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Stakeholder Orientations and Cost Management*

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Stakeholder Orientation and Cost Management

Abstract

We examine the effect of stakeholder orientation on firms' cost management as proxied by selling, general, and administrative (SG&A) cost stickiness. Using a sample of 19,783 firm-years, we find that customer and employee orientation are associated with greater SG&A cost stickiness. Furthermore, the effect of customer orientation on SG&A cost stickiness is more prominent in firms where SG&A costs create high future value, growth firms, and firms with strong corporate governance. In contrast, the effect of employee orientation on SG&A cost stickiness is stronger in firms where SG&A costs create low future value, mature firms, and firms with weak corporate governance. Overall, the association between customer orientation and SG&A cost stickiness is consistent with efficiency considerations (i.e., adjustment costs). In contrast, the association between employee orientation and SG&A cost stickiness is consistent with agency motives such as empire building or "a preference for a quiet life." In sum, we provide evidence that corporate orientation toward different stakeholders can have different efficiency implications in the context of SG&A resource adjustments and cost management.

1. Introduction

Stakeholder orientation, hereby defined, reflects the relative attention a firm gives to its nonshareholding stakeholders, such as customers, employees, communities, and the natural environment (Berman, et al. 1999; Stavrou et al. 2007; Crilly and Sloan 2012).[1]

[1] Corporations have become increasingly concerned about how their actions impact nonshareholding stakeholders (Wang 2013). The 8th Conscious Capitalism CEO summit held in 2013 attracted more than

Accounting researchers have explored many issues surrounding external disclosure and stakeholder management (Dhaliwal et al. 2011; Moser and Martin 2012; Kim et al. 2012). Yet the implications of stakeholder orientation on a firm's internal resource management and adjustment have remained largely unexplored. Given the growing attention paid to stakeholders by both executives and academics, it is important to understand whether stakeholder orientation affects firms' internal management practices, including resource adjustment decisions.

We examine how stakeholder orientation affects a firm's resource adjustments, captured by SG&A cost stickiness. Cost stickiness is itself a growing body of research (e.g., Banker and Byzalov 2014). SG&A costs typically account for a significant fraction of a company's total costs. In our sample of 19,783 observations from 1990 to 2013, the mean (median) ratio of SG&A costs to total costs (including both cost of goods sold and SG&A costs) is 32 (27) percent. Anderson et al. (2003) document that SG&A costs are *sticky* in that they decrease less when sales fall than they increase when sales rise by an equivalent amount. Anderson et al. (2003) propose two theories underlying the observed cost stickiness: adjustment cost theory and agency theory. Adjustment cost theory suggests that firms incur adjustment costs (e.g., severance pay to dismissed employees, loss of employee morale, or training costs for new employees) when making resource capacity adjustments. When sales increase, managers must acquire the required resources, whereas when sales decrease, managers may intentionally delay reducing

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800 attendees, including business leaders such as John Mackey (Whole Foods' co-CEO), Doug Rauch (Trader Joe's former president), and Howard Behar (Starbucks' former president). The Conscious Capitalism movement embraces the idea of maximizing benefits for all stakeholders rather than merely for shareholders (Wang 2013). An increasing number of firms known for their hard-nosed, for-profit approach to business—such as GE, Google, Johnson & Johnson, and Wal-Mart—have embarked on efforts to create shared value for all stakeholders (Porter and Kramer 2011).

resource capacity to avoid adjustment costs, which results in cost stickiness (Banker et al. 2013). Agency costs can also contribute to cost stickiness because managers have empire building incentives or "a preference for a quiet life," such that they refrain from cutting slack resources when sales decline. Subsequent work has identified factors associated with cost stickiness, including prior activity change, managerial expectations, and incentives (Chen et al. 2012; Dierynck et al. 2012; Banker and Byzalov 2014).

Stakeholders such as customers, employees, communities, and the environment can directly or indirectly influence a firm's operations. We focus on customer relations and employee relations as they capture corporate orientation toward two primary stakeholder groups: customers and employees (Berman et al. 1999; Kim et al. 2012). By examining different stakeholder areas, we are able to distinguish heterogeneous effects of various stakeholder orientations on resource adjustments.[2]

We hypothesize that customer-oriented and employee-oriented firms have greater SG&A cost stickiness. These firms incur a greater amount of out-of-pocket costs arising from SG&A resource adjustments (e.g., hiring, training, and firing costs per employee) and likely incur larger implicit adjustment costs such as loss of employee morale, reduced customer service quality, and lost sales.[3] As a result of greater adjustment costs, customer-oriented and employee-oriented firms have greater SG&A cost stickiness. In addition, due to agency incentives such as empire building and a preference for a quiet

[2] Prior accounting studies of stakeholder orientation often combine measures of individual stakeholder management areas and focus on their aggregate effect (e.g., Dhaliwal et al. 2011). However, aggregating these areas can mask the distinct impact that individual stakeholder management areas may have on resource capacity management and cost behavior.

[3] Adjustment costs are the costs incurred to "remove committed resources and to replace those resources if demand is restored" (Anderson et al. 2003, 49). Adjustment costs can be either explicit or implicit. Examples of explicit (out-of-pocket) adjustment costs include transaction costs to sell equipment, severance payments to dismissed employees, and employee hiring and training costs if demand recovers. Examples of implicit costs include loss of employee morale, reduced effort, and increased turnover among remaining employees after layoffs (Luthans and Sommer 1999; Trevor and Nyberg 2008).

life (Jensen 2002; Bertrand and Mullainathan 2003), managers from such companies are more likely to find an excuse to delay or refrain from cutting SG&A costs at times of weak demand. Thus, both adjustment cost theory and agency considerations predict that SG&A cost stickiness will increase with customer and employee orientation.

As predicted, we find that when firms have higher customer orientation (as measured by product ratings) and employee orientation (as measured by employee relation ratings), their SG&A costs exhibit greater stickiness. In contrast, we find no such effect for corporate orientation toward workplace demographic diversity, communities, or the natural environment. This suggests that these stakeholder management areas likely receive less management attention (Crilly and Sloan 2012).

We then examine whether the effects of stakeholder orientation on cost stickiness are more consistent with adjustment cost theory or agency theory. Under adjustment cost theory, the association between customer or employee orientation and SG&A cost stickiness is likely to be stronger when SG&A costs create high future value, when a firm has high growth potential, or when a firm has strong corporate governance. We expect this because these firms are more likely to focus on efficiency considerations and thus be more sensitive to adjustment costs when altering SG&A resource capacity. In contrast, under agency theory, the association between customer or employee orientation and SG&A cost stickiness is likely to be stronger when SG&A costs create low future value, when a firm has low growth potential, or when a firm has weak corporate governance. This expectation is because agency problems for these firms are more severe, and managers may use stakeholder orientation as a convenient excuse to delay or refrain from cutting SG&A costs.

We find that customer orientation increases SG&A cost stickiness for firms with SG&A costs that create high future value, firms with high growth potential, and firms with strong corporate governance. These findings are consistent with adjustment cost theory, suggesting that efficiency considerations better explain the effect of customer orientation on SG&A cost stickiness. In contrast, employee orientation increases SG&A cost stickiness for firms with SG&A costs that create low future value, firms with low growth potential, and firms with weak corporate governance. These results are consistent with agency theory, indicating that agency incentives such as empire building and a preference for the quiet life better explain the association between employee orientation and SG&A cost stickiness.[4]

The main insight from our paper is that corporate orientation toward different stakeholders has different efficiency implications for managers' resource adjustment decisions. Customer orientation increases SG&A cost stickiness because cutting SG&A costs during a sales decline in customer-oriented firms likely generates greater long-term harm in product markets than short-term savings in customer-oriented firms. In contrast, employee orientation provides a convenient excuse for managers to delay or refrain from shedding slack SG&A resources. In sum, it is important to differentiate among corporate stakeholder orientations when evaluating the implications for operating efficiency.

This paper is organized as follows. In section 2, we develop our hypotheses. Section 3 describes the sample selection procedure and variable measurement. In section

[4] One caveat is in order. Our findings do not necessarily imply that employee orientation is bad overall. Prior studies suggest that employee orientation can create strong employee commitment to the company and reduce absenteeism and voluntary turnover (Whitener 2001). Nevertheless, our results are consistent with prior research suggesting that a firm's explicit or implicit commitment to its employees can inhibit "change long beyond the optimal time" (Jensen 1993, 849).

4, we provide the empirical results. In section 5, we provide additional analyses, and we conclude in section 6.

2. Hypotheses development

A stakeholder is "any group or individual who can affect or is affected by the achievement of the organization's objectives" (Freeman 1984, 46). Organizations often take measures to manage stakeholder relations (Pfeffer 1987). Stakeholder orientation refers to managers' attitudes and actions toward stakeholders and demonstrates the firm's concern for individuals and groups (Berman et al. 1999; Stavrou et al. 2007). Prior research suggests that effective stakeholder management can improve financial performance and develop valuable intangible assets such as customer and employee loyalty (Jones 1995; Hillman and Keim 2001). However, some researchers warn that firms use "social responsibilities" toward corporate stakeholders as an excuse for opportunism where self-interested executives and directors expand their own power in ways that leave them unaccountable for the stewardship of the firm's resources (Friedman 1970; Jensen and Meckling 1976).

Accounting researchers have become increasingly interested in stakeholder relations and related accounting issues (Moser and Martin 2012). Prior research finds that voluntary disclosure of corporate social responsibility (CSR) activities reduces a firm's cost of equity capital and analyst forecast errors (Dhaliwal et al. 2011; Dhaliwal et al. 2012). Archival accounting research has primarily focused on CSR activities in relation to external reporting and disclosure (Dhaliwal et al. 2011, 2012; Kim et al. 2012) and has paid little attention to the impact of stakeholder relations on cost management. We broaden stakeholder orientation research in accounting by focusing on the effect of

stakeholder relations on cost management, which is critical to both short-term profitability and long-term success. Our hypotheses examine how corporate orientation toward different stakeholders exerts differing effects on a firm's cost structure and sensitivity to external events. We first define cost stickiness, and then discuss how it may vary with stakeholder orientation.

Cost stickiness

Anderson et al. (2003) find that SG&A costs are sticky; that is, they increase more rapidly when demand increases than they decline when demand decreases. Cost stickiness studies have proposed adjustment cost and agency explanations. Anderson et al. (2003) suggest that the decision to cut or keep slack SG&A resource capacity when sales decline depends on the manager's expectations about the adjustment costs associated with cutting SG&A resources in the short term and replacing such resources when demand is restored in the future. They argue that there are "asymmetric frictions in making resource adjustments—forces acting to restrain or slow the downward adjustment process more than the upward adjustment process." Managers will be more inclined to keep slack resources if adjustment costs are sufficiently high. Hence, greater adjustment costs lead to greater cost stickiness (Banker et al. 2013).

Agency incentives provide an additional explanation for cost stickiness. Agency incentives arise from the separation of ownership and control, which allows managers to pursue their own interests instead of shareholders' (Fama and Jensen 1983). Anderson et al. (2003) conjecture that the agency incentives to avoid loss of status due to downsizing may contribute to the occurrence of cost stickiness. Motivated by self-interest to build their own "empire" or a preference for a quiet life (Bertrand and Mullainathan 2003),

managers are often reluctant to downsize subsequent to a decrease in market demand (Datta et al. 2010). By delaying or refraining from downsizing, managers can continue to consume slack SG&A resources. Chen et al. (2012) document that managers' empire building incentives are positively associated with SG&A cost stickiness. Accordingly, agency theory predicts that agency costs increase cost stickiness.

In summary, existing research has examined both adjustment costs and agency incentives for the cross-sectional variation in SG&A cost stickiness. Building on both adjustment cost theory and agency theory, we examine whether stakeholder orientation affects SG&A cost stickiness. We develop hypotheses on the effects of two primary corporate stakeholders: customers and employees.

Customer orientation

Customers are generally recognized as an important stakeholder group (Mitchell et al. 1997; Agle et al. 1999). For example, Agle et al. (1999) survey CEOs of 80 large U.S. firms and find that CEOs consider customers, together with employees, as among the privileged stakeholder class, with government and communities rated of less importance. Customer orientation captures a firm's relative emphasis on meeting market or customer demand (Kohli and Jaworski 1990). To reach a targeted level of customer experience, firms incur a wide range of SG&A costs, including advertising, R&D, sales warranty, and customer service costs.

Customer orientation can increase SG&A cost stickiness for two reasons. First, customer-oriented firms place greater emphasis on customer satisfaction (Kohli and Jaworski 1990), which requires skilled and well-trained customer service employees. These firms tend to incur greater screening and training costs per new hire and offer more

generous severance packages. When they cut SG&A resources at times of weak demand, they may incur greater out-of-pocket firing costs and greater implicit adjustment costs due to loss of employee morale, reduced customer service quality, compromised brand image, and lost sales. Furthermore, customer-oriented firms will likely incur greater future adjustment costs arising from resource expansion when demand returns in subsequent periods.[5] Companies with strong customer orientation are thus posited to have greater SG&A resource adjustment costs, which leads to greater cost stickiness.

Second, customer orientation can also contribute to greater SG&A cost stickiness due to agency considerations. Customer orientation necessitates commitment of corporate resources to customers (Kohli and Jaworski 1990). SG&A costs include slack resources (Bourgeois 1981), which often benefit managers at the expense of owners (Davis and Stout 1992). Customer-oriented companies require a greater amount of SG&A expenses committed to customers, such as travel and entertainment (Vávra and Pecinová 2008), which are likely subject to greater managerial discretion and agency conflicts (Phillips 1982; Cai et al. 2011). Managers of customer-oriented firms can more conveniently use customer focus as an excuse to camouflage their pursuit of their own self-interest. Therefore, customer-oriented firms likely delay or refrain from cutting slack SG&A resources when sales decline. In summary, both adjustment cost theory and agency theory predict that customer orientation will increase SG&A cost stickiness.

HYPOTHESIS 1. *The degree of customer orientation is positively associated with cost stickiness.*

[5] In addition, SG&A expenses such as R&D and advertising expenses can be considered investments to create future value. To the extent these expenses create more value (per dollar) in customer-oriented firms, the companies will be more reluctant to cut these expenses when sales decrease (even if the associated out-of-pocket adjustment costs are zero), resulting in greater cost stickiness.

Employee orientation

Employees provide an important input into the production process (Mitchell et al. 1997; Agle et al. 1999). Employee-oriented firms place greater emphasis on their employees' well-being, treat their employees fairly, and involve them in management decision making. These firms are likely to maintain strong health, safety, and retirement programs as well.

Employee orientation can increase SG&A cost stickiness for two reasons. First, firms with strong employee orientation incur a greater amount of per capita employee-related SG&A costs for professional development and socialization events that develop and maintain employee relations (Barnett and Salomon 2012). When employee-oriented firms cut employee-related SG&A resources during a sales decline, they likely experience greater out-of-pocket adjustment costs like severance payments and implicit costs due to loss of employee morale, increased turnover, and reduced effort (Luthans and Sommer 1999; Trevor and Nyberg 2008; Datta et al. 2010). Since employee-oriented firms tend to invest more in screening and training per employee, they also incur greater future hiring costs to restore workforce to prior levels when demand returns. Given greater adjustment costs, employee-oriented companies are less likely to respond to sales declines by aggressively cutting employee-related SG&A costs.

Second, employee-oriented companies may have a greater level of SG&A cost stickiness due to agency problems. As employee-oriented companies invest more in strengthening employee relations, agency problems are likely to be more severe. Managers can form strong alliances with employees through favorable labor policies, such as long-term labor contracts and employee ownership plans, and deter market

takeover threats (Hellwig 2000; Pagano and Volpin 2005). Atanassov and Kim (2009) suggest that workers likely support underperforming incumbent managers out of fears that new management may cut jobs, compensation, and benefits. Because labor-friendly programs can entrench managers, empire building incentives or a preference for a quiet life result in a lower likelihood of termination of employees or the elimination of business segments even when market demand is weak (Jensen 2002; Bertrand and Mullainathan 2003). Furthermore, employee orientation provides managers a convenient excuse to cover their agency incentives, which leads to greater SG&A cost stickiness. Combined, both adjustment costs and agency costs predict that firms with a strong employee orientation will have elevated SG&A cost stickiness.

HYPOTHESIS 2. *The degree of employee orientation is positively associated with cost stickiness.*

Stakeholder orientation: adjustment costs or agency costs?

Though both adjustment cost theory and agency theory predict that customer and employee orientation increase SG&A cost stickiness, they offer different implications for stakeholder management practices. Some researchers argue that stakeholder orientation enhances firm value (Jones 1995; Hillman and Keim 2001), while others caution that stakeholder management can be used as an excuse by managers to expropriate corporate resources (Friedman 1970; Jensen 2002). We therefore assess the relative influence of adjustment costs and agency costs under several settings.

Future value creation of SG&A costs

The ability of SG&A costs to create long-term future value can be instrumental in determining whether the association between stakeholder orientation and SG&A cost stickiness is explained by adjustment cost theory or agency theory. The ability of SG&A

costs to create long-term value varies across firms and industries (Banker et al. 2011). Chen et al. (2012) show that SG&A costs are sticky when they create high long-term value but not when they create low long-term value. This finding suggests that cutting SG&A resources that create high future value entails greater adjustment costs (e.g., lost future sales). If a firm has SG&A costs with high value creation potential and a strong customer or employee orientation, then the related SG&A costs likely play a central role in the firm's strategy. Conversely, if SG&A costs create low future value, or the firm has a weak stakeholder orientation, then the related SG&A costs likely play a secondary role. SG&A resources committed to core corporate activities tend to have greater adjustment costs than those to secondary activities (Balakrishnan and Gruca 2008). Thus, if adjustment costs are responsible for the association between stakeholder orientation and SG&A cost stickiness, then this association will be stronger when SG&A costs create high future value.

The association between stakeholder orientation and SG&A cost stickiness can also be attributed to agency incentives. If SG&A costs create low future value, managers do not have a legitimate reason to retain slack SG&A resources during a sales decline. Motivated by empire building incentives or a preference for quiet life, however, managers prefer to retain and consume slack SG&A resources, whether or not these resource levels are justified economically. That is, agency problems are likely aggravated when SG&A costs create low future value. Supporting this conjecture, Chen et al. (2012) show that agency factors have a greater impact on SG&A cost stickiness when SG&A costs create low future value. Stakeholder orientation provides managers with a convenient excuse to delay or refrain from cutting slack SG&A resources. Therefore, if

agency problems are responsible for the association between stakeholder orientation and SG&A cost stickiness, then this association will be more prominent when SG&A resources create low future value.

HYPOTHESIS 3: *Under adjustment cost (agency) theory, the association between customer or employee orientation and SG&A cost stickiness will be stronger when SG&A costs create high (low) future value.*

Growth opportunity

The ability of adjustment costs and agency costs to predict the relation between stakeholder orientation and SG&A cost stickiness likely also depends on a firm's growth potential. Compared to mature firms, growth firms have more positive net present value (NPV) investment opportunities. If a growth firm has a strong customer or employee orientation, then the related SG&A resources likely generate strategic initiatives with significant future benefits; hence, cutting SG&A resources at times of weak demand may lead to the loss of strategic position and entail higher adjustment costs. Conversely, for a mature firm or a firm with a low customer or employee orientation, the related SG&A resource capacity likely contributes less to future value or is of lesser importance; thus, reducing SG&A resources during a sales decline will result in lower adjustment costs. In summary, if adjustment costs explain the effect of stakeholder orientation on SG&A cost stickiness, this effect is likely to be stronger in growth firms.

Mature firms have fewer positive NPV investment opportunities and are more likely to invest in negative NPV projects such that managers can continue to consume perquisites at the expense of shareholders (Jensen 1986). Chen et al. (2012) find that SG&A cost stickiness is more pronounced in mature firms than in growth firms, suggesting that agency problems are more severe in mature firms. Stakeholder orientation

can entrench managers and offer them a convenient excuse to retain and consume slack SG&A resources even when sales decline, leading to increased SG&A cost stickiness in mature firms. If agency factors explain the association between SG&A cost stickiness and stakeholder orientation, we expect this association to be stronger in mature firms.

> HYPOTHESIS 4. *Under adjustment cost (agency) theory, the association between customer or employee orientation and SG&A cost stickiness will be stronger for growth (mature) firms.*

Corporate governance

The association between stakeholder orientation and SG&A cost stickiness is likely contingent upon the monitoring strength of corporate governance.[6] The effect of adjustment costs on SG&A cost stickiness is likely to be sensitive to different strengths of corporate governance. Under strong corporate governance, managers' interests are better aligned with those of shareholders, and thus managers focus more on economic factors (e.g., adjustment costs) as opposed to agency considerations when they make SG&A resource capacity adjustment decisions. If adjustment costs account for the effect of stakeholder orientation on SG&A cost stickiness, then this effect is likely stronger when corporate governance is strong than when it is weak.

When corporate governance monitoring is weak, managers are more likely to act in their own best interest at the expense of shareholders' interest. In a firm with weaker governance, managers likely find it more convenient to use customer or employee commitment to delay or reject cutting SG&A resources at times of weak demand, which increases SG&A cost stickiness. On the other hand, when corporate governance is strong, managers have greater difficulty in justifying a delay of eliminating slack SG&A costs

[6] The primary function of corporate governance is to monitor management on behalf of shareholders to reduce agency problems (Jensen 1993; Datta et al. 2010).

during a sales decline, reducing SG&A cost stickiness. For example, Chen et al. (2012) shows that strong governance mitigates the effect of agency incentives on SG&A cost stickiness. Combined, if agency costs explain the association between stakeholder orientation and SG&A cost stickiness, this association will likely to be stronger when corporate governance is weak.

HYPOTHESIS 5. *Under adjustment cost (agency) theory, the association between customer or employee orientation and SG&A cost stickiness will be stronger for firms with strong (weak) corporate governance.*

3. Sample and variable measurement

As with prior research, we obtain the stakeholder orientation variables from the Morgan Stanley Capital International (MSCI) KLD Stats database (Berman et al. 1999; Coombs and Gilley 2005; Kim et al. 2012).[7] MSCI ESG Research, Inc., provides ratings for both positive and negative indicators of stakeholder management dimensions like community, employee relations, product, diversity, and the natural environment.[8] For example, product strengths include indicators of customer access to finance and communications, whereas product concerns involve indicators of product safety and anticompetitive practices.[9] For employee relations, maintaining an employee stock ownership plan (ESOP) or employee stock purchase plan (ESPP) is a strength, whereas

[7] MSCI KLD Stats database comprises social ratings originally developed by Kinder, Lydenberg, Domini & Analytics, Inc. This database initially covers approximately 650 firms from the MSCI USA index and Domini 400 Social Index. Since 2003, the KLD database has also incorporated the MSCI USA Investable Market Index companies, which increases the coverage of U.S. firms to approximately 2,400.

[8] The indicators are scored under a binary scoring model. If a firm meets the assessment criteria determined for an indicator, then the indicator is given a value of one. If the firm does not meet the assessment criteria, then the indicator is given a value of zero. If a firm has not been researched for the given indicator, then this signifies a "NR" (Not Researched). Importantly, negative ratings do not preclude a firm from receiving positive ratings in a particular dimension, as the strengths and concerns are scored separately.

[9] Products like tobacco, weapons, nuclear power, and genetically modified products are seen as socially undesirable by some. Accordingly, the companies providing these products/services (e.g., DuPont, Reynolds American, General Electric, and Monsanto) are likely to be rated as having a concern for the "Product Quality & Safety." As industries producing socially undesirable products/services are more likely to be rated as having a product safety concern, it is important to control for industry effects.

child labor controversies along a firm's supply chain are considered a concern. Examples of strengths and concerns for each stakeholder management dimension are presented in Appendix 1. The data used by MSCI to determine strengths and concerns are collected from several sources that include quarterly or annual reports, academic journals, articles in press, company surveys, and government reports (MSCI ESG Research 2015).

We use MSCI KLD ratings for product issues and employee relations to measure both customer and employee orientation. We also include as control variables MSCI KLD ratings for workplace diversity, communities, and natural environment to measure corporate orientation toward these stakeholders.[10] Following prior literature, we sum the strengths (positive values) and concerns (negative values) and take the difference between the total strengths and the total concerns to obtain a single, bound measure of corporate orientation toward particular stakeholders (Kim et al. 2012; Jayachandran et al. 2013).

Table 1 describes the sample selection procedure. We start with all domestic firms within COMPUSTAT from 1990 to 2013. Consistent with Kama and Weiss (2013), financial institutions and public utilities are eliminated from the sample (4-digit SIC codes 6000–6999 and 4900–4999) because they operate in regulated industries with cost structures that differ from other industries. We drop firm-years with nonpositive values for sales revenue, SG&A costs, total assets, and the number of employees. For testing our hypotheses, we also exclude observations with missing values for key cost stickiness

[10] Corporate orientation toward communities and the environment is often considered secondary in importance (Agle et al. 1999; Crilly and Sloan 2012). Strong corporate orientation toward communities and the environment may result in greater cost stickiness. However, given that these stakeholders are secondary in importance, firms with a strong orientation toward communities and the environment may be willing to cut back on their expenses related to these stakeholders during a sales decline, resulting in lower cost stickiness. Therefore, we do not form ex ante directional predictions regarding how corporate orientation toward these stakeholders affects cost stickiness.

variables such as change in SG&A costs, change in sales revenue, asset intensity, employee intensity, successive sales decrease, return on assets, and free cash flow. Similar to Kama and Weiss (2013), we also require share price at end of fiscal year to be greater than $1. We next eliminate observations with missing data on MSCI KLD variables. To limit the effect of extreme observations, we remove the top and bottom 0.5 percent of changes in sales and SG&A expenses by year. The final sample consists of 19,783 firm-year observations.

The industry distribution of sample firms (untabulated) indicates that our sample firms are from 60 2-digit SIC industries, alleviating potential concerns about industry clustering. In addition, the average ratings for both customer and employee orientation vary by industry, indicating a need to control for industry effects.

Definitions of variables are provided in Appendix 2. The variables measuring change in SG&A expenses and change in sales and control variables are defined consistently with prior cost stickiness literature. We adopt a lead-lag approach to alleviate the concern that cost stickiness may drive stakeholder orientation. Specifically, we measure stakeholder orientation variables at $t-1$ and log changes in both SG&A expenses and sales at t (Banker et al. 2011; Dhaliwal et al. 2011). This design allows us to test whether past stakeholder relations affect current cost stickiness.

4. Empirical results

Descriptive statistics

Panel A of Table 2 reports the descriptive statistics for annual sales revenue and SG&A costs for our final sample. The average (median) sales revenue is $3,540.48 ($756.26) million. SG&A has a mean (median) of $646.50 ($143.75) million and represents 29.32 percent (22.62 percent) of sales revenue. These descriptive statistics are similar to those reported in prior literature (e.g., Anderson et al. 2003; Chen et al. 2012). Panel B provides descriptive statistics for the control variables. The average (median) asset intensity (*ATINT*) is 0.07 (0.05), and the mean (median) employee intensity (*EMPINT*) is 1.29 (1.34). Approximately 24 percent of sample firms experience a decline in sales in year $t-1$. For our sample firm-years, free cash flow equals an average of 9 percent of total assets (median = 9 percent), and R&D expense constitutes 4 percent of total assets (median = 1 percent). The average (median) return on assets (*ROA*) for our sample firm-years is 4 percent (5 percent), and 2 percent of firm-years have small positive profits (*MBZ*); that is, return on assets is less than or equal to 0.5 percent. Panel C reports the descriptive statistics for the stakeholder orientation variables. The mean values for product quality/safety, employee relation, diversity, community, and environment are −0.11, −0.07, 0.04, 0.11, and 0.00, respectively, which are also comparable to results in prior studies (Agle et al. 1999; Berman et al. 1999; Coombs and Gilley 2005).

Table 2, panel D, reports comparative statistics for subsamples partitioned at median values for customer and employee orientation. A comparison between the low and high customer orientation subsamples shows that these two subsamples are significantly different for every measure other than return on assets, ROA_{t-1}, and the propensity of meeting or beating zero benchmark, MBZ_{t-1}. Similar effects are present in comparing the low and high employee orientation subsamples. These comparative statistics suggest the need to control for these differences in the empirical models for hypothesis testing.

We report Pearson correlations between our main variables in Table 3. Most of the correlations are relatively small in magnitude. For all of the models that we estimate, we also test multicollinearity for all the independent variables, including the interaction terms. We find the variance inflation factor (VIF) is lower than 10 for all the independent variables, indicating that multicollinearity is not a major concern.

Tests of Hypotheses 1 and 2

To test Hypotheses 1 and 2, we use the following empirical model adapted from cost stickiness literature:

$$\Delta lnSGA_t = \beta_0 + \beta_1 \Delta lnSALE_t + \beta_2 \times DEC_t \times \Delta lnSALE_t + (\gamma_1 CUST_{t-1} + \gamma_2 EREL_{t-1} + \gamma_3 DIV_{t-1} + \gamma_4 COM_{t-1} + \gamma_5 ENV_{t-1}) \times \Delta lnSALE_t + (\gamma_6 CUST_{t-1} + \gamma_7 EREL_{t-1} + \gamma_8 DIV_{t-1} + \gamma_9 COM_{t-1} + \gamma_{10} ENV_{t-1} + \beta_3 ATINT_t + \beta_4 EMPINT_t + \beta_5 DEC_{t-1} + \beta_6 FCF_{t-1} + \beta_7 ROA_{t-1} + \beta_8 RD_{t-1} + \beta_9 MBZ_t) \times DEC_t \times \Delta lnSALE_t + \gamma_{11} CUST_{t-1} + \gamma_{12} EREL_{t-1} + \gamma_{13} DIV_{t-1} + \gamma_{14} COM_{t-1} + \gamma_{15} ENV_{t-1} + \beta_{10} ATINT_t + \beta_{11} EMPINT_t + \beta_{12} DEC_{t-1} + \beta_{13} FCF_{t-1} + \beta_{14} ROA_{t-1} + \beta_{15} RD_{t-1} + \beta_{16} MBZ_t + Year\ Indicator + Industry\ Indicator + \varepsilon_t, \quad (1)$$

where $\Delta lnSGA_t$ is the log change of SG&A costs in year t (i.e., between year t and year $t-1$); $\Delta lnSALE_t$ is the log change of sales revenue; and DEC_t is a dummy variable that

equals one if sales revenue in year t is less than in year $t-1$ and zero otherwise. Following Anderson et al. (2003, 58), we convert financial variables to equivalent 1991 dollars to control for inflation. $ATINT_t$, $EMPINT_t$, FCF_{t-1}, ROA_{t-1}, and RD_{t-1} are mean-centered to facilitate the interpretation of the regression results. Coefficient β_1 represents the percentage change in SG&A costs for a 1 percent increase in sales, and the sum of the coefficients ($\beta_1 + \beta_2$) measures the percentage change in SG&A costs for a 1 percent decrease in sales. According to cost stickiness literature, we expect β_1 to be positive and β_2 to be negative.

Hypotheses 1 and 2 predict that strong customer and employee orientation, respectively, increase SG&A cost stickiness. To test these hypotheses, we interact stakeholder orientation variables (*CUST*, *EREL*, *DIV*, *COM*, and *ENV*) with the decrease in sales ($DEC_t \times \Delta lnSALE_t$). Based on model (1), the effect of customer orientation on sales increases is captured by γ_1, and its effect on sales decreases is captured by ($\gamma_1 + \gamma_6$). As noted, γ_1 affects both sales increases and decreases, thus only γ_6 captures the degree of SG&A cost stickiness (i.e., the difference between the slope for sales decreases and the slope for sales increases). According to Hypothesis 1, we predict $\gamma_6 < 0$. Analogously, Hypothesis 2 predicts $\gamma_7 < 0$. In addition, we control for the main effect of stakeholder orientation variables and their interactions with sales increases.[11]

We control for an array of economic variables likely influencing cost stickiness as identified in prior research. Asset intensity ($ATINT_t$) is the log ratio of total assets over

[11] Similar to prior cost stickiness literature, our main parameters of interest are based upon interactions of stakeholder orientation ($CUST_{t-1}$ and $EREL_{t-1}$) and sales decreases ($DEC_t \times \Delta lnSALE_t$). Therefore, we control for the main effects of stakeholder orientation and interactions with sales increases ($\Delta lnSALE_t$) to avoid distorted inferences about the parameters of interest. This design choice of including the interaction between stakeholder orientation and sales increases ($\Delta lnSALE_t$) is consistent with prior research (Kama and Weiss 2013; Dierynck et al. 2012).

sales, while employee intensity ($EMPINT_t$) is the log ratio of total number of employees over sales. FCF_{t-1} is the free cash flow (i.e., cash flow from operating activities minus common and preferred dividends) scaled by the total assets. We include return on assets (ROA_{t-1}) to control for performance. Research and development (RD_{t-1}) is included to control for product differentiation and is constructed as the ratio of R&D expenses over beginning assets. In addition, we include an indicator variable, MBZ_t, which equals one for firm-year observations that report a small profit and zero otherwise, to control for managerial incentives to just meet or beat zero earnings benchmark (Dierynck et al. 2012). We include these economic determinants as main terms and interact them with sales decreases, but not with sales increases.[12] Year and industry fixed effects are also included. To control for time-series dependence, we estimate all regressions using firm-clustered standard errors (Gow et al. 2010).

Table 4 tabulates regression results for Hypotheses 1 and 2. The results in the "Customer orientation" and "Employee orientation" columns include only stakeholder orientation variables related to these factors, while the "Comprehensive model" column includes all stakeholder orientation variables. The estimation results including only customer or employee orientation are similar to those from the comprehensive model; therefore, we will focus our discussion on results from the comprehensive model. As shown in the "Comprehensive model" column, the coefficient estimate of β_1 is 0.615 (t = 47.02), suggesting that SG&A costs increase by approximately 0.62 percent per 1 percent increase in sales. The coefficient estimate of β_2 is −0.218 (t = −9.41), indicating

[12] Following prior research, we do not expect economic determinants to affect sales increases and thus do not include the two-way interaction terms between economic determinants and sales increases. In addition, including two-way interaction terms can lead to multicollinearity and spurious results (Dierynck et al. 2012). Nevertheless, we also estimate model (1) by including these two-way interaction terms and find inferentially identical results (untabulated) to those reported in Table 5.

that SG&A costs decrease roughly 0.22 percent less with 1 percent decrease in sales than they increase for an equivalent increase in sales. The combined value of ($\beta_1 + \beta_2$), which measures the change in SG&A costs per 1 percent decrease in sales revenue, is 0.397. Together, these results are consistent with prior literature suggesting that SG&A costs are sticky.

Based upon Hypotheses 1 and 2, customer- and employee-oriented firms will have greater SG&A cost stickiness (i.e., $\gamma_6 < 0$ and $\gamma_7 < 0$). As shown, the coefficient estimates of both γ_6 (−0.079, t = −2.21) and γ_7 (−0.049; t = −2.43) are significantly negative, supporting both hypotheses.[13] When the MSCI KLD index for customer orientation changes from zero to one,[14] SG&A cost stickiness increases by 36.24 percent (γ_6 / β_2 = −0.079 / −0.218). The same amount of change in the employee orientation index increases SG&A cost stickiness by 22.48 percent (γ_7 / β_2 = −0.049 / −0.218).

The coefficient estimates for the control variables are broadly consistent with prior research. The coefficient estimate of β_3 ($ATINT_t \times DEC_t \times \Delta lnSALE_t$) is significantly negative (−0.128, t = −6.66), indicating greater cost stickiness in firms with greater asset intensity. The coefficient estimate of β_4 ($EMPINT_t \times DEC_t \times \Delta lnSALE_t$) is significantly positive (0.063, t = 4.10), which is similar to Chen et al. (2012). The significantly positive coefficient estimate for β_5 (0.075, t = 2.91) indicates lower cost stickiness for firms experiencing two consecutive sales decreases. In addition, prior-period performance

[13] Our inferences are robust to controlling for industry-level wages as a proxy for differences in industry skill requirements.

[14] Each stakeholder orientation variable is measured by the total strengths minus total concerns. For each stakeholder management area, MSCI KLD Stats provides total strengths and total concerns by summing up binary values of multiple attributes (see Appendix 1). The smallest possible change in rating is thus one.

(ROA_{t-1}) reduces stickiness ($\beta_7 = 0.148$, $t = 1.74$), while prior-period R&D intensity (RD_{t-1}) increases stickiness ($\beta_8 = -0.503$, $t = -2.53$). The coefficient estimates of FCF_{t-1} (β_6) and MBZ_t (β_9) are both insignificant. The coefficient estimates of γ_8 ($DIV_{t-1} \times DEC_t \times \Delta lnSALE_t$), γ_9 ($COM_{t-1} \times DEC_t \times \Delta lnSALE_t$), and γ_{10} ($ENV_{t-1} \times DEC_t \times \Delta lnSALE_t$) are not significant, suggesting that corporate orientation toward these stakeholders does not have an incremental effect on SG&A cost stickiness.[15]

Tests of Hypotheses 3, 4, and 5

Hypotheses 3 through 5 apply to different settings that help assess the separate effects of adjustment costs and agency costs. We compare the stakeholder orientation effect on SG&A cost stickiness between subsamples partitioned by (i) future value created by SG&A costs, (ii) growth potential, and (iii) corporate governance strength as measured by institutional ownership, board size, and board independence. For the partitioned samples, we focus our comparison on the coefficients of the interaction terms for customer (γ_6) or employee orientation (γ_7) and sales decrease ($DEC_t \times \Delta lnSALE_t$). As shown in panel E of Table 2, the number of observations varies by partitioning variable due to differences in data availability.

Subsamples partitioned by future value created by SG&A expenses

To test Hypothesis 3, we partition our sample into low and high value creation subsamples based on the industry-specific future value creation potential of SG&A costs

[15] It is likely that firm size may be associated with both stakeholder orientation and SG&A cost stickiness. To control for the size effect, we conduct supplementary analyses by including additional controls such as *SIZE*, *SIZE*×Δ*lnSALE*, and *SIZE*×*DEC*×Δ*lnSALE*, where *SIZE* is measured by the logarithm of total assets at beginning of a year. Our results (untabulated) are inferentially similar.

as provided in Table 2 of Banker et al. (2011). Columns 1 and 2 in Table 5 provide the regression results. Customer orientation increases the degree of SG&A cost stickiness in the high value creation subsample ($\gamma_6 = -0.149$, $t = -2.12$) but not in the low value creation subsample ($\gamma_6 = -0.053$, $t = -0.87$). This suggests that customer-oriented firms refrain from cutting SG&A costs when these costs create high long-term value. The result for customer-oriented companies is consistent with the adjustment cost explanation in Hypothesis 3. In contrast, employee orientation is associated with increased SG&A cost stickiness in the low value creation subsample ($\gamma_7 = -0.054$, $t = -1.74$) but not in the high value creation subsample (-0.024, $t = -0.84$). This indicates that employee-oriented firms delay or refrain from cutting SG&A resources during a sales decline when these SG&A costs create low future value. This result for employee-oriented companies is consistent with the agency cost explanation in Hypothesis 3.

Subsamples partitioned by growth opportunity

To test Hypothesis 4, we form subsamples of growth and mature firms based upon cross-sectional variations in yearly growth potential, as proxied by the book-to-market (*BTM*) ratio (Larcker et al. 2007). Growth (mature) firms typically have low (high) BTM ratios (Fama and French 1995). Columns 3 and 4 of Table 5 provide the results for growth firms and mature firms, respectively. Customer-oriented firms have greater SG&A cost stickiness when their growth potential is high ($\gamma_6 = -0.111$, $t = -1.99$), but not when their growth potential is low ($\gamma_6 = -0.047$, $t = -0.85$). This suggests that customer-oriented firms are reluctant to cut SG&A costs during a sales decline when they have high growth potential but not when they have low growth potential. This result is

consistent with the adjustment cost prediction in Hypothesis 4. In contrast, employee orientation increases SG&A cost stickiness in mature firms ($\gamma_7 = -0.057$, $t = -2.32$) but not in growth firms ($\gamma_7 = -0.044$, $t = -1.38$). This indicates that employee-oriented companies retain and consume slack SG&A resources at times of weak demand despite their low growth potential and thus supports the agency cost prediction in Hypothesis 4. Similar to the Hypothesis 3 results, the Hypothesis 4 results support the adjustment cost explanation for customer-oriented firms and the agency cost explanation for employee-oriented firms.

It is possible that a partition by SG&A expenses future value creation is correlated with a partition by growth potential. If so, the tests of Hypotheses 3 and 4 may capture similar effects. To address this concern, we compare the subsamples used in testing Hypotheses 3 and 4. The untabulated analyses suggest that SG&A expenses future value creation (*SGA_FV*) is orthogonal to growth opportunity (*BTM*), as low value creation and high value creation firms are approximately evenly distributed across growth firms and mature firms subsamples. Therefore, the subsamples used in testing Hypothesis 3 and 4 are substantially different and do not reflect the same phenomenon.[16]

[16] As an additional robustness test, we partition our full sample into four subsamples based upon SG&A future value creation (low versus high) and growth opportunity (low versus high), and then estimate model 1 for each subsample. When making resource adjustments, firms with low SG&A future value creation and low growth are more likely influenced by agency considerations, whereas firms with high SG&A future value creation and high growth are more likely affected by adjustment cost considerations. Untabulated results show that employee orientation contributes to cost stickiness (−0.084, t = −2.24) for the subsample of low SG&A future value and low growth (n = 3,862), but it is not an influential factor in the other three subsamples. In contrast, cost stickiness increases only with customer orientation (−0.200, t = −2.27) for the subsample of high SG&A future value and high growth (n = 3,963), but not for the other three subsamples. These results are consistent with our results for Hypothesis 3 and 4 and provide additional support to the findings that SG&A cost stickiness related to customer orientation (employee orientation) largely reflects adjustment cost considerations (agency considerations).

Subsamples partitioned by corporate governance variables

Prior corporate governance literature suggests that monitoring strength increases with institutional ownership and board independence and decreases with board size. Institutional investors have significant ownership stakes and voting power vested in companies and are motivated to monitor and mitigate managers' opportunistic actions (Shleifer and Vishny 1986; Datta et al. 2010).[17] Independent directors exercise more effective monitoring of management and mitigate agency problems (Hermalin and Weisbach 1998). Large boards are associated with reduced oversight effectiveness, because it is easier for the CEO to gain control of large boards due to slower decision making and an overall lower level of questioning of the CEO (Jensen 1993).[18]

To test Hypothesis 5, we investigate whether the association between SG&A cost stickiness and stakeholder orientation is moderated by institutional ownership, board size, and board independence. We partition our sample into subsamples by the yearly median values of these corporate governance variables and estimate model (1) for each subsample. Table 6 provides partitioned sample regression results.

Columns 1 and 2 show that customer orientation increases SG&A cost stickiness when institutional ownership is high ($\gamma_6 = -0.143$, $t = -2.40$) but not when it is low ($\gamma_6 = 0.021$, $t = 0.42$). This suggests that customer-oriented firms avoid cutting SG&A costs when institutional ownership is high. Since high institutional ownership better

[17] Prior research supports the oversight role of institutional shareholders and documents that institutional ownership is positively associated with the performance sensitivity of managerial compensation (Hartzell and Starks 2003), reduced managerial incentives to cut R&D following a decline in earnings (Bushee 1998), and the termination of poorly performing CEOs (Aggarwal et al. 2011).
[18] Consistent with this conjecture, prior research has documented a negative relation between board size and firm value (Yermack 1996; Eisenberg et al. 1998).

protects shareholder interests against agency risks, the effect of customer orientation on cost stickiness is consistent with the adjustment cost explanation in Hypothesis 5. In contrast, employee orientation increases cost stickiness when institutional ownership is low ($\gamma_7 = -0.077$, $t = -2.69$) but not when it is high ($\gamma_7 = -0.036$, $t = -1.09$). This suggests that employee-oriented firms retain slack SG&A costs at times of weak demand when institutional ownership is low. As agency problems tend to be more severe when institutional ownership is low, the SG&A cost stickiness associated with employee orientation is consistent with the agency cost prediction in Hypothesis 5.

Columns 3 and 4 show that customer orientation increases SG&A cost stickiness for firms with small boards ($\gamma_6 = -0.193$, $t = -2.50$) but not for firms with large boards ($\gamma_6 = -0.055$, $t = -1.22$). To the extent that board monitoring effectiveness decreases with board size, this finding for customer orientation is consistent with the adjustment cost explanation. In contrast, employee orientation increases SG&A cost stickiness for firms with large boards ($\gamma_7 = -0.096$, $t = -3.29$) but not for firms with small boards ($\gamma_7 = -0.011$, $t = -0.24$), supporting the agency cost explanation for employee orientation.

Columns 5 and 6 show that customer-oriented companies have greater SG&A cost stickiness when board independence is high ($\gamma_6 = -0.133$, $t = -2.70$) but not when it is low ($\gamma_6 = -0.054$, $t = -0.76$). Since board independence increases monitoring strength, this result for customer orientation supports the adjustment cost explanation. In contrast, employee-oriented companies have greater SG&A cost stickiness for firms with less independent boards ($\gamma_7 = -0.104$, $t = -2.64$) but not for those with more independent boards ($\gamma_7 = -0.039$, $t = -1.04$). For employee orientation, the finding is consistent with the agency cost prediction outlined in Hypothesis 5 as opposed to the adjustment cost

prediction.

The above analyses based upon corporate governance strength are consistent across the three distinct and heavily studied governance features (Datta et al. 2010).[19] These findings are also consistent with the results for Hypotheses 3 and 4. Combined, our findings support the adjustment cost explanation for customer orientation and the agency cost explanation for employee orientation.

Additional tests

In this section, we report supplementary analyses by examining three alternative dependent variables: R&D expense, advertising expense, and the number of employees. R&D and advertising expenses represent major components of SG&A costs and can be considered value-enhancing investments (Chen et al. 2012).[20] To test whether R&D and advertising expenses are sticky and associated with stakeholder orientation, we construct separate testing samples for R&D and advertising expenses, and substitute these expenses for SG&A expenses in model (1). The untabulated analysis of R&D cost shows that R&D expense is sticky ($\beta_2 = -0.167$, $t = -3.37$) and increases with both customer orientation ($\gamma_6 = -0.107$, $t = -1.71$) and employee orientation ($\gamma_7 = -0.078$, $t = -1.85$). In comparison, the untabulated analysis of advertising expense reveals no cost stickiness ($\beta_2 = -0.133$,

[19] Correlation analyses (untabulated) reveal that firm size as measured by log of sales is highly correlated with institutional ownership (0.082, $p = 0.000$), board size (0.594, $p = 0.000$), and board independence (0.107, $p = 0.000$). Thus, these corporate governance features might be affected by firm size. To isolate the size effect, we regress each of the three governance variables on firm size (i.e., log of sales) after controlling for industry and year fixed effects. We obtain the residuals from these regressions and use the residuals as partitioning variables to conduct partitioned sample analyses. Untabulated results are inferentially similar to those reported in Table 6.

[20] R&D and advertising expenses do not have well defined "resource requirements" as a function of concurrent sales. That is, an increase in sales does not necessitate a proportionate increase in R&D and advertising expenses, nor does a sales decline automatically release a proportionate share of these resources. Hence, these expenses may behave differently than other SG&A costs (e.g., shipping cost and commissions).

$t = -1.24$).[21] Further, the cost stickiness of advertising expense is not related to either customer orientation ($\gamma_6 = -0.126$, $t = -1.01$) or employee orientation ($\gamma_7 = 0.159$, $t = 1.53$).[22]

We next test whether the change in number of employees is associated with employee orientation. Prior research has used the number of employees as an alternative measure for labor costs (Dierynck et al. 2012; Banker et al. 2014). Accordingly, we use the log change of the number of employees as an alternative dependent variable to replace the log change of SG&A ($\Delta lnSGA_t$) in model (1). Untabulated regression analysis shows that labor cost is sticky ($\beta_2 = -0.091$; $t = -2.59$). Further, we find that labor cost stickiness increases with employee orientation ($\gamma_7 = -0.051$, $t = -1.80$), but none of the other stakeholder orientations. This finding suggests that employee-oriented firms are more likely to shield their employees from the adverse impact of a decline in market demand.

5. Conclusion

The business community is paying greater attention to stakeholders (Hillman et al. 2009; Wang 2013). However, the implications of stakeholder orientation for internal management practices remain largely unexplored. Building upon both adjustment cost theory and agency theory, we predict that SG&A cost stickiness increases with customer and employee orientation. Using a sample of 19,783 firm-years between 1991 and 2013,

[21] The presence of cost stickiness of R&D expense and the absence of cost stickiness for advertising expense are likely not only due to their different sample sizes but also due to their different properties and characteristics. R&D expenses are characterized by a greater proportion of committed fixed costs including research facilities, equipment, and salaried scientists or engineers. In contrast, advertising includes a greater proportion of discretionary expenses. It is easier and quicker to make adjustments to advertising expense than to R&D expense, and the adjustment costs are smaller for altering advertising costs than R&D (Cohen et al. 2010). Thus, it is conceivable that R&D (advertising) expense is (not) sticky.

[22] We remove RD_{t-1} and its interaction term with sales decrease ($DEC_t \times \Delta lnSALE_t$) from the regression model with ΔRD_t as the dependent variable to avoid a mechanical relationship.

we find results consistent with these predictions. Furthermore, SG&A cost stickiness increases with customer orientation for firms where SG&A costs create greater future value, firms with high growth potential, and firms with strong corporate governance. Conversely, SG&A cost stickiness increases with employee orientation for firms where SG&A costs create low future value, firms with low growth potential, and firms with weak corporate governance. In sum, adjustment cost theory better explains the effect of customer orientation on SG&A cost stickiness, whereas agency theory helps to explain the association between employee orientation and SG&A cost stickiness.

We provide initial evidence that stakeholder orientation affects SG&A capacity adjustment decisions and SG&A cost stickiness. We base our predictions on adjustment cost theory and agency theory, which also helps to differentiate between efficient and excessive SG&A cost stickiness (Banker and Byzalov 2014). Our findings add to the ongoing discussions among managers and academics by showing the diverging implications of stakeholder orientation for capacity management. By examining customer and employee orientation separately, we provide some evidence that managerial commitment to customers is more consistent with corporate efficiency considerations (i.e., adjustment costs), whereas corporate orientation toward employees helps to rationalize managers' agency incentives to delay or refrain from cutting idle resources.

Our findings suggest potential avenues for future research. First, our sample comprises only U.S. firms. Companies from other countries or regions prioritize stakeholder groups differently. For example, Denmark and Sweden have a much stronger union presence that likely places a higher priority on employees. On the one hand, if the strong emphasis on employees provides managers a legitimate cover for building empires,

then firms in these countries may have more severe agency problems. On the other hand, if strong employee orientation is an integral part of business strategy or culture (i.e., managers consider employee orientation as a driver of performance and long-term growth), then these firms might not exhibit the agency problems as revealed using U.S. data. Therefore, a useful extension to our study is to examine how our findings generalize to different institutional environments. Second, our results indicate that corporate orientation toward communities and the environment does not affect an average firm's resource adjustments. Nevertheless, we cannot rule out the possibility that corporate orientation toward these stakeholders may have a significant impact in certain firms or industries. For instance, oil and gas firms are subject to more environmental regulations; thus, their resource adjustment decisions will likely be more sensitive to corporate orientation toward the environment. Future research could identify specific settings where corporate orientation toward the environment and communities likely influences resource management.

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Appendix 1
Stakeholder relations measures

Areas of stakeholder relations	Strengths	Concerns
Customer (Product)	Quality	Product Quality & Safety
	Social Opportunities	Marketing & Advertising
	Access to Finance	Anticompetitive Practices
	Access to Communications	Customer Relations
	Product Safety	Other Concerns
Employee Relations	Union Relations	Union Relations
	Cash Profit Sharing	Employee Health & Safety
	Employee Involvement	Supply Chain Controversies
	Employee Health & Safety	Child Labor
	Supply Chain Labor Standards	Labor-Management Relations
	Human Capital	
Diversity	Representation	Representation
	Board of Directors – Gender	Board of Directors – Gender
	Women & Minority Contracting	Board of Directors – Minorities
	Employment of Underrepresented Groups	Other Concern
Community	Generous Giving	Investment Controversies
	Innovative Giving	Tax Disputes
	Support for Housing	Other Concern
	Support for Education	
	Non-US Charitable Giving	
Environment	Environmental Opportunities	Regulatory Compliance
	Waste Management	Toxic Spills & Releases
	Packaging Materials & Waste	Climate Change
	Climate Change	Impact of Products & Services
	Environmental Management Systems	Biodiversity & Land Use
	Water Stress	Operational Waste
	Biodiversity & Land Use	Supply Chain Management
	Raw Material Sourcing	Water Management

Appendix 2
Definition of variables with COMPUSTAT data mnemonics in parentheses

Variable	Definition
SGA_t	Annual selling, general, and administration expenses (XSGA) in year *t*
$\Delta lnSGA_t$	Log of the ratio of SGA_t to SGA_{t-1}
$SALE_t$	Annual sales revenue (SALE) in year *t*
$\Delta lnSALE_t$	Log of the ratio of $SALE_t$ to $SALE_{t-1}$
$ATINT_t$	Asset intensity: log of the ratio of total assets (AT) to sales revenue (SALE)
$EMPINT_t$	Employee intensity: log of the ratio of the number of employees (EMP) to sales revenue (SALE)
DEC_t	Dummy variable that equals one if $SALE_t < SALE_{t-1}$, and zero otherwise
FCF_t	Cash flow from operating activities (OANCF) minus common (DVC) and preferred dividends (DVP) scaled by the total assets (AT)
ROA_t	Income before extraordinary items (IB) divided by AT_{t-1}
RD_t	Research and development expenses (XRD) scaled by AT_{t-1}. RD_t is set to zero if missing
MBZ_t	Dummy variable that equals one if ROA_t is between 0 and 0.5 percent
$CUST_t$	Net of KLD Product rating, measured as total strengths minus total concerns
$EREL_t$	Net of KLD Employee Relations rating, measured as total strengths minus total concerns
DIV_t	Net of KLD Diversity rating, measured as total strengths minus total concerns
COM_t	Net of KLD Community rating, measured as total strengths minus total concerns
ENV_t	Net of KLD Environment rating, measured as total strengths minus total concerns
SGA_FV	Industry-specific future value creation of SGA, obtained from Table 2 of Banker et al. (2011)
BTM	Ratio of book value of equity (CEQ) to market value of equity (PRCC × CSHO)
INST	Cumulative number of shares held by institutional investors (SHARES) divided by the total shares outstanding (SHROUT), obtained from Thomson Reuters
INDEP	Percentage of independent (outside) directors on the board, obtained from Risk Metrics
BOARD_SIZE	Total number of members on the board of directors, obtained from Risk Metrics

TABLE 1
Sample selection

Sample	Observations deleted	Observations remaining
Unique observations with valid data on COMPUSTAT over fiscal years 1990 to 2013		273,211
Excluding financial institutions and public utilities	80,481	192,730
Excluding firm-years with nonpositive values for sales revenue, SG&A costs, total assets, and the number of employees	15,079	177,651
Excluding firm-years with missing values for key cost stickiness variables, such as change in SG&A costs, change in sales revenue, asset intensity, employee intensity, successive sales decrease, return on assets, and free cash flow	73,597	104,054
Excluding firm-years with share price below $1	13,398	90,656
Excluding firm-years with missing data on KLD variables	70,565	20,091
Excluding firm-years with extreme values for the change of SG&A costs and the change of sales revenue (i.e., in the top and bottom 0.5 percent of the distribution) by year	308	19,783

TABLE 2
Descriptive statistics

Variable	Mean	Median	Standard deviation	25%	75%
Panel A: Sales revenue and SG&A costs					
$SALE_t$ ($mil)	3,540.48	756.26	11,707.41	260.46	2,421.52
SGA_t ($mil)	646.50	143.75	2,020.57	55.77	449.60
$\Delta lnSALE$	5.59%	4.96%	18.60%	-2.46%	13.71%
$\Delta lnSGA$	5.40%	4.59%	15.19%	-2.38%	12.50%
Panel B: Control variables					
$ATINT_t$	0.07	0.05	0.65	-0.35	0.47
$EMPINT_t$	1.29	1.34	0.85	0.87	1.77
DEC_{t-1}	0.24	0.00	0.43	0.00	0.00
FCF_{t-1}	0.09	0.09	0.11	0.05	0.14
ROA_{t-1}	0.04	0.05	0.14	0.02	0.09
RD_{t-1}	0.04	0.01	0.07	0.00	0.05
MBZ_t	0.02	0.00	0.13	0.00	0.00
Panel C: Stakeholder orientation variables					
$CUST_{t-1}$	-0.11	0.00	0.59	0.00	0.00
$EREL_{t-1}$	-0.07	0.00	0.94	-1.00	0.00
DIV_{t-1}	0.04	0.00	1.33	-1.00	1.00
COM_{t-1}	0.11	0.00	0.52	0.00	0.00
ENV_{t-1}	0.00	0.00	0.80	0.00	0.00

Panel D: Mean for subsamples partitioned by customer (employee) orientation

Variable	Customer orientation			Employee orientation		
	Below median	Above median	*t*-stat for the difference	Below median	Above median	*t*-stat for the difference
$SALE_t$	11,659.71	5,302.33	8.64***	4,515.74	6,963.64	-7.11***
SGA_t / SA	23.84%	28.43%	-***	29.07%	27.07%	0.75
$\Delta lnSGA$	2.38%	4.87%	-***	4.07%	4.83%	-2.20**
$\Delta lnSALE$	2.91%	4.99%	-***	4.80%	4.45%	0.83
$ATINT_t$	0.05	-0.01	***	0.00	0.12	-7.91***
$EMPINT_t$	1.21	1.36	-***	1.39	1.15	12.43***
DEC_{t-1}	0.28	0.24	***	0.26	0.25	0.95
FCF_{t-1}	0.09	0.10	***	0.08	0.11	-11.80***
ROA_{t-1}	0.07	0.07	-0.96	0.04	0.08	-11.93***
RD_{t-1}	0.03	0.04	-***	0.03	0.04	-11.28***
MBZ_t	0.02	0.02	-0.29	0.02	0.01	2.48***
# observations	2,674	1,300		5,022	3,176	

Panel E: Descriptive statistics for variables used in partitioned sample analyses (Hypotheses 3 – 5) and additional analyses

Variables	# of observations	Mean	Median	Standard deviation	25%	75%
SGA_FV	15,216	0.61	0.44	0.53	0.29	0.58
BTM	19,779	0.48	0.41	0.46	0.25	0.64
INST	15,979	0.73	0.75	0.24	0.60	0.87
INDEP	10,857	73.70%	75.00%	14.30%	66.67%	85.71%
BOARD_SIZE	10,857	9.26	9.00	2.27	8.00	11.00

Notes: Panel A shows summary statistics for the sample used for hypotheses testing. To be comparable to prior literature, the descriptive statistics for $SALE_t$ and SGA_t are reported before adjustment for inflation. Panel B provides statistics for the control variables. Panel C provides the statistics for the stakeholder orientation variables. Panel D presents the mean of control variables for subsamples partitioned by customer orientation and employee orientation based upon the median. ** and *** denote significance at levels of 0.05 and 0.01, respectively, using two-tailed tests. Panel E provides descriptive statistics for variables used in supplemental analyses and additional analyses. See Appendix 2 for variable definitions.

TABLE 3
Correlation matrix

		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
(1)	$\Delta lnSGA_t$													
(2)	$\Delta lnSALE_t$	**0.645**												
(3)	DEC_{t-1}	**-0.216**	**-0.142**											
(4)	$ATINT_t$	**0.074**	**0.022**	**0.058**										
(5)	$EMPINT_t$	**-0.051**	**-0.086**	**0.017**	**-0.111**									
(6)	FCF_{t-1}	**0.105**	**-0.045**	**-0.088**	**-0.109**	**-0.030**								
(7)	ROA_{t-1}	**0.174**	0.008	**-0.205**	**-0.165**	**-0.019**	**0.565**							
(8)	RD_{t-1}	**0.017**	**0.056**	**0.014**	**0.189**	**-0.026**	**-0.257**	**-0.348**						
(9)	MBZ_t	**-0.012**	**-0.018**	**0.032**	**0.036**	0.002	**-0.024**	**-0.031**	**-0.017**					
(10)	$CUST_{t-1}$	**0.058**	**0.041**	**-0.029**	**-0.017**	**0.055**	0.007	**-0.028**	**0.042**	0.006				
(11)	$EREL_{t-1}$	**0.023**	0.001	0.009	**0.069**	**-0.089**	**0.077**	**0.079**	**0.085**	**-0.016**	**0.090**			
(12)	DIV_{t-1}	**-0.081**	**-0.070**	**0.034**	**-0.043**	**0.024**	**0.071**	**0.074**	0.000	**-0.024**	**-0.041**	**0.117**		
(13)	COM_{t-1}	**-0.032**	**-0.023**	**-0.020**	**-0.027**	**0.017**	**0.033**	**0.062**	**0.025**	**-0.014**	**-0.032**	**0.057**	**0.340**	
(14)	ENV_{t-1}	0.009	0.003	**-0.035**	0.000	**0.106**	**0.015**	**0.027**	**0.072**	-0.007	**0.048**	**0.120**	**0.134**	**0.243**

Notes: The table presents Pearson correlation coefficients between variables used for hypotheses tests. Bold coefficients are statistically significant at the 10 percent level or below. See variable definitions in Appendix 2.

TABLE 4
The relation between stakeholder orientation and cost stickiness

Independent variable	Pred. sign	Customer orientation	Employee orientation	Comprehensive model
		Coefficient (*t*-stat)	Coefficient (*t*-stat)	Coefficient (*t*-stat)
β_0: *Intercept*		-0.015 (-1.18)	-0.018 (-1.58)	-0.016 (-1.16)
β_1: $\Delta lnSALE_t$	+	0.614*** (48.39)	0.618*** (47.92)	0.615*** (47.02)
β_2: $DEC_t \times \Delta lnSALE_t$	−	-0.225*** (-9.92)	-0.223*** (-9.73)	-0.218*** (-9.41)
Two-way interactions ($Variable \times \Delta lnSALE_t$)				
γ_1: $CUST_{t-1}$		0.011 (0.52)		0.011 (0.52)
γ_2: $EREL_{t-1}$			0.041*** (3.09)	0.031** (2.36)
γ_3: DIV_{t-1}				0.023** (2.22)
γ_4: COM_{t-1}				0.071*** (3.29)
γ_5: ENV_{t-1}				0.025 (1.54)
Three-way interactions ($Variable \times DEC_t \times \Delta lnSALE_t$)				
γ_6: $CUST_{t-1}$	−	**-0.087** (-2.39)**		**-0.079** (-2.21)**
γ_7: $EREL_{t-1}$	−		**-0.054*** (-2.71)**	**-0.049** (-2.43)**
γ_8: DIV_{t-1}				0.010 (0.63)
γ_9: COM_{t-1}				-0.050 (-1.42)
γ_{10}: ENV_{t-1}				-0.016 (-067)
β_3: $ATINT_t$		-0.137*** (-7.17)		-0.128*** (-6.66)
β_4: $EMPINT_t$		0.072*** (4.66)		0.063*** (4.10)
β_5: DEC_{t-1}		0.088*** (3.44)		0.075*** (2.91)
β_6: FCF_{t-1}		0.094 (0.83)		0.046 (0.40)
β_7: ROA_{t-1}		0.146* (1.71)		0.148* (1.74)
β_8: RD_{t-1}		-0.465** (-2.56)		-0.503** (-2.53)
β_9: MBZ_t		0.092 (0.94)		0.096 (1.01)

Main effects			
γ_{11}: $CUST_{t-1}$	0.003 (1.44)		0.002 (0.88)
γ_{12}: $EREL_{t-1}$		-0.003** (-2.25)	-0.001 (-1.08)
γ_{13}: DIV_{t-1}			-0.005*** (-4.91)
γ_{14}: COM_{t-1}			-0.006*** (-3.16)
γ_{15}: ENV_{t-1}			-0.001 (-0.77)
β_{10}: $ATINT_t$	0.017*** (6.80)	0.017*** (6.71)	0.017*** (6.96)
β_{11}: $EMPINT_t$	0.007*** (3.98)	0.007*** (4.05)	0.006*** (3.34)
β_{12}: DEC_{t-1}	-0.022*** (-8.41)	-0.023*** (-8.54)	-0.022*** (-8.25)
β_{13}: FCF_{t-1}	0.098*** (5.17)	0.096*** (5.05)	0.092*** (4.84)
β_{14}: ROA_{t-1}	0.184*** (10.69)	0.182*** (10.55)	0.186*** (10.66)
β_{15}: RD_{t-1}	0.036 (1.18)	0.036 (1.19)	0.035 (1.15)
β_{16}: MBZ_t	0.015** (2.02)	0.014** (1.97)	0.014* (1.87)
Year/Industry fixed effect	Yes	Yes	Yes
Firm cluster	Yes	Yes	Yes
N	19,783	19,783	19,783
R^2 (%)	49.8%	49.8%	50.3%

Notes: The table presents regression results from model (1) as follows. See Appendix 2 for variable definitions. The *t*-stats are in parentheses below the coefficient estimates. *, **, and *** denote significance at levels of 0.10, 0.05, and 0.01 using two-tailed tests, respectively.

$$\Delta lnSGA_t = \beta_0 + \beta_1 \Delta lnSALE_t + \beta_2 \times DEC_t \times \Delta lnSALE_t + (\gamma_1 CUST_{t-1} + \gamma_2 EREL_{t-1} + \gamma_3 DIV_{t-1} + \gamma_4 COM_{t-1} + \gamma_5 ENV_{t-1}) \times \Delta lnSALE_t + (\gamma_6 CUST_{t-1} + \gamma_7 EREL_{t-1} + \gamma_8 DIV_{t-1} + \gamma_9 COM_{t-1} + \gamma_{10} ENV_{t-1} + \beta_3 ATINT_t + \beta_4 EMPINT_t + \beta_5 DEC_{t-1} + \beta_6 FCF_{t-1} + \beta_7 ROA_{t-1} + \beta_8 RD_{t-1} + \beta_9 MBZ_t) \times DEC_t \times \Delta lnSALE_t + \gamma_{11} CUST_{t-1} + \gamma_{12} EREL_{t-1} + \gamma_{13} DIV_{t-1} + \gamma_{14} COM_{t-1} + \gamma_{15} ENV_{t-1} + \beta_{10} ATINT_t + \beta_{11} EMPINT_t + \beta_{12} DEC_{t-1} + \beta_{13} FCF_{t-1} + \beta_{14} ROA_{t-1} + \beta_{15} RD_{t-1} + \beta_{16} MBZ_t + Year\ Indicator + Industry\ Indicator + \varepsilon_t \quad (1)$$

TABLE 5
SG&A cost stickiness for subsamples partitioned by SG&A value creation and firm's growth opportunity

Independent variable	SG&A value creation		BTM ratio	
	(1) Low (*SGA_FV* ≤ median)	(2) High (*SGA_FV* > median)	(3) Low (*BTM* ≤ median)	(4) High (*BTM* > median)
β_0: Intercept	0.015 (1.60)	0.009 (1.06)	-0.022 (-0.92)	-0.014 (-1.36)
β_1: $\Delta lnSALE_t$	0.579*** (29.12)	0.706*** (40.49)	0.590*** (32.14)	0.645*** (37.68)
β_2: $DEC_t \times \Delta lnSALE_t$	-0.141*** (-3.95)	-0.277*** (-8.83)	-0.166*** (-4.07)	-0.264*** (-9.36)
Two-way interactions (Variable×$\Delta lnSALE_t$)				
γ_1: $CUST_{t-1}$	-0.006 (-0.18)	0.058 (1.62)	0.008 (0.31)	0.010 (0.28)
γ_2: $EREL_{t-1}$	0.027 (1.33)	0.026 (1.43)	0.028 (1.55)	0.038** (2.15)
γ_3: DIV_{t-1}	0.027 (1.59)	0.010 (0.69)	0.021 (1.50)	0.030** (2.04)
γ_4: COM_{t-1}	0.125*** (3.83)	0.051 (1.27)	0.101*** (3.76)	0.033 (0.92)
γ_5: ENV_{t-1}	0.023 (0.96)	-0.124** (-2.54)	0.003 (0.12)	0.054** (2.47)
Three-way interactions (Variable×$DEC_t \times \Delta lnSALE_t$)				
γ_6: $CUST_{t-1}$	-0.053 (-0.87)	**-0.149**** **(-2.12)**	**-0.111**** **(-1.99)**	-0.047 (-0.85)
γ_7: $EREL_{t-1}$	**-0.054*** **(-1.74)**	-0.024 (-0.84)	-0.044 (-1.38)	**-0.057**** **(-2.32)**
γ_8: DIV_{t-1}	-0.001 (-0.05)	0.023 (0.90)	0.045* (1.86)	-0.014 (-0.62)
γ_9: COM_{t-1}	-0.060 (-1.17)	0.036 (0.52)	-0.134*** (-2.75)	0.028 (0.52)
γ_{10}:ENV_{t-1}	-0.026 (-0.70)	0.099 (1.40)	0.020 (0.53)	-0.058* (-1.89)
β_3: $ATINT_t$	-0.165*** (-5.71)	-0.055 (-1.59)	-0.149*** (-4.70)	-0.112*** (-4.39)
β_4: $EMPINT_t$	0.068** (2.62)	0.012 (0.47)	0.068*** (2.78)	0.058*** (2.94)
β_5: DEC_{t-1}	0.082** (2.21)	-0.059 (-1.36)	0.068 (1.44)	0.073** (2.33)
β_6: FCF_{t-1}	0.006 (0.04)	0.299 (1.25)	0.066 (0.42)	0.067 (0.35)
β_7: ROA_{t-1}	0.315** (2.39)	-0.271** (-2.18)	0.195* (1.67)	0.126 (0.87)
β_8: RD_{t-1}	-0.420 (-1.26)	-0.487* (-1.94)	-0.423* (-1.66)	-0.631** (-2.48)
β_9: MBZ_t	0.122 (0.93)	0.301*** (2.93)	0.008 (0.07)	0.108 (0.92)

Main effects				
γ_{11}: $CUST_{t-1}$	0.002	-0.004	0.001	0.003
	(0.58)	(-1.34)	(0.52)	(1.02)
γ_{12}: $EREL_{t-1}$	-0.001	-0.001	-0.001	-0.001
	(-0.38)	(-0.60)	(-0.78)	(-0.81)
γ_{13}: DIV_{t-1}	-0.007***	-0.002*	-0.005***	-0.004***
	(-4.09)	(-1.66)	(-3.77)	(-3.21)
γ_{14}: COM_{t-1}	-0.008***	-0.005	-0.011***	0.002
	(-2.41)	(-1.55)	(-4.71)	(0.46)
γ_{15}: ENV_{t-1}	-0.001	0.005	0.000	-0.003
	(-0.20)	(1.16)	(0.04)	(-1.39)
β_{10}: $ATINT_t$	0.013***	0.007**	0.025***	0.011***
	(4.05)	(2.49)	(7.12)	(3.39)
β_{11}: $EMPINT_t$	0.007***	0.001	0.004*	0.006**
	(2.69)	(0.78)	(1.70)	(2.56)
β_{12}: DEC_{t-1}	-0.022***	-0.025***	-0.024***	-0.019***
	(-5.61)	(-6.39)	(-6.17)	(-5.46)
β_{13}: FCF_{t-1}	0.142***	0.094***	0.084***	0.164***
	(5.28)	(3.77)	(3.76)	(5.78)
β_{14}: ROA_{t-1}	0.185***	0.124***	0.172***	0.226***
	(6.51)	(6.24)	(8.04)	(6.71)
β_{15}: RD_{t-1}	0.051	-0.051*	0.042	-0.036
	(1.28)	(-1.89)	(1.22)	(-0.89)
β_{16}: MBZ_t	0.011	0.017	0.023*	0.010
	(0.91)	(1.63)	(1.84)	(1.09)
Year/Industry fixed effect	Included		Included	
Firm cluster	Yes		Yes	
N	7,410	7,807	9,896	9,885
Adjusted R^2 (%)	48.5%	58.5%	52.0%	48.3%

Notes: This table presents the regression results from the model (1) for two sets of partitioned samples. The first set of partitioned samples is based on the future value creation of SG&A costs (*SGA_FV*) documented in Banker et al. (2011). The second partition of the sample is based upon whether a firm's growth opportunity, proxied by book-to-market (*BTM*), is higher than the annual median *BTM*. See Appendix 2 for variable definitions. The *t*-stats are in parentheses below the coefficient estimates. *, **, and *** denote significance at levels of 0.10, 0.05, and 0.01 using two-tailed tests, respectively.

$$\Delta lnSGA_t = \beta_0 + \beta_1 \Delta lnSALE_t + \beta_2 \times DEC_t \times \Delta lnSALE_t + (\gamma_1 CUST_{t-1} + \gamma_2 EREL_{t-1} + \gamma_3 DIV_{t-1} + \gamma_4 COM_{t-1} + \gamma_5 ENV_{t-1}) \times \Delta lnSALE_t + (\gamma_6 CUST_{t-1} + \gamma_7 EREL_{t-1} + \gamma_8 DIV_{t-1} + \gamma_9 COM_{t-1} + \gamma_{10} ENV_{t-1} + \beta_3 ATINT_t + \beta_4 EMPINT_t + \beta_5 DEC_{t-1} + \beta_6 FCF_{t-1} + \beta_7 ROA_{t-1} + \beta_8 RD_{t-1} + \beta_9 MBZ_t) \times DEC_t * \Delta lnSALE_t + \gamma_{11} CUST_{t-1} + \gamma_{12} EREL_{t-1} + \gamma_{13} DIV_{t-1} + \gamma_{14} COM_{t-1} + \gamma_{15} ENV_{t-1} + \beta_{10} ATINT_t + \beta_{11} EMPINT_t + \beta_{12} DEC_{t-1} + \beta_{13} FCF_{t-1} + \beta_{14} ROA_{t-1} + \beta_{15} RD_{t-1} + \beta_{16} MBZ_t + Year\ Indicator + Industry\ Indicator + \varepsilon_t \quad (1)$$

TABLE 6
SG&A cost stickiness for strong versus weak corporate governance subsamples

Independent variable	Institutional ownership		Board size		Board independence	
	(1)	(2)	(3)	(4)	(5)	(6)
	Low	High	Small	Large	Low	High
β_0: *Intercept*	-0.052***	0.052***	0.038	0.004	0.066***	-0.017*
	(-2.99)	(2.58)	(0.93)	(0.31)	(6.05)	(-1.67)
β_1: $\Delta lnSALE_t$	0.597***	0.612***	0.597***	0.662***	0.619***	0.632***
	(31.08)	(31.44)	(23.10)	(31.32)	(29.08)	(21.08)
β_2: $DEC_t \times \Delta lnSALE_t$	-0.243***	-0.164***	-0.209***	-0.199***	-0.227***	-0.174***
	(-6.97)	(-4.30)	(-4.72)	(-5.13)	(-5.72)	(-3.53)
Two-way interactions (Variable×$\Delta lnSALE_t$)						
γ_1: $CUST_{t-1}$	-0.023	0.028	0.095**	-0.025	-0.015	0.037
	(-0.78)	(0.72)	(2.04)	(-1.02)	(-0.40)	(1.32)
γ_2: $EREL_{t-1}$	0.047**	0.028	-0.007	0.049***	0.051**	0.011
	(2.56)	(1.37)	(-0.19)	(2.68)	(2.18)	(0.40)
γ_3: DIV_{t-1}	0.018	0.018	0.026	-0.002	0.011	0.029
	(1.22)	(1.06)	(1.16)	(-0.15)	(0.66)	(1.41)
γ_4: COM_{t-1}	0.072**	0.037	0.071	0.055**	0.076**	0.041
	(2.03)	(0.96)	(1.19)	(2.44)	(2.08)	(1.44)
γ_5: ENV_{t-1}	0.056***	0.006	0.013	0.042**	0.064**	0.008
	(2.62)	(0.25)	(0.22)	(2.22)	(2.06)	(0.29)
Three-way interactions (Variable×$DEC_t \times \Delta lnSALE_t$)						
γ_6: $CUST_{t-1}$	0.021	**-0.143****	**-0.193****	-0.055	-0.054	**-0.133*****
	(0.42)	**(-2.40)**	**(-2.50)**	(-1.22)	(-0.76)	**(-2.70)**
γ_7: $EREL_{t-1}$	**-0.077*****	-0.036	-0.011	**-0.096*****	**-0.104*****	-0.039
	(-2.69)	(-1.09)	(-0.24)	**(-3.29)**	**(-2.64)**	(-1.04)
γ_8: DIV_{t-1}	0.038	-0.002	-0.010	0.041*	0.006	0.009
	(1.57)	(-0.06)	(-0.29)	(1.72)	(0.19)	(0.27)
γ_9: COM_{t-1}	0.003	-0.076	-0.084	-0.043	-0.033	-0.045
	(0.05)	(-1.20)	(-0.87)	(-1.00)	(-0.48)	(-0.86)
γ_{10}: ENV_{t-1}	-0.036	0.015	0.061	-0.033	-0.072	0.026
	(-1.16)	(0.33)	(0.73)	(-1.17)	(-1.37)	(0.68)
β_3: $ATINT_t$	-0.121***	-0.123***	-0.128***	-0.093***	-0.150***	-0.063*
	(-4.54)	(-4.52)	(-3.95)	(-2.63)	(-4.72)	(-1.76)
β_4: $EMPINT_t$	0.063***	0.088***	0.031	0.100***	0.053*	0.083***
	(2.84)	(3.95)	(1.06)	(3.67)	(1.93)	(2.66)
β_5: DEC_{t-1}	0.067*	0.111***	0.091**	0.100**	0.126***	0.065
	(1.76)	(2.87)	(2.12)	(2.14)	(2.69)	(1.36)
β_6: FCF_{t-1}	0.164	-0.219	-0.157	0.144	0.119	-0.045
	(0.93)	(-1.14)	(-0.67)	(1.17)	(0.72)	(-0.17)
β_7: ROA_{t-1}	0.051	0.368**	0.306	0.467**	0.140	0.557***
	(0.46)	(2.27)	(1.64)	(2.33)	(0.69)	(2.76)
β_8: RD_{t-1}	-0.158	-1.320***	-0.747**	-0.758	-0.946***	-0.508
	(-0.71)	(-3.57)	(-2.39)	(-1.28)	(-2.77)	(-1.02)
β_9: MBZ_t	0.063	0.020	0.055	0.141	-0.056	0.167
	(0.33)	(0.20)	(0.34)	(1.14)	(-0.49)	(1.24)

Main effects						
γ_{11}: $CUST_{t-1}$	0.006**	-0.001	-0.002	0.002	0.003	-0.002
	(2.18)	(-0.31)	(-0.27)	(0.80)	(0.92)	(-0.94)
γ_{12}: $EREL_{t-1}$	-0.005**	0.001	0.004	-0.003*	-0.003	0.000
	(-2.44)	(0.47)	(1.08)	(-1.80)	(-1.26)	(0.05)
γ_{13}: DIV_{t-1}	-0.005***	-0.005***	-0.003	-0.002*	-0.004**	-0.003
	(-3.39)	(-2.91)	(-1.16)	(-1.93)	(-2.10)	(-1.62)
γ_{14}: COM_{t-1}	-0.003	-0.003	-0.014**	-0.005***	-0.006*	-0.007***
	(-0.88)	(-0.94)	(-2.09)	(-2.62)	(-1.74)	(-3.10)
γ_{15}: ENV_{t-1}	-0.001	-0.004	0.001	-0.003*	-0.005*	-0.000
	(-0.61)	(-1.24)	(0.15)	(-1.93)	(-1.71)	(-0.22)
β_{10}: $ATINT_t$	0.017***	0.025***	0.019***	0.019***	0.016***	0.025***
	(4.41)	(7.07)	(4.77)	(5.43)	(4.80)	(6.55)
β_{11}: $EMPINT_t$	0.007***	0.008***	0.004	0.004	0.005*	0.004
	(2.61)	(3.02)	(1.25)	(1.56)	(1.82)	(1.35)
β_{12}: DEC_{t-1}	-0.019***	-0.025***	-0.025***	-0.009**	-0.023***	-0.009**
	(-4.42)	(-6.29)	(-5.00)	(-2.40)	(-5.04)	(-2.31)
β_{13}: FCF_{t-1}	0.102***	0.089***	0.098***	0.119***	0.104***	0.130***
	(3.20)	(3.39)	(2.98)	(4.25)	(3.50)	(3.62)
β_{14}: ROA_{t-1}	0.186***	0.192***	0.207***	0.176***	0.166***	0.217***
	(7.35)	(7.09)	(6.04)	(4.95)	(4.83)	(5.99)
β_{15}: RD_{t-1}	0.075*	-0.011	-0.105**	0.000	-0.086*	-0.027
	(1.68)	(-0.35)	(-2.13)	(0.01)	(-1.77)	(-0.57)
β_{16}: MBZ_t	0.000	0.021**	0.017	0.022	-0.022*	0.052***
	(0.02)	(2.10)	(1.00)	(1.40)	(-1.65)	(3.42)
Year/Industry fixed effect	Included		Included		Included	
Firm cluster	Yes		Yes		Yes	
N	7,989	7,992	4,633	6,225	5,320	5,538
Adjusted R^2 (%)	46.3%	53.3%	53.0%	54.6%	53.2%	54.2%

Notes: This table presents the regression results from the model (1) for three sets of governance subsample. The first set of partitioned samples is based on whether institutional ownership (*INST*) is higher or lower than the yearly median value. The second set of partitioned samples is based on whether board size (*BOARD_SIZE*) is higher or lower than the annual median value. The third partition of the sample is based upon whether a firm's board independence (*INDEP*) is higher or lower than yearly median value. See Appendix 2 for variable definitions. The *t*-stats are in parentheses below the coefficient estimates. *, **, and *** denote significance at levels of 0.10, 0.05, and 0.01 using two-tailed tests, respectively.

$$\begin{aligned}\Delta lnSGA_t = {} & \beta_0 + \beta_1 \Delta lnSALE_t + \beta_2 \times DEC_t \times \Delta lnSALE_t \\ & + (\gamma_1 CUST_{t-1} + \gamma_2 EREL_{t-1} + \gamma_3 DIV_{t-1} + \gamma_4 COM_{t-1} + \gamma_5 ENV_{t-1}) \times \Delta lnSALE_t \\ & + (\gamma_6 CUST_{t-1} + \gamma_7 EREL_{t-1} + \gamma_8 DIV_{t-1} + \gamma_9 COM_{t-1} + \gamma_{10} ENV_{t-1} + \beta_3 ATINT_t \\ & + \beta_4 EMPINT_t + \beta_5 DEC_{t-1} + \beta_6 FCF_{t-1} + \beta_7 ROA_{t-1} + \beta_8 RD_{t-1} + \beta_9 MBZ_t) \times DEC_t \\ & \times \Delta lnSALE_t + \gamma_{11} CUST_{t-1} + \gamma_{12} EREL_{t-1} + \gamma_{13} DIV_{t-1} + \gamma_{14} COM_{t-1} + \gamma_{15} ENV_{t-1} \\ & + \beta_{10} ATINT_t + \beta_{11} EMPINT_t + \beta_{12} DEC_{t-1} + \beta_{13} FCF_{t-1} + \beta_{14} ROA_{t-1} + \beta_{15} RD_{t-1} \\ & + \beta_{16} MBZ_t + Year\ Indicator + Industry\ Indicator + \varepsilon_t \end{aligned} \quad (1)$$