

MANAGEMENT OVERCONFIDENCE, SG&A (SELLING, GENERAL & ADMINISTRATIVE) STICKINESS SIGNALING, AND SUSTAINABLE FUTURE PERFORMANCE

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ABSTRACT

This study explores the link between SG&A stickiness signaling and sustainable future performance, as well as the impact of management overconfidence on this relationship. The findings show that SG&A stickiness signaling is favorably related to corporate future success, and this positive link is higher in the case of a sales decrease. This suggests that an increase in the SG&A to sales ratio during a period of dropping sales may be seen as indicating good future performance. Furthermore, as the study's focus, the findings demonstrate that SG&A stickiness signaling when sales decline has a greater impact on sustainable future performance when management overconfidence exists, supporting previous research that SG&A stickiness can boost long-term future performance when management is overconfident. This study has the potential to shift the perception of managerial overconfidence, which has previously been seen to be detrimental to a company.

Keywords: Management Overconfidence, SG&A Spending, SG&A Stickiness, Sustainable Future Performance.

JEL Classification: M41.

INTRODUCTION

Sustainability will be the issue of all sectors in 2022, as it has always been. Corporate investment is vital for sustainable corporate growth. Moreover, high-tech companies make huge investments in research and development. High-tech companies investing more R&D than market expectations soon before a capital increase is a signal from management, resulting in a lessened negative share price reaction at the time of the rights issue announcement (Qian et al., 2012). However, when a company is in financial distress due to internal or external factors, the first priority may be to cut investment. Unlike in 2021, where many organizations have re-prioritized their efforts in anticipation of the prolonged economic collapse caused by the COVID-19 outbreak, investment growth is expected in 2022, according to the Innovation Research Interchange's Annual Survey Data.

A company's investment choice is influenced by a variety of elements; clearly, the investment must be efficient and based on solid judgment. One of the decision-making drivers is managerial overconfidence (Malmendier & Tate, 2005a; 2005b; Malmendier et al., 2011, Hirshleifer et al., 2012). Individuals with overconfidence tendencies who are susceptible to the so-called better-than-average effect are said to have illogical decision-making abilities from a psychological standpoint (Larwood & Whittaker, 1977; Alicke, 1985; Finkelstein et al., 2009).

Previous research on managerial overconfidence was mostly unfavorable. It has been proposed that the quality of business information may be harmed, and that earnings management or rash investment could lead to a drop in firm performance or value (Malmendier & Tate, 2005, 2008; Hackbarth, 2008; Ben David et al., 2012; Libby &

Rennekamp, 2012; Schrand & Zechman, 2012; Baker & Wugler 2013; Ahmed & Duellman, 2013). Some studies, on the other hand, have confirmed that future corporate performance and corporate value can be improved through active R&D activities and innovative management activities such as pioneering new markets by raising optimistic expectations for the future due to managerial overconfidence (Galasso & Simcoe, 2011; Hribar & Yang, 2011). Overconfident managers are more likely to overestimate future demand and less likely to slash SG&A spending, even if sales dip. SG&A stickiness, an asymmetric cost behavior, increases as the manager's optimistic belief in future profitability grows (Anderson et al., 2003; Chen et al., 2013; Banker et al., 2014). SG&A spending may have a positive influence (Banker et al., 2011; Anderson et al., 2007; Homburg & Nasev, 2008; Baumgarten et al., 2010). The SG&A stickiness signal, according to Anderson et al. (2003), may indicate that management expect future sales to increase. Banker et al. (2014) discover that changes in previous-year sales alter management's positive predictions for future sales changes, hence influencing cost stickiness. Anderson et al. (2007) demonstrate that raising the SG&A to sales ratio during times of decreasing sales has a positive relationship with future profit.

This study first examines the influence of SG&A signaling on corporate performance to confirm the previously demonstrated benefits of SG&A spending, followed by the impact of managers' overconfidence on their relationship. In contrast to prior studies indicating that management overconfidence might have a detrimental impact on long-term future performance, overconfidence among CEOs may lead to overinvestment, to the point where managers' active investment actions may result in the organization's long-term success (Galasso & Simcoe, 2011; Hirshleifer et al., 2012). If management makes a positive assessment of the firm's future success and shows SG&A signaling to the company despite the reduction in sales, with the expectation of sales returning soon, the company's long-term future performance may be increased. The outcomes of the study might lead to a shift in public perception of CEO overconfidence. The rest of this paper is organized as follows: Section 2 covers the theoretical background, the literature review, and the development of the hypotheses. Section 3 outlines research samples and methods. The fourth section discusses descriptive statistics, correlations, and regression findings. The findings are discussed in Section 5. A summary and conclusions are included in the concluding part.

THEORETICAL BACKGROUND, LITERATURE REVIEW, AND HYPOTHESIS DEVELOPMENT

Managerial Overconfidence

Managers with self-confidence inclinations are overconfident in their competence, overconfident in their control, or both. Managers' self-confidence tendency can have a negative influence on business operations by driving them to make illogical judgments concerning corporate investment activities and financial reporting behavior. Many previous studies have offered diverse study findings on this subject. Overconfident managers tend to overestimate their own corporate management capabilities, compared to their objective capabilities (Brown & Sarma, 2007; Odean, 1998, 1999; Kahneman & Lovallo, 1993). From a psychological point of view, individuals are prone to the so-called better-than-average effect, if they overestimate their abilities in comparison to others (Larwood & Whittaker, 1977; Alicke, 1985).

Self-confidence tendencies in managers are viewed as cognitive characteristics of managers that result in incorrect decision-making (Finkelstein et al., 2009). Overconfidence has an impact on business policies such as investment choices (Malmendier & Tate, 2005a; 2005b; Malmendier et al., 2011, Hirshleifer et al., 2012), mergers and acquisitions

(Malmendier & Tate, 2008), dividends (Cordeiro, 2009), CEO turnover (Campbell et al., 2011), and financial reporting practices (Ahmed & Duellman 2013; Schrand & Zechman 2012; Hribar & Yang, 2013).

The focus of this research is on how overconfidence might affect investing decisions. Several prior investigations have demonstrated that managerial overconfidence influences corporate investment decisions (Malmendier & Tate, 2005a; 2005b; Malmendier et al., 2011; Hirshleifer et al., 2012). Management overconfidence may impede rational investment decision-making (Ben David et al., 2012; Hackbarth, 2008; Malmendier & Tate, 2005, 2008). Some studies suggest that CEO overconfidence may lead to overinvestment, which may negatively affect future performance. Overconfident managers tend to underestimate risk and overestimate future return, resulting in excessive investment activity (Ahmed & Duellman, 2013). Hribar & Yang (2011) discover that managers' overconfidence leads to overestimation of future performance and underestimation of income volatility. According to Schrand & Zechman (2012), managerial overconfidence is directly tied to investment activities, and excessive investment is predicted to create aberrant cash flows, lowering company value and increasing the potential of earnings management. Baker & Wugler (2013) propose that profit overestimation owing to management overconfidence can affect not just investment activities, but also company performance and corporate value.

Overinvestment by CEO overconfidence, on the other hand, may boost future performance to the extent that managers' active investment actions may produce sustainable future success of the organization (Galasso & Simcoe, 2011; Hirshleifer et al., 2012). Galasso & Simcoe (2011) argue that it is a significant opportunity for companies to conduct business more innovatively and aggressively, and that it has become an important potential for corporate mergers and acquisitions, as well as being active in establishing new markets. Hirshleifer et al. (2012) emphasize the positive aspects of managerial overconfidence, claiming that companies with high levels of overconfidence are more likely to engage in R&D activities, which can result in innovative intangible assets. Ultimately, it is expected to positively contribute to the development of future performance.

SG&A Stickiness Signaling

Corporate spending is essential for a company's growth, and many of these expenses are included in selling, general, and administrative (SG&A) expenses incurred in day-to-day business operations. Even when it comes to R&D costs, which are especially important for high-tech businesses, are eventually absorbed by SG&A expenses, unless they are capitalized. There are certain negative views on SG&A expenditures that are related to the agency problem (Lev & Thiagarajan, 1993; Ang et al., 2000; Baumgarten et al., 2010; Chen et al., 2012).

In contrast, some research have found that SG&A expenses have a positive effect. (Anderson et al., 2007; Homburg & Nasev, 2008; Baumgarten et al., 2010; Banker et al., 2011). When SG&A spending increases, the company's future performance improves, according to Anderson et al. (2007). Although a rise in SG&A expenditures may have a negative impact on current profit, Homburg & Nasev (2008) imply that it may have a favorable impact on future profit. Baumgarten et al. (2010) demonstrate that, while SG&A expenditures have downsides, they also have advantages. Banker et al. (2011) prove that SG&A spending has a positive impact on a company's return on investment for up to seven years following the expenditure, with sector differences. Intangible investment characteristics can aid SG&A expenditure in having a positive impact on future performance (Chen et al., 2012; Enache & Srivastava, 2017; Banker et al., 2019).

SG&A stickiness is an asymmetric cost behavior in which SG&A expenses decrease

when sales fall rather than increase when sales rise. SG&A stickiness can be induced by a variety of variables, including adjustment costs, management overconfidence, and the agency. Negative incentives, such as managerial opportunistic incentives for pursuing managers' private interests or agency conflict owing to conflicts of interest between managers and shareholders, influence asymmetric cost behavior (Chen et al., 2012; Dierynck et al., 2012; Kama & Weiss, 2013). Alternatively, management may be hesitant to over-adjust costs (Subramaniam & Weidenmier, 2003; Banker & Chen, 2006; Calleja et al., 2006). There may be positive future outlooks, and overconfident managers grow more enthusiastic about future earnings, resulting in increased cost stickiness (Anderson et al., 2003; Chen et al., 2013; Banker et al., 2014).

Overconfident managers are more prone to overestimate future demand and, as a result, are more likely to boost SG&A stickiness (Chen et al., 2013; Banker et al., 2014). Overconfident managers are less inclined to cut SG&A expenditures even when sales fall. As the manager's confidence in future profitability develops, so does the cost stickiness (Anderson et al., 2003; Chen et al., 2013; Banker et al., 2014).

Changes in sales in the previous year affect the management's optimistic expectations for future sales changes, thereby affecting the cost stickiness (Banker et al., 2014). Vice versa, the SG&A stickiness indication might imply that management anticipate more sales in the future, according to (Anderson et al., 2003). Anderson et al. (2007) discover that increasing the SG&A to sales ratio during periods of declining sales has a favorable link with future profit. That is, the SG&A signaling is more important when sales are down rather than when sales are growing. Overconfident CEOs will overestimate the possibility of a sales recovery in the near future, motivating them to maintain extra SG&A expenditures as sales drop, resulting in more cost stickiness.

Based on previous research, this study examines the influence of managers' overconfidence on the relationship between SG&A stickiness and long-term future success. Particularly, this research focuses on the situation where managers' overconfidence affects SG&A signaling even when sales are down. Therefore, the influence of SG&A signaling on long-term future performance is examined first, followed by the impact of managers' overconfidence on their relationship. As demonstrated in previous studies, managers' overconfidence itself may have a detrimental influence on long-term future performance. However, in the case where the management makes an optimistic judgment on the company's future performance and demonstrates SG&A signaling to the company despite the drop in sales, anticipating sales to return soon, the company's long-term future performance may be boosted. These assumptions are supported by Galasso & Simcoe (2011) and Hirshleifer et al. (2012), "*Overinvestment by overconfident CEOs may increase future performance to the point where managers' active investment activities may result in the organization's long-term success*". As a result, the following hypotheses are tested in this research.

H1: SG&A signaling is positively related with sustainable future performance.

H2: SG&A stickiness signaling when sales decline is strongly positively related with sustainable future performance.

H3: If there is management overconfidence, SG&A stickiness signaling when sales decline is more strongly positively related with sustainable future performance.

RESEARCH DESIGN

Sample Selection

This research makes use of financial data from Korea Investors Service-DATA from

2001 to 2019. Financial companies are excluded and the sample includes only non-financial companies listed on the Korean Stock Exchange (KSE) with fiscal years ending on December 31. The top and bottom 1% of all continuous variables are winsorized to reduce the influence of outliers, and the research comprises 25,514 firm-year data. Table 1 shows the industry distribution of the sample.

Industry	Number of Firms Years	%
Agriculture / Fishing / Forestry / Mining	117	0.46
Manufacturing	14,476	56.74
Electricity / Environment / Water supply	276	1.08
Construction	870	3.41
Retail / Wholesale	2,252	8.83
Transportation / Warehousing	439	1.72
Lodging / Restaurants	54	0.21
Broadcasting / Communication / Publication	1,890	7.41
Computer / Information / Medical	774	3.03
Leasing / Real Estate / Renting	44	0.17
Biopharma/Biotech	2,296	9
Others	2,026	7.94
Total	25,514	100

Regression Model and Variable Measurement

The OLS model is used to investigate Hypothesis 1 with sustainable future performance as the dependent variable. The regression model is shown below.

$$\text{PERSROA}_{i,t+1} = \alpha + \beta_1 \text{SGAsig}_{i,t} + \sum \alpha_j X_j + \sum \alpha_k \text{IND}_k + \sum \alpha_l \text{YEAR}_l + \varepsilon_{i,t} \quad (1)$$

Where the persistence of Return on Asset (ROA), which is a proxy for sustainable future performance, is denoted by $\text{PERSROA}_{i,t+1}$. The following regression model is used to calculate PERSROA, with the coefficient β_1 serving as a measure of ROA persistence. The return on assets (ROA) is calculated by dividing net income by total assets.

$$\text{ROA}_{i,t+1} = \alpha + \beta_1 \text{ROA}_{i,t} + \varepsilon_{i,t} \quad (2)$$

Following Banker & Chen (2006) and Anderson et al. (2007), the SG&A signal is measured. SGAsig is the change in the SG&A expense-to-sales ratio. The following proportional cost model is used to calculate the SG&A stickiness signal, which is a change in the ratio of SG&A spending to sales.

$$\text{SGA stickiness signal} = \frac{\text{sg\&a}_t}{\text{sales}_t} - \frac{\text{sg\&a}_{t-1}}{\text{sales}_{t-1}} \quad (3)$$

The other element determining company performance is $X_{i,t}$. The first factor to consider is leverage, which is determined by dividing total liabilities by total assets. Size is also regulated. The natural log of total assets is used to calculate size. Tobin's q, as utilized in previous research, is employed to control company value (McConnell & Servaes, 1990; Simon & Sullivan, 1993; Rao et al., 1994; Dahya et al., 2007). Tobin's q is computed as the market value of equity plus liabilities, all divided by total assets. The market-to-book ratio is calculated as the market value of equity divided by the book value of equity. Sales growth, the changes in sales, is defined as $(\text{sales}_t - \text{sales}_{t-1})/\text{sales}_{t-1}$, and OCF, operational cash flows

divided by assets, are also included. Employee intensity, calculated by dividing the number of employees by sales, is also included. Having a large employee may result in inefficient costs. YEAR is a dummy variable for the year, and IND is a dummy variable for the industrial sector, as defined by the one-digit Korea Standard Industry Code.

Hypotheses 2 are investigated using the regression model shown below.

$$\text{PERSROA}_{i,t+1} = \alpha + \beta_1 \text{SGAsig}_{i,t} + \beta_2 \text{SGAsigDEC}_{i,t} + \sum \alpha_j \text{X}_j + \sum \alpha_k \text{IND}_k + \sum \alpha_l \text{YEAR}_l + \varepsilon_{i,t} \quad (3)$$

SGAsigDEC is the change in SG&A expenditures when sales decrease.

The following model is used to test Hypothesis 3.

$$\text{PERSROA}_{i,t+1} = \alpha + \beta_1 \text{SGAsig}_{i,t} + \beta_2 \text{SGAsigDEC}_{i,t} + \beta_3 \text{OC}_{i,t} + \beta_4 \text{SGAsigOC}_{i,t} + \sum \alpha_j \text{X}_j + \sum \alpha_k \text{IND}_k + \sum \alpha_l \text{YEAR}_l + \varepsilon_{i,t} \quad (4)$$

OC denotes managerial overconfidence. To measure managerial overconfidence, Chen et al. (2013) utilize option exercise, Banker et al. (2014) use a rise in sales over the previous year, and Ahmed & Duellman (2013) use capital spending compared to the industry average. In this study, management overconfidence is quantified using Equation (5) below, with the coefficient β_1 serving as a measure of overconfidence, assuming that Tobin's Q appropriately represents the company's optimal investment amount (Tobin 1969; Hayashi 1982; Hubbard 1998).

$$\text{Capex}_t = \alpha + \beta_1 \text{TQ}_{i,t} + \beta_2 \text{OCF}_{i,t} + \varepsilon_{i,t} \quad (5)$$

Capex is calculated by dividing capital expenditure by total assets. Tobin's q is calculated by dividing the market value of equity plus liabilities by the total assets. Management's investment decisions are influenced not just by Tobin's Q, but also by the company's internal finances. It also states that procurement availability may be impacted (Kaplan & Zingales, 1997; Alti, 2003; McNichols & Stubben, 2008). OCF, operational cash flows divided by assets.

SGAsigOC is the interaction between age at SGAsigdum and managerial overconfidence. SGAsigdum is a dummy variable which is coded as 1 if SGAsigDEC is positive, and 0 otherwise.

EMPIRICAL RESULTS

Descriptive Statistics and Correlations

Table 2 displays the descriptive statistics for the key variables. PERSROA has a mean (median) of 0.0124 (0.0126). SGAsig has a mean (median) of 0.0437 (0). SGAsigDEC has a mean (median) of 0.3454 (0). OC has a mean (median) of -0.0791 (-0.0097). SGAsigOC has a mean (median) of -0.0071(0). The means (medians) for LEV, SIZE, GROW, OCF, TQ, and EMPINT are 0.4174 (0.4149), 18.5631 (18.3706), 0.1665 (0.1365), 0.0507 (0.0490), 0.9148 (0.9166), and 0.0001 (0.0001), respectively.

Variables	Mean	StdDev	Median	Q1	Q3
PERSROA	0.0124	0.0018	0.0126	0.0122	0.0132
SGAsig	0.0437	27.6285	0	-0.0141	0.0166
SGAsigDEC	0.3454	22.9102	0	0	0.0023
OC	-0.0791	2.6993	-0.0097	-0.0269	0.0113
SGAsigOC	-0.0071	0.0495	0	0	0
LEV	0.4174	0.2116	0.4149	0.2481	0.5698
SIZE	18.5631	1.4818	18.3706	17.576	19.3288
GROW	0.1249	0.5947	0.0364	-0.0658	0.1926
TQ	0.9148	0.9166	0.6207	0.3564	1.1067
OCF	0.0507	0.1038	0.049	-0.0017	0.1059
EMPINT	0.0001	0.0004	0.0001	0.0001	0.0001

Note:

PERSROA	: persistence of Return on Asset
SGAsig	: the change in ratio of SG&A expenses to sales
SGAsigDEC	: the change in ratio of SG&A expenses to sales when sales decrease
OC	: management overconfidence
SGAsigOC	: the interaction term of SGAsigDEC and OC
LEV	: total liabilities divided by total assets
SIZE	: natural logarithm of total assets
GROW	: sales growth, the changes in sales = $(sales_t - sales_{t-1})/sales_{t-1}$
OCF	: operating cash flow divided by total assets
TQ	: Tobin's q, computed as the market value of equity plus liabilities, all divided by total assets
EMPINT	: number of employees divided by sales

Table 3 displays the pairwise correlations. Significant positive correlations are observed between sustainable future performance and SGAsigDEC when management overconfidence exists. To test for multi-collinearity, the variance inflation factors (VIFs) for all variables less than 10 and mean VIFs of 1.05 are computed. There is no problem with multi-collinearity.

Variable	PERSR OA	SGAs ig	SGAs ig DEC	OC	SGAs ig OC	LEV	SIZE	GRO W	OCF	TQ	EMPI NT
PERSR OA	1										
SGAsig	-0.0034	1									
SGAsig DEC	-0.0309*	0.829 4*	1								
OC	0.0016	- 0.000 1	- 0.000 2	1							
SGAsig OC	0.1146*	- 0.015 6*	- 0.016 1*	0.113 5*	1						
LEV	-0.2375*	- 0.006 3	- 0.006 2	-0.007	0.002 6	1					
SIZE	0.1141*	- 0.004 5	- 0.011 4*	0.015 4*	0.055 2*	0.068 2*	1				

GROW	0.1085*	- 0.085 6*	- 0.025 0*	0.061 1*	0.168 8*	0.053 9*	0.009 1	1			
OCF	0.5258*	- 0.006 4	- 0.030 9*	- 0.000 5	0.083 6*	- 0.118 7*	0.058 3*	0.0744 *	1		
TQ	-0.0339*	0.015 9*	0.033 4*	0.006 2	- 0.054 7*	- 0.309 1*	- 0.183 6*	0.0743 *	0.015 7*	1	
EMPIN T	-0.0284*	0.711 5*	0.868 8*	- 0.000 8	- 0.020 6*	- 0.001 1	- 0.013 6*	- 0.0280 *	- 0.028 7*	0.044 2*	1

Note: * $p < 0.05$

REGRESSION RESULTS AND DISCUSSION

Table 4 shows the results of the OLS regression for the link between long-term future performance and the SG&A spending. Model 1's findings support hypothesis 1. SG&A spending have been proven to have a favorable influence in a number of prior research (Anderson et al., 2007; Homburg & Nasev, 2008; Baumgarten et al., 2010; Banker et al., 2011; Chen et al., 2012; Enache & Srivastava, 2017; Banker et al., 2019). The findings imply that SG&A spending has a substantial positive link with future performance ($p < 0.01$). This is consistent with the findings of previous studies.

Furthermore, Model 2 shows that the association between sustainable future performance and SG&A stickiness signals when sales decline. The findings corroborate the prediction, revealing that the SG&A stickiness signal is more strongly positively connected with future performance ($p < 0.01$) than the connection between SG&A and future performance. An increase in the SG&A to sales ratio during periods of dropping sales, as reported by Anderson et al. (2007), might be interpreted as offering favorable information regarding future performance.

More crucially, as demonstrated by the Model 3 results, an increase in the SG&A to sales ratio during periods of declining sales is much more strongly positively related to future performance when management overconfidence prevails ($p < 0.01$). As previously shown in several previous studies, the findings also suggest that managers' overconfidence has a detrimental influence on future performance. As a result, they have a strong negative connection ($p < 0.01$).

The findings also support the claims of several previous studies (Galasso & Simcoe, 2011; Hirshleifer et al., 2012) that SG&A stickiness can boost long-term future performance when management overconfidence exists as well as the argument that increasing the SG&A to sales ratio during periods of declining sales has a positive relationship with future profit (Anderson et al., 2003; Anderson et al., 2007). It implies that the overconfidence of managers who can make sound judgments with the expectation of positive and optimistic future performance, rather than making an illogical decision about spending, is not necessarily detrimental to company operations.

In all models, the control variables SIZE, GROW, and OCF are significantly positively related with long-term future performance. In all models, LEV, TQ, and EMPINT have a negative relationship with long-term performance.

Table 4				
REGRESSION RESULTS: SUSTAINABLE FUTURE PERFORMANCE – SG&A STICKINESS SIGNAL				
Variables	Expected Sign	Dependent Variable: Sustainable Future Performance		
		Model 1	Model 2	Model 3
Constant	?	0.0085*** (45.91)	0.0085*** (46.77)	0.0087*** (47.48)
SGAsig	+	0.0001*** (5.11)	0.0001** (2.10)	0.0001** (2.05)
SGAsigDEC	++	-	0.0001*** (11.08)	0.0001*** (10.92)
OC	-	-	-	-0.0001** (-2.03)
SGAsigOC	+++	-	-	0.0019*** (10.36)
LEV	-	-0.0025*** (-53.62)	-0.0025*** (-53.93)	-0.0024*** (-53.93)
SIZE	+/-	0.0002*** (35.27)	0.0002*** (34.18)	0.0002*** (34.06)
GROW	+	0.0003*** (17.28)	0.0003*** (16.76)	0.0003*** (14.68)
OCF	+	0.0072*** (75.19)	0.0071*** (74.57)	0.0071*** (73.75)
TQ	+/-	-0.0001*** (-11.06)	-0.0001*** (-10.15)	-0.0001*** (-9.52)
EMPINT	-	-0.7332*** (-5.37)	-6.9262*** (-12.04)	-6.8085*** (-11.86)
Industry dummies		Included		
Year dummies		Included		
F value		383.47***	378.20***	363.14***
Adjusted		0.3505	0.3536	0.3566
N		25,514	25,514	25,478

Note.

See Table 2 for variable definitions.

t-values are shown in parentheses. * $p < 0.10$ ** $p < 0.05$ *** $p < 0.01$

Opinions on the impact of SG&A expenditure on corporate performance, which accounts for a significant portion of a company's expenses on its income statement, have long been varied. In addition to beliefs that SG&A spending is related with negative elements deriving from the agency problem (Lev & Thiagarajan, 1993; Ang et al., 2000; Baumgarten et al., 2010; Chen et al., 2012), beneficial aspects have also been proven (Anderson et al., 2007; Homburg & Nasev, 2008; Baumgarten et al., 2010; Banker et al., 2011; Qian et al., 2012). According to this optimistic viewpoint, while an increase in SG&A costs may have a detrimental impact on current earnings, the company's future performance improves. The intangible investment features of SG&A expenditure, in particular, emphasize the favorable influence on future performance (Chen et al., 2012; Enache & Srivastava, 2017; Banker et al., 2019).

When management is overconfident, SG&A stickiness, an asymmetric cost habit, grows. Overconfident managers become more optimistic about future profitability, resulting in higher cost stickiness (Anderson et al., 2003; Chen et al., 2013; Banker et al., 2014). When management overconfidence and SG&A stickiness are combined, rather, it is linked to the management's desire and enthusiasm to actualize the management's positive aspirations for the company's future, which might bring favorable outcomes.

Several hypotheses were generated and evaluated in this study based on earlier research findings. To begin, this study verified that SG&A signaling is positively connected

with corporate future performance, as previously demonstrated in a number of studies (Anderson et al., 2007; Homburg & Nasev, 2008; Baumgarten et al., 2010; Banker et al., 2011; Chen et al., 2012; Enache & Srivastava, 2017; Banker et al., 2019). Second, it was demonstrated that this beneficial correlation was stronger in the event of a sales decline. As reported by Anderson et al. (2007), an increase in the SG&A to sales ratio during a period of declining sales may be interpreted as providing favorable information regarding future performance. As the study's focal point, it was also proven that SG&A stickiness signaling when sales decrease has a greater impact on sustainable future performance when there is management overconfidence. The findings back up previous research that SG&A stickiness can boost long-term future performance when management is overconfident (Galasso & Simcoe, 2011; Hirshleifer et al., 2012).

CONCLUSION

The results can be seen that when there is SG&A stickiness as optimism for future performance owing to management overconfidence, managers strive hard to achieve these expectations, and strong future performance ensues. This study has the potential to modify the perception of managerial overconfidence, which has hitherto been addressed in negative ways. In the future, it is hoped that an expanded study will be conducted with more factors would be done to investigate these favorable aspects.

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