfavorable performance. Based on this logic, agency theory broadly suggests that the managers will blame external factors that are out of their control, like the COVID-19 pandemic. At the same time, the COVID-19 pandemic has been portrayed as the culprit of lousy performance, even though it is not empirically proven. This logic suggests that when unfavorable outcomes appear, the managers blame it on the COVID-19 pandemic instead of their incompetency in handling the crisis. Meanwhile, managers will less likely mention external factors as the performance leverage when the performance is good. Consistent with this, the impression management theory posits that managers' blaming tone is determined by their self-interest in retaining the job or chasing higher compensation (Langer et al. 2019; Holoien and Fiske, 2013; Godfrey et al. 2003). The arguments by Goodell (2020) and Shen et al. (2020) imply that the managers' action affects a firm's strategic choice by blaming COVID-19 for the declining performance. Managers will emphasize the external factors as the justification for their lousy performance.

Consistent with this, research from Graffin et al. (2011) and Yadav et al. (2007) noted that managers significantly put themselves in the spot of attention. Research from Cooper and Slack (2015) shows that managers will disclose more information if the firms have good performance, yet less if the firms have a bad performance. In impression management literature, Jayamohan et al. (2017) reveal that firms generate more media coverage around positive news than negative news. Alves and Silva

(2021) find that the amount of news published before press releases positively influenced the probability of abnormal return. This impression management comes as attribution to response to unfortunate events as a self-defense mechanism (Jayamohan et al. 2017).

The locus attribution elicits strong responses over shocking events (Weiner 1985). In particular, when management feels the need to self-enhance, they would create a specific impression on the stakeholders by manipulating the information (Jayamohan et al. 2017; Zott and Huy 2007; Kelley and Michela 1980). The management attempts consciously or unconsciously to control their image to influence shareholder perception. Notably, when self-interest motives are involved, management tends to make internal attribution for positive outcomes and external attribution for adverse outcomes (Kim 2013; Zuckerman 1979). Accounting and finance literature document this behavior from the words that appeared across a financial report or CEO interviews (Jayamohan et al. 2017; Kim 2013; Aerts 1994).

Therefore, it suggests that managers will have more COVID-19 words in the financial report to alter shareholders' attention if the firms have lousy performance. Because the declining performance will affect their reputation; thus, they blame the declining performance on COVID-19 words. If the firms' performance were good, the managers would make internal attribution; thus, the COVID-19 words will less likely to appear in the financial report. Based on these theoretical and empirical assumptions, we hypothesize: firms with bad profitability would have more COVID-19 words mentioned in the financial as the unfavorable event than firms with good profitability, implying the COVID-19 blaming game of the bad performers.

Methodology

Model specification

We build our model specification from accounting and finance literature. The management tone research, such as CITATION, surmises that financial information is a function of firm characteristics like size, leverage, revenue growth, asset efficiency, and cash holdings. We thus control for those standard factors to isolate the independent effect of firm performance. Then, the main independent variable, firm performance, is introduced to that baseline model. Therefore our model specification is as follows:

$$\begin{aligned} \text{Blaming Covid}_i = & \alpha_1 + \beta_1 \text{Performance}_i + \beta_2 \text{Size}_i + \beta_3 \text{Debt Ratio}_i \\ & + \beta_4 \text{Growth}_i + \beta_5 \text{Cash Holding}_i + \beta_6 \text{Asset Eff}_i + \varepsilon_i, \end{aligned} \quad (1)$$

where i denotes the cross-sectional firm samples. The dependent variable Blaming COVID is the tone of the directors indicating they are blaming COVID-19. Declined denotes the situation of firm performance. It implies that the beta coefficient of Declined is the statistical inference for our hypothesis testing. Meanwhile, the control variables are Firm Size (Size), Debt Ratio (DebtRatio), Revenue Growth (Growth), Cash Management (CashHolding), and Asset Efficiency (AssetEff).

It is noteworthy that we run all diagnostic tests of classical linear regression model assumptions before estimating the model. We utilized cross-sectional OLS regression under robust standard error and clustered the industrial effects. The beta coefficient 1 (β_1) from Model (1) estimation is the hypothesis testing of this research. To ensure the rigorousness and vigorousness of the conclusion, we also employ a series of robustness tests, such as logistic regression, alternative measurements of independent variables, predictive margin, and endogeneity test. A detailed description of each robustness test is provided inside their specific sub-section.

Measurements

Because the main objective of this research is to investigate the COVID-19 blaming game and firm performance, we provide a brief discussion of all variables used in the main hypothesis testing. A complete list of all variables used in this research is in Appendix A.

The measurement of COVID-19 blaming game

The quantification of blaming games relies on syntactic analysis, which is commonly used in impression management research. Previous research from Kindermann et al. (2021), Wu et al. (2021), and Wu et al. (2022) calculates the frequency of occurrence of the corresponding words in the annual reports published by listed companies as proxy indicators. This method is derived from accounting literature known as “tone at the top.” It is an unobtrusive method featuring textual analysis. Several research papers also adopt this method to calculate the CEO narcissism (Kontesa et al. 2021), management sentiments (Chen et al. 2021), director optimism (Huang et al. 2018), climate change campaign (Antonini et al. 2021), and strategic orientation (Wu et al. 2022). Therefore, we adopt this unobtrusive method by calculating the occurrence of COVID-19 words in the annual reports. Since this type of data might have a “right-biased” distribution, we normalize it using logarithmic forms of total words.

The measurement of firm performance (main independent variables)

The research proposition is that companies with lousy performance would blame COVID-19 as the culprit. Therefore, we take the traditional measure of performance as the base measure of the constructs: Return on Assets (ROA) and Return on Equity (ROE). To match it with our research framework, we use the declining ROA and ROA as the main independent variables. This measure is a categorical variable, in which “1” is if the firm had declining year-of-year performance and “0” otherwise.

For robustness reasons, we take a negative performance (financial losses) to capture the blaming game in detail. Similar to the declining performance measure, this measurement is a categorical variable, where a score of “1” if the firm had negative profitability and “0” otherwise. By having a categorical independent variable,

we can make a statistical inference whether COVID-19 words incurred significantly more on those companies with declining or negative performance (those with a score of “1”) or those companies with inclining or positive performance (those with a score of “0”).

Control variables

This research has five control variables: firm size, debt ratio, revenue growth, cash holdings, and asset efficiency. For the firm size, we use the natural logarithm of total assets. The debt ratio is the ratio of total debt to total assets. We take the year-of-year revenue growth to measure revenue growth. This research uses the percentage of total cash and cash equivalent to total assets for the cash holding. Finally, Asset Efficiency is defined as the stochastic frontier of revenue to total assets. We also cluster the industry effect (i.industry). We also use White’s robust standard error to rectify the issue of heteroscedasticity. Appendix A reports our variable definition.

Data and sample

Our data are cross-sectional, covering a sample of 245 listed firms in Indonesia. We took the financial information from the second-quarter interim report 2020 for three reasons. First, we argue that the effect of COVID-19 was not significant in the first quarter of 2020 (January–March). Second, the words “COVID-19” as the economic catastrophe crisis appeared extensive after March 2020. Third, the impact of COVID-19 was not fully reported in the first quarter interim financial report.

We use generally accepted measurements for our financial ratios. Meanwhile, the blame game is based on the literature on impression management literature. We search the word “COVID-19” in the financial report and analyze whether it was stated as the justification of financial performance. This unobtrusive method is commonly used in accounting and finance literature, such as CSR (Chantziaras et al. 2020; Duff 2016), narcissism (Kontesa et al. 2021), and tone at top (Ewelt-Knauer et al. 2020).

Choosing second quarter

This research uses the second-quarter interim financial report for three reasons. First, we argue that the effect of COVID-19 was not from January to March 2020. Most countries took non-pharmaceutical intervention (lockdown, restriction of movement, social distancing, and other NPIs) at the end of March 2020. Second, the directors’ tone in the second quarter is significantly different from the first quarter tone. We argue that the directors recognized the impact of COVID-19 on the second quarter rather than the first quarter. We compiled the COVID-19 words from the first quarter interim report and did the paired t test with the second quarter. We present the results in Table 1, revealing that the tone toward COVID-19 from the second quarter is significantly different from the first quarter (mean difference = 3.87

Table 1 Paired *T*-test results

	Mean	Diff	<i>T</i> value
COVID Q2	4.32	3.87	9.94
COVID Q1	0.45		
COVID Q2	4.32	− 0.18	− 0.98
COVID Q3	4.50		

p value < 0.01). We also tested the paired *t* test between the second and third quarters. The results show no statistically significant difference in the COVID-19 tone between Q2 and Q3.

Finally, the first quarter interim financial report faces a variance concomitant issue. Our anecdotal evidence shows that less than 30% mentioned COVID-19 in the first quarter interim financial report. It is significantly less than the second quarter, whereas 60% of the listed firms have mentioned COVID-19. Additionally, we did estimate the results from the first quarter. The results reveal that *F* value is insignificant, and the relatively small *R*-Squared confirms our variance concomitant issue.

Findings

Descriptive statistics

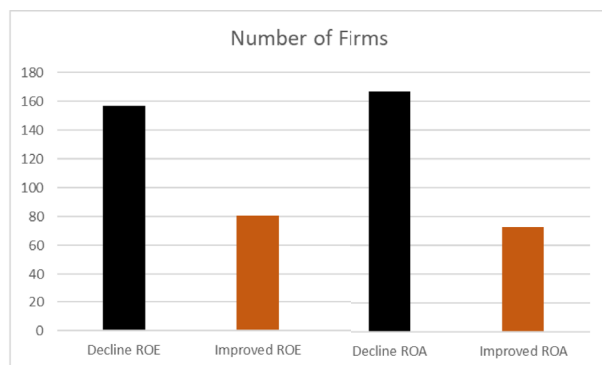
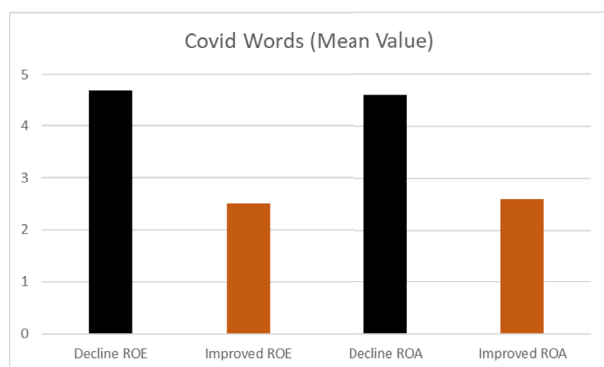
Table 2 presents the summary statistics of the variables. Focusing on the key variables, the mean value of ROA is − 0.05%, which is lower than the average firm value of 2.85% reported by Kontesa et al. (2021) for similar Indonesian firms. Our mean value of ROE is also lower: 0.75%. This value is lower compared to the mean value reported in Harymawan et al. (2019), which is 5.49%. For the COVID-19 words, Indonesian firms mentioned it averagely at 4.3 words, with a median of 2 words and a maximum value of 28 words. It implies the variation of the COVID-19 words data, suggesting that not all firms blame COVID-19 as the culprit of declining performance. We plot it in Fig. 1 to confirm our descriptive analysis.

Table 2 also shows the correlation matrix for the variables used as a model estimation. First, all the control variables have the expected signs, with the sole exception of asset efficiency. Larger and higher cash holding is associated with decreasing performance, while leverage and sales growth are negatively associated with the performance. Then, the correlation between the COVID-19 words and the performance provides a preliminary view of their univariate relationship. It shows a negative association with the coefficient value of -0.016 and -0.1127 with ROA and ROE, respectively. We further examine the univariate relationship by testing whether the COVID-19 words appeared differently in declining performance and inclining performance. Table 2 shows the results.

Figure 1 portrays two key descriptive statistics. First, Panel A shows the tabulation of bad performance companies (Decline ROA and Decline ROE) and profitable companies (Improved ROA and Improved ROE). It reveals that the declined

Table 2 Summary of statistics

	COVID	ROA	ROE	Size (LN)	Debt (%)	Growth (%)	Cash holding (%)	Asset efficiency (%)
COVID	1							
ROA	- 0.0166	1						
ROE	- 0.1127	- 0.0909	1					
Size (LN)	0.1345	0.2196	0.0802	1				
Debt (%)	- 0.0761	0.1139	0.0169	- 0.1819	1			
Growth (%)	- 0.0735	0.0816	- 0.0185	- 0.0924	- 0.0784	1		
Cash hold (%)	0.0611	0.2467	0.0910	- 0.0357	0.498	- 0.0066	1	
Asset efficiency (%)	0.0558	- 0.1295	- 0.0513	- 0.1165	- 0.1978	- 0.0265	- 0.2622	1
Min	0	- 66.15	- 177.38	22.58	26.63	- 93.95	0.02	0.01
Median	2	0.42	1.07	28.42	21.76	- 12.07	4.52	33.21
Max	28	12.01	116.93	33.47	74.22	1682.39	95.44	94.94
Mean	4.3	- 0.05	0.72	28.53	35.99	- 2.06	8.53	35.91
Std Dev	5.68	6.00	18.02	1.8	5.78	120.6	11.53	25.87
VIF score (ROA)		1.06		1.09	1.42	1.07	1.39	1.13
VIF score (ROE)			1.03	1.09	1.42	1.03	1.40	1.14

Panel A Number of Firms with Declined and Improved Performance*Panel B Mean value of COVID-19 mentioned***Fig. 1** Summary of firms with declined and improved performance

ROA firms and the declined ROE firms were 167 and 159 firms. Meanwhile, the improved ROA firms and the improved ROE firms were 73 and 81 firms. Therefore, total firms with bad performance are higher than total firms with performance. Panel B reports the tabulation of the mean value of COVID-19 words that appeared in the financial reports of both groups (bad performance and good performance). The figure shows that bad performance firms have two times higher COVID-19 words than good performance firms. For example, in the declining ROA and ROE group, the mean values of COVID-19 words that appeared in their financial report were 4.6 and 4.7 words, respectively. Meanwhile, firms with improved ROA and ROE have an average of 2.6 and 2.5 COVID-19 words reported in their financial report.

Regression results

Table 3 presents the result of regressions of different measures of firm performance. Columns (1) and (2) are the results for declining ROA and ROE, respectively. In

Table 3 Regression results for declined performance

	[1] IV is declining ROA	[2] IV is declining ROE	[3] IV is negative ROA	[4] IV is negative ROE
Performance	1.212* (0.699)	1.461** (0.684)	1.536* (0.791)	1.564* (0.823)
Size	0.389* (0.208)	0.390* (0.210)	0.447** (0.205)	0.445** (0.207)
Debt ratio	− 0.117*** (0.042)	− 0.118*** (0.043)	− 0.123*** (0.044)	− 0.123*** (0.044)
Growth	− 0.002** (0.001)	− 0.003*** (0.001)	− 0.003*** (0.001)	− 0.002** (0.001)
Cash holding	0.075*** (0.028)	0.078*** (0.028)	0.095*** (0.031)	0.094*** (0.031)
Asset efficiency	0.02 (0.013)	0.021* (0.013)	0.02 (0.013)	0.02 (0.013)
Constant	8.53 (5.954)	8.777 (5.996)	− 10.056* (5.918)	− 10.005* (5.965)

The value stated in the beta coefficient. Robust standard errors are reported in the parentheses. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

Column (1), declining ROA is negatively associated with Blaming COVID-19 ($\beta = 1.212$ SE = 0.699). Consistent with our hypothesis (H1), this result suggests that a firm with declining ROA exhibits more COVID-19. In economic terms, firms with declining ROA have more COVID-19 excuses in their financial report than a firm with good ROA.

Similarly, Column (2) reports that declining ROE assumes a negative and highly significant coefficient in blaming COVID-19 ($\beta = 1.461$ SE = 0.684). It practically suggests that firms with declining ROE disclose more COVID-19 terms in their financial report than those with good ROE. Moreover, it supports our hypothesis and confirms the impression management and agency theories.

To offer a more robust conclusion, we re-estimate model (1) by offering an alternative measurement of firm performance. Instead of taking the declining performance, we take a negative performance (financial losses) to capture the blaming game. Similar to the declining performance measure, this negative performance is also a dummy variable. We give “1” if the firm had negative profitability and “0” otherwise. Column (3) and (4) of Table 2 reports the results.

Column (3) reveals the negative relationship between negative ROA and COVID-19 words ($\beta = 1.536$ SE = 0.791). It suggests that a firm with a negative ROA tends to have more excuses about COVID-19 than a firm with a good ROA. It is consistent with our hypothesis. When we change the main effect to negative ROE, the conclusion remains the same. Column (4) shows that negative ROE has a negative effect on the COVID-19 ($\beta = 1.564$ SE = 0.823). It also indicates that a firm with declining ROE will blame it on COVID-19. Hence, the results confirm our hypothesis (explanation why declining ROA and COVID-19 excuses).

Robustness check: logistic regression

The regression results in Table 3 have COVID-19 as a continuous variable. As a robustness check, we re-estimate the model with logistic regression by transforming our COVID-19 data into categorical data. If the COVID-19 words from a firm

are higher than the median, we categorized them as “1” or high COVID-19 words. If it is equal to or lower than the median, we score “0”. The re-estimation model is reported in Table 3.

In the first column of Table 4 (Column 5), the logistic regression reveals the significant relationship between declining ROA and COVID-19 words ($\beta=0.552$ SE=0.317). It implies that firms with declining ROA have higher odds of blaming COVID-19 excessively than improved ROA firms. The difference in the probability of blaming COVID-19 between declining ROA firms and inclining ROA firms was 0.55%. Meanwhile, Column (6) reports that the declining ROE firms have a higher probability of blaming COVID-19 excessively than the improved ROE firms ($\beta=0.518$ SE=0.308). It surmises that the difference in the probability of blaming COVID-19 between declining ROE firms and inclining ROE firms was 0.518%. In short, our logistic regression results confirm our earlier findings that managers from the declining performance will put the blame on COVID-19 for their incompetency.

The logistic regression also estimates the association between negative performance and COVID-19 words. Column (7) shows that firms with negative ROA have a positive relationship with numerous COVID-19 words ($\beta=0.557$ SE=0.332). Practically, the result implies that firms with negative ROA have a higher probability of blaming COVID-19 than those with positive ROA. For the negative ROE, Column (8) also remarks that firms with negative ROE have higher probabilities of blaming more on COVID-19 than those with positive ROE. These negative performance findings conclude that managers would put more COVID-19 words as the rationale for their lousy performance.

Robustness check: endogeneity issue

We perform a robustness check for the concern of endogeneity. Because our main independent variable is performance, which is usually used as the dependent variable, reverse causality is possible. Furthermore, economics and finance research are vulnerable to the issues of measurement errors, unobserved variables, and simultaneity, which may harm the causal effects. Therefore, we perform a series of

Table 4 Logistic regression

	[5] IV is declining ROA	[6] IV is declining ROE	[7] IV is negative ROA	[8] IV is negative ROE
Performance	0.552* (0.317)	0.518* (0.308)	0.557* (0.322)	0.525*(0.314)
Size	0.121 (0.079)	0.126 (0.081)	0.145* (0.081)	0.143*(0.082)
Debt ratio	− 0.076* (0.040)	− 0.075** (0.038)	− 0.075** (0.036)	− 0.076** (0.038)
Growth	− 0.005 (0.004)	− 0.004 (0.004)	− 0.004 (0.003)	− 0.004(0.004)
Cash holding	0.038** (0.015)	0.040*** (0.015)	0.046*** (0.016)	0.046*** (0.016)
Asset efficiency	0.011* (0.006)	0.012** (0.006)	0.010* (0.006)	0.011*(0.006)
Constant	− 4.325* (2.351)	− 4.669* (2.408)	− 5.094** (2.420)	− 5.027** (2.429)

The value stated is the beta coefficient. Robust standard errors are reported in the parentheses. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively

Table 5 Endogeneity results

	TSLS							
	One-lagged							
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]
Declining ROA	1.242* (0.708)				1.965** (0.807)			
Declining ROE		1.545** (0.712)				1.644* (0.905)		
Negative ROA			1.518* (0.832)				5.288** (2.124)	
Negative ROE				1.547* (0.846)				4.837* (2.470)
COVID Q1	0.189 (0.337)	0.258(0.342)	0.067 (0.356)	0.099 (0.348)				
Size	0.387* (0.207)	0.388* (0.209)	0.446** (0.203)	0.443** (0.205)	0.433* (0.231)	0.377* (0.213)	0.627** (0.250)	0.580** (0.234)
Debt ratio	- 0.116*** (0.042)	- 0.117*** (0.043)	- 0.122*** (0.045)	- 0.123*** (0.044)	- 0.117*** (0.042)	- 0.117*** (0.043)	- 0.134*** (0.047)	- 0.133*** (0.047)
Growth	- 0.002** (0.001)	- 0.003*** (0.001)	- 0.003*** (0.001)	- 0.002** (0.001)	- 0.003** (0.001)	- 0.003** (0.001)	- 0.003** (0.001)	- 0.003** (0.001)
Cash holding	0.074*** (0.028)	0.077*** (0.028)	0.095*** (0.032)	0.094*** (0.032)	0.073** (0.029)	0.073** (0.029)	0.086*** (0.031)	0.088*** (0.031)
Asset efficiency	0.019 (0.013)	0.021 (0.013)	0.018 (0.013)	0.019(0.013)	0.02(0.013)	0.019 (0.013)	0.024*(0.013)	0.026* (0.014)
Constant	- 8.571 (5.968)	- 8.88 (6.017)	- 10.022* (5.898)	- 9.976*(5.957)	- 10.414 (7.752)	- 8.431 (6.764)	- 16.713** (8.059)	- 15.242** (7.506)

The value stated is the beta coefficient. Robust standard errors are reported in the parentheses. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively

robustness checks for the concern of endogeneity, such as One-Lagged (Kontesa and Lako 2021; Kontesa et al. 2021; Setiawan et al. 2021) and Two-Stage Least Square. Table 5 presents the results.

First, we re-estimate model (1) using a one-period lagged COVID-19 words. It means that we add the COVID-19 words in the Quarter 1 financial report and treat them as explanatory variables (Bellemare et al. 2017). Columns (1) and (2) reveal the estimation results, given that the declining performance (ROA and ROE) is the main independent variable. Meanwhile, Columns (3) and (4) report the estimation results when negative ROA and ROE are the independent variables. The results show that our main conclusion on the blaming game of bad performance firms remains intact. Firms with declining and negative profitability would have more COVID-19 words than firms with inclining and positive profitability, implying managers from bad performance firms would give the impression that COVID-19 was the reason for their bad performance.

This research employs TSLS to tackle a more pertinent concern of endogeneity, which is the reverse causality from COVID-19 words to firm performance. We follow the literature by taking five exogenous external instruments: previous year firm size, previous year firm profitability, controlling shareholders (family ownership), type of industry, and leverage. Then, we employ the second-stage regression using the predicted declining or negative profitability under the TSLS regime. Columns (5), (6), (7), and (8) report the estimation results.

The TSLS estimation results reaffirm the causal relationship running from declining and negative profitability to COVID-19 words. It has the same interpretation: firms with lousy performance would have more COVID-19 words than firms with positive performance. Therefore, there is a consistency of conclusion for all estimation results of our hypothesis testing.

Robustness check: predictive margins

We add another robustness test is a predictive margin, which a statistic based on a fitted model calculated over a dataset to reveal the projection of the COVID-19 blaming game. It provides an excellent approximation to the amount of change in COVID-19 words produced by a 1-unit change in declining or negative performance. Our predictive margins are the Adjusted Prediction at the Means (APM) approach, which specifies a single probability of $P(Y=1)$. We use the STATA command (syntax: margins, dydx) and run it to all four different independent variables.

To gain a view of a predictive margin setting, we plot the margin and show it in Fig. 2. It shows the marginal effect of bad performance on blaming COVID-19. When the performance is terrible (declining ROE, declining ROA, negative ROE, and negative ROA), the probability of having more COVID-19 words in the financial report will be high. Meanwhile, if the performance is good (improved ROE and ROA), the probability of having more COVID-19 words in the financial report will be low. Therefore, we can conclude that managers with

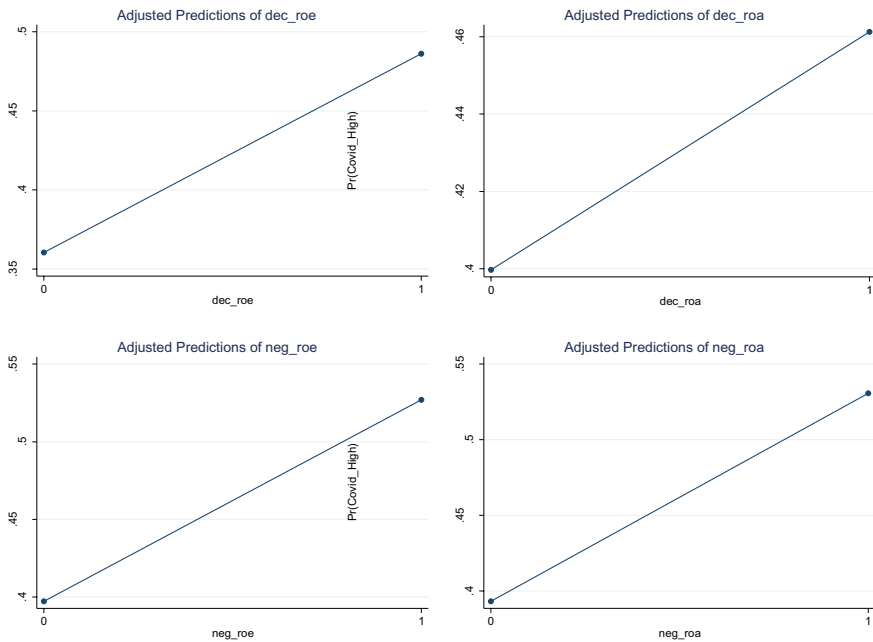


Fig. 2 Predictive margin results

lousy financial performance have a higher probability of altering the shareholders' attention by blaming COVID-19.

Robustness check: improved performance and COVID-19 words

Our main argument is that firms with declining performance will address COVID-19 as the culprit. The managers will mention more COVID-19 words in the financial report as the justification for the unfavorable events. This argument should also be viewed from the contrary, whereas firms with satisfactory performance will have fewer COVID-19 words in their financial report. To answer it, we re-estimate our main model by changing the main independent variable to the 2020 performance and improved performance. The findings are reported in Table 6. Columns (9) and (11) report the 2020 ROA and 2020 ROE results. Meanwhile, Columns (10) and (12) show the results for the improved ROA and ROE, respectively. Note that improved performance is defined as a positive financial firm's performance growth.

For the ROA model, the inferences vary. Column (9) shows that the ROA in 2020 has no significant association with the number of COVID-19 words. However, when we take the differences (Column 10), our regression result shows a significant relationship between improved ROA and total COVID-19 words ($\beta = -1.212$ SE = 0.699). The negative coefficient implies that firms with improved ROA have fewer COVID-19 words in the financial report than the COVID-19 words reported by firms with declined ROA, confirming our earlier findings.

Table 6 Regression results: improved performance and COVID-19 words

	ROA		ROE	
	2020 [9]	Improved [10]	2020 [11]	Improved [12]
Performance	− 0.062 (0.070)	− 1.212* (0.699)	− 0.042*** (0.010)	− 1.461** (0.684)
Size	0.414* (0.213)	0.389*(0.208)	0.415** (0.209)	0.390*(0.210)
Debt ratio	− 0.112*** (0.043)	− 0.117*** (0.042)	− 0.116*** (0.043)	− 0.118*** (0.043)
Growth	− 0.003** (0.001)	− 0.002** (0.001)	− 0.003** (0.001)	− 0.003*** (0.001)
Cash holding	0.078*** (0.030)	0.075*** (0.028)	0.077*** (0.029)	0.078*** (0.028)
Asset efficiency	0.017 (0.013)	0.02 (0.013)	0.018 (0.013)	0.021* (0.013)
Constant	− 8.338 (6.148)	− 7.319 (6.062)	− 8.388 (6.069)	− 7.316 (6.124)

The value stated is the beta coefficient. Robust standard errors are reported in the parentheses. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

When we use ROE as the proxy of financial performance, the results are consistent. Column (11) reveals that ROE has a negative effect on COVID-19 words ($\beta = -0.042$ SE = 0.010). It implies that the COVID-19 words appeared less in firms with higher ROE. For the improved ROE, the conclusion remains the same. Column (12) shows the negative relationship between improved ROE and COVID-19 words ($\beta = -1.461$ SE = 0.684). It indicates that firms with improved ROE have relatively fewer COVID-19 words compared to firms with declined ROE, confirming our earlier findings.

In a nutshell, this negative relationship suggests that managers from firms with improved performance seem to have fewer COVID-19 words in their financial reports. In other words, if the performance is good, the managers appear to neglect COVID-19 as a black swan event. It suggests the confirmation of the impression management theory and agency theory. Managers tend to take the credit if it benefits them and alter their attention if it harms their reputation. These supplemental analyses suggest that the manager utilized impression management during COVID-19 words. The declining performance during the pandemic is not always because of the COVID-19. It can also be the managers' incapability and incompetency in handling the organization. Indeed, a black swan event like COVID-19 has affected the company business, and some managers have successfully handled it, and some failed. Those firms with good performance mention less about COVID-19, and firms with lousy performance blame more on COVID-19.

Our findings align with previous findings, where managers tend to blame COVID-19 if the performance is bad but attribute COVID-19 as the factor lesser if the performance is good. Osma and Guillamón-Saorín (2011) argue that managers tend to communicate positive news to distort investors' perceptions of corporate achievements for their benefit. This research also states that managers will hold their good reputation by throwing self-serving disclosures that benefit their career and tenure. This blaming game is also found during the financial crisis, where Aresu (2015) reports that Italian CEOs play with graphical reporting

to obfuscate the real information. In a more recent finding, Liu (2020) finds that CEOs are motivated to disclose more CSR performance as a tactic of impression management in the hope of securing their position. Therefore, our findings align with previous studies and confirm impression and agency theories.

Conclusion

The main objective of this research is to investigate how managers use the COVID-19 pandemic as a rationalization for their failure in managing the company. The purpose is to assess how a manager blames external factors like a COVID-19 pandemic rather than their inefficiency or incapability. We test this presumption under agency theory and impression management theory framework. Specifically, we looked at how a manager will keep mentioning COVID-19 inside the financial report as their impression management strategy, creating an agency problem.

Our findings show a positive association between the numbers of COVID-19 mentioned in the financial report and the declining performance, suggesting that managers from a firm with declining performance mentioned more COVID-19 words in their financial report. In contrast, the manager from a firm with improved performance is less likely to mention COVID-19 in their financial report. Those results indicate that managers appear to put the blame on COVID-19 for their failure to maintain the company performance, confirming agency theory, which is consistent with a strong agency problem representing an impression management mechanism used by managers to retain their position and reputation.

We theorized that this finding is driven by the managers' self-interest that aims for compensation or job retention. To explore these findings robustly, we examine further whether managers from declining performance would have extensive COVID-19 words in their financial report using logistic regression. Specifically, we tested if the odds for the extensive appearance of COVID-19 words would be higher for the firms with declining performance than the firms with improved performance. Our logistic results were consistent with this expectation, supporting the notion that managers choose to blame COVID-19 for their lousy performance.

Overall, the findings are theoretically consistent with the agency theory argument that we offered in our hypothesis. Indeed, if managers are more likely to retain position and reputation, they have to impress the principal (shareholders) with their capability. When the performance of the firms declines, the managers have to seek justification for that bad performance that typically would harm their reputation by altering the spot of light to other external factors such as COVID-19. Therefore, those managers will keep providing COVID-19 words as the reason and keep showing COVID-19 words inside the financial report to distract shareholders' attention. Similarly, if managers have successfully improved their performance, the COVID-19 words will not appear significantly in the financial report. It is tally with the agency theory, in which managers attempt to put the spotlight on him/her whenever it benefits their self-interest and reputation.

Overall, this paper contributes to advancing our understanding of how a financial reporting practice is widely considered relevant for protecting the shareholder's wealth from impression management utilized by managers. We thus provide an interesting theoretical and empirical contribution to financial reporting implications during a black swan event like the COVID-19 pandemic. We highlight how managers blame unfavorable events for the declining performance, which that decline can be due to their incompetency. However, this research has several shortcomings due to the nature of the shocking event and theoretical scope. Other extensions can be further built upon this analysis. For example, more in-depth insight can be gained by examining the possible earnings management or tax avoidance activities. It would be an interesting insight to test the impression management in the microblogging setting. Future research may test total COVID-19 words that appeared on companies or the top executives' statements or news in Google Trends or Twitter and test it with the market-based performance, such as Tobin's Q or price crash risk. Additionally, some internal corporate governance attributes, ownership structure, or agent characteristics (under upper-echelons theory) can be another interesting insight to enrich the literature.

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Code availability The codes that support the findings of this study are available from the author on request.

Declarations

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References

- Aerts W (1994) On the use of accounting logic as an explanatory category in narrative accounting disclosures. *Acc Organ Soc* 19(4–5):337–353
- Aerts W, Yan B (2017) Rhetorical impression management in the letter to shareholders and institutional setting: a metadiscourse perspective. *Acc Auditing Accountability J* 30(2):1–30
- Alves CF, Silva AL (2021) Corporate communication and media coverage of abnormal returns—evidence from the Portuguese capital market. *Corp Commun Int J* 26(2):248–264

- Antonini C, Olczak W, Patten DM (2021) Corporate climate change disclosure during the Trump administration: evidence from standalone CSR reports. *Account Forum* 45(2):118–141
- Aresu S (2015) Graphical reporting in Italian Annual Reports during the financial crisis: impression management or incremental information? *Financ Report* 2015(1):77–106
- Barro RJ, Jin T (2021) Rare events and long-run risks. *Rev Econ Dyn* 39:1–25
- Bellemare MF, Masaki T, Pepinsky TB (2017) Lagged explanatory variables and the estimation of causal effect. *J Politics* 79(3):949–963
- Blanchard OJ, Lopez-de-Silanes F, Shleifer A (1994) What do firms do with cash windfalls? *J Financ Econ* 36(3):337–360
- Brahmana RK, You HW, Kontesa M (2020) Does CEO power matter for the performance of retrenchment strategy? *J Strategy Manag* 14:1–18
- Chantzias A, Dedoulis E, Grougiou V, Leventis S (2020) The impact of religiosity and corruption on CSR reporting: the case of US banks. *J Bus Res* 109:362–374
- Chen W, Wu H, Zhang L (2021) Terrorist attacks, managerial sentiment, and corporate disclosures. *Acc Rev* 96(3):165–190
- Clatworthy M, Jones MJ (2003) Financial reporting of good news and bad news: evidence from accounting narratives. *Acc Bus Res* 33(3):171–185
- Cong Y, Freedman M, Park JD (2014) Tone at the top: CEO environmental rhetoric and environmental performance. *Adv Acc* 30(2):322–327
- Cooper S, Slack R (2015) Reporting practice, impression management and company performance: a longitudinal and comparative analysis of water leakage disclosure. *Acc Bus Res* 45(6–7):801–840
- Desai MA, Dharmapala D (2006) Corporate tax avoidance and high-powered incentives. *J Financ Econ* 79(1):145–179
- Doukas JA, Pantzalis C (2003) Geographic diversification and agency costs of debt of multinational firms. *J Corp Finan* 9(1):59–92
- Duff A (2016) Corporate social responsibility reporting in professional accounting firms. *Br Account Rev* 48(1):74–86
- Ebrahimi SK, Bahraminasab A, Mamashli R (2017) The effect of financial crisis on earnings quality. *Acc Audit Rev* 23(4):415–434
- Eisenhardt KM (1988) Agency-and institutional-theory explanations: the case of retail sales compensation. *Acad Manag J* 31(3):488–511
- Ewelt-Knauer C, Schwering A, Winkelmann S (2020) Doing good by doing bad: how tone at the top and tone at the bottom impact performance-improving noncompliant behavior. *J Bus Ethics* 175:609–624
- Fama EF, Jensen MC (1983) Separation of ownership and control. *J Law Econ* 26(2):301–325
- Godfrey J, Mather P, Ramsay A (2003) Earnings and impression management in financial reports: the case of CEO changes. *Abacus* 39(1):95–123
- Goodell JW (2020) COVID-19 and finance: agendas for future research. *Financ Res Lett* 35:105112
- Graffin SD, Carpenter MA, Boivie S (2011) What's all that (strategic) noise? Anticipatory impression management in CEO succession. *Strateg Manag J* 32(7):748–770
- Harymawan I, Nasih M, Ratri MC, Nowland J (2019) CEO busyness and firm performance: evidence from Indonesia. *Heliyon* 5(5):e01601
- Holoien DS, Fiske ST (2013) Downplaying positive impressions: Compensation between warmth and competence in impression management. *J Exp Soc Psychol* 49(1):33–41
- Huang SC, Chen WD, Chen Y (2018) Bank liquidity creation and CEO optimism. *J Financ Intermed* 36:101–117
- Jayamohan P, McKelvie A, Moss TW (2017) Blame you, blame me: exploring attribution differences and impact in family and nonfamily firms. *Fam Bus Rev* 30(3):284–308
- Jensen MC, Meckling WH (1976) Theory of the firm: managerial behavior, agency costs and ownership structure. *J Financ Econ* 3(4):305–360
- Jiraporn P, Miller GA, Yoon SS, Kim YS (2008) Is earnings management opportunistic or beneficial? An agency theory perspective. *Int Rev Financ Anal* 17(3):622–634
- Kelley HH, Michela JL (1980) Attribution theory and research. *Ann Rev Psychol* 31(1):457–501
- Kilian T, Hennigs N (2014) Corporate social responsibility and environmental reporting in controversial industries. *Eur Bus Rev* 26(1):79–101
- Kim YHA (2013) Self attribution bias of the CEO: evidence from CEO interviews on CNBC. *J Bank Finance* 37(7):2472–2489

- Kindermann B, Beutel S, de Lomana GG, Strese S, Bendig D, Brettel M (2021) Digital orientation: conceptualization and operationalization of a new strategic orientation. *Eur Manag J* 39(5):645–657
- Kontesa M, Lako A (2021) board capital effect on firm performance: evidence from Indonesia. *Int J Bus Soc* 21(1):491–506
- Kontesa M, Brahmama R, Tong AHH (2021) Narcissistic CEOs and their earnings management. *J Manag Gov* 25:223–249
- Langer M, König CJ, Scheuss AI (2019) Love the way you lie: Hiring managers' impression management in company presentation videos. *J Pers Psychol* 18(2):84
- Leung S, Parker L, Courtis J (2015) Impression management through minimal narrative disclosure in annual reports. *Br Acc Rev* 47(3):275–289
- Lewellyn KB, Muller-Kahle MI (2012) CEO power and risk taking: evidence from the subprime lending industry. *Corp Gov* 20(3):289–307
- Li F (2010) Textual analysis of corporate disclosures: a survey of the literature. *J Acc Lit* 29(1):143–165
- Li V (2019) The effect of real earnings management on the persistence and informativeness of earnings. *Br Account Rev* 51(4):402–423
- Liu X (2020) Impression management against early dismissal? CEO succession and corporate social responsibility. *Corp Soc Responsib Environ Manag* 27(2):999–1016
- Oloruntoba R, Hossain GF, Wagner B (2019) Theory in humanitarian operations research. *Ann Oper Res* 283(1–2):543–560
- Osma BG, Guillamón-Saorín E (2011) Corporate governance and impression management in annual results press releases. *Acc Organ Soc* 36(4–5):187–208
- Parker DW, Dressel U, Chevers D, Zeppetella L (2018) Agency theory perspective on public-private-partnerships: international development project. *Int J Product Perform Manag* 67(2):239–259
- Setiawan D, Brahmama RK, Asrihapsari A, Maisaroh S (2021) Does a foreign board improve corporate social responsibility? *Sustainability* 13(20):11473
- Shen H, Fu M, Pan H, Yu Z, Chen Y (2020) The impact of the COVID-19 pandemic on firm performance. *Emerg Mark Financ Trade* 56(10):2213–2230
- Wahab NSA, Holland K (2012) Tax planning, corporate governance and equity value. *Br Account Rev* 44(2):111–124
- Wang Z, Wei W, Luo J, Calderon M (2019) The effects of petroleum product price regulation on macro-economic stability in China. *Energ Policy* 132:96–105
- Wayne SJ, Liden RC (1995) Effects of impression management on performance ratings: a longitudinal study. *Acad Manag J* 38(1):232–260
- Weiner B (1985) An attributional theory of achievement motivation and emotion. *Psychol Rev* 92(4):548
- Westphal JD, Graebner ME (2010) A matter of appearances: how corporate leaders manage the impressions of financial analysts about the conduct of their boards. *Acad Manag J* 53(1):15–44
- Wu F, Hu H, Lin H, Ren X (2021) Enterprise digital transformation and capital market performance: empirical evidence from stock liquidity. *Manag World* 37(7):130–144
- Wu K, Fu Y, Kong D (2022) Does the digital transformation of enterprises affect stock price crash risk? *Financ Res Lett* 48:102888
- Yadav MS, Prabhu JC, Chandy RK (2007) Managing the future: CEO attention and innovation outcomes. *J Mark* 71(4):84–101
- Zerfass A (2008) Corporate communication revisited: integrating business strategies and strategic communication. In Zerfass A, van Ruler B, Sriramesh K (eds) *Public relations research*. VS Verlag für Sozialwissenschaften, Wiesbaden, pp 65–96
- Zolotoy L, O'Sullivan D, Martin GP, Wiseman RM (2020) Stakeholder agency relationships: CEO stock options and corporate tax avoidance. *J Manag Stud* 58:782–814
- Zott C, Huy QN (2007) How entrepreneurs use symbolic management to acquire resources. *Adm Sci Q* 52(1):70–105
- Zuckerman M (1979) Attribution of success and failure revisited, or: the motivational bias is alive and well in attribution theory. *J Pers* 47(2):245–287

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