Harvest Now or Invest Further—the Dilemma Reexamined

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Abstract

Firms regularly face a dilemma—whether to extract profits from the past investments or to invest further in value creation. Prior research calls this tradeoff strategic emphasis, and examines it by subtracting R&D expenses from advertising expenses. This investigation appears incomplete for three reasons. First, more than 75% of listed firms report no R&D and advertising expenses. Second, R&D expenses are often strategically underreported. And third, an increasing proportion of resources are invested on customer relations, human resource capabilities, and organizational capital. We address these limitations by more comprehensive identification of value appropriating and creating activities from SG&A expenses. We then propose a new measure of organizational emphasis to complement strategic emphasis. We find that unexpected shifts from value creation to value appropriation decreases a firm's market value, contrary to prior research finding. Yet, firms are better off harvesting value in periods of unusually good performance. The stock market's response to shifts in firm strategies differs based on the firm's economic circumstance and investment opportunity set.

Keywords: Strategic emphasis; intangible investments; R&D; advertising; organizational capital; stock returns

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1. Introduction

An organization's success depends on exploiting its existing capabilities while developing new competencies (Levinthal and March 1993; Atuahene-Gima 2005). Ideally, a firm would prefer to develop dynamic capabilities that allows it to accomplish both objectives while responding rapidly to market changes (Cepeda and Vera, 2007). However, developing dynamic capabilities is neither easy nor cheap. In more realistic scenarios, firms struggle to allocate their scarce resources between consumption and investing, exploitation and exploration, and value appropriation and creation, as described by Fisher (1930), March (1991), and Kyriakopoulosa and Moorman (2004) and Mizik and Jacobson (2003, MJ hereafter), respectively. In this study, we revisit the firms' dilemma on how to tradeoff between value creation and appropriation objectives. We extend MJ and a long line of research in marketing that examines these tradeoffs.[1] Consider a company that has to decide between harvesting a fading brand through a new sales promotion plan, or to cannibalize it and replace it with a new product idea with no immediate contribution to revenue but promising long-term potential.

In an empirical analysis of this dilemma, Mizik and Jacobson (2003, MJ hereafter) examine the stock market's response to tradeoffs involving the value appropriating impact of advertising and the value creating impact of research and development (R&D) on a sample of manufacturing firms. MJ find that an unanticipated shift in strategic emphasis from value creation to value appropriation improves firms' stock market value, on average. They conclude that (p. 70) investors view such harvesting of value as "being positively related to future-term performance," especially

[1] For example, marketing and technological synergy (Henard & Szymanski, 2001; Montoya-Weiss and Calantone, 1994; Moorman and Miner, 1997; Song and Parry, 1997), market orientation (Kyriakopoulosa and Moorman, 2004; Atuahene-Gima, 2005), and innovation and market performance (Yalcinkaya, Calantone and Griffith 2007)

for firms in high-technology group and in periods of abnormal profitability, indicating that firms should focus on reaping value especially in opportune times.

However, these findings run counter to a widely- held belief that capital formation improves future performance (e.g., Sougiannis 1994, Lev and Sougiannis 1996) and might not generalize for at least three reasons. First, advertising and R&D are just one proxy each of a firm's value appropriating and value creating activities respectively. Firms invest an increasing proportion of their resources on intangible assets other than R&D. such as customer relations, human resource capabilities, and organizational capital (Lev 2001). Many outlays other than R&D and advertising expenses such as brands, intellectual capital, copyrights, customer relations, licenses, computerized data and software, market intelligence, organizational technology, and human capital create value in both short- and long-term. These intangible outlays are economically important, because they amounted to $1.2 trillion in 2000 and are growing over time (Corrado et al. 2005).

Second, more than 75% of listed firms report no R&D and advertising expenses in their financial reports. Some firms strategically underreport R&D expenses to avoid revealing sensitive information to competitors (Koh and Reeb 2015). For example, Deutsche Telekom, Verizon, and UnitedHealth Group reported no R&D expenses for the years 2013, 2014, and 2015, respectively, despite being considered high-technology firms. Hence, the choice of R&D and advertising as measures of value creation and value appropriation severely limits the scope of firms that can be analyzed. As such, MJ examine a narrow subset of 566 firms from select manufacturing industries over 1980–1998, just 2% of approximately 25,000 firms whose data are available in Compustat over the last four decades.

Third, even when reported, R&D and advertising expenses are a very small part of the total assets; 3.8% and 1.4% respectively. Compare it to selling, general, and administrative (SG&A) expenses that amounts to 35% of the total assets on average (Enache and Srivastava 2016, ES hereafter), and consists of many value creation or value appropriation activities, besides R&D and advertising expenses (Lev and Radhakrishnan 2005; Corrado and Hulten 2010; Banker et al. 2011; Eisfeldt and Papanikolaou 2013; Falato et al. 2013). However, other than R&D and advertising, the value creation and appropriation outlays are neither separately reported nor separately identified in SG&A expenses; rather, they are reported in a commingled manner. Hence, while prior research has investigated the impact of some of these investments on firm value, such as brand equity (Rao, Agarwal and Dahlhoff 2004), customer satisfaction (Fornell, Morgeson III, and Hult 2016), human capital (Vomberg, Homburg, and Bornemann 2014) and operations capabilities (Yu, Ramanathan, and Nath 2014), most studies could not examine the tradeoffs between value creating and value appropriating outlays other than R&D and advertising (Maines et al. 2003). Relying only on R&D and advertising expenses to examine a firm's strategic emphasis can lead to measurement errors and misleading conclusions. MJ also suffers from this common limitation and calls for future research on strategic emphasis, specifically a more comprehensive examination of the determinants and the consequences of unanticipated shifts in a firm's strategic emphasis.

We respond to their call in two ways. First, we examine a larger and more representative sample of firms from all industries (except banking and financial industries) over a longer time horizon. Our study covers 159,041 firm-year observations from a 45-year period from 1971 to 2014. Second, we include a broader set of firm strategies by examining SG&A expenses. We rely on the methodology proposed by ES to overcome the limitation of commingled reporting imposed on SG&A expenses. Following ES, we first subtract R&D and advertising expenses from SG&A

expenses to compute MainSG&A expenses. This remaining SG&A expenses, or MainSG&A expenses as named by ES, are then split into two components: maintenance (those that produce benefits in the current year) and investments (those that are expected to produce future benefits). Thus, the maintenance component has the attribute of value appropriation activities and the investment component has the attributes of value creation activities.

We propose a new measure called organizational emphasis computed as the difference between the maintenance component of MainSG&A and its investments component, scaled by total assets. Similar to strategic emphasis which measures a firm's tradeoff between value creation by R&D and value appropriation by advertising, organizational emphasis measures a firm's tradeoff between the value creation by the investment component of MainSG&A and the value appropriation portion by the maintenance component of MainSG&A. We also examine a third measure–strategic tradeoff–measured as the sum of strategic emphasis and organizational emphasis. Both organizational emphasis and strategic tradeoff are negative, similar to MJ's strategic emphasis, indicating that firms sow more than they harvest, on average. The maintenance and investment components that go into the calculation of organizational emphasis are approximately four times and ten times larger than R&D and advertising expenses, respectively. These results demonstrate the merits of examining organizational emphasis, in addition to strategic emphasis, as a more comprehensive measure of the managers' dilemma.

Our first set of findings dramatically differs from MJ. Using both their measure as well as our measures of the tradeoffs, we find that an unanticipated shift in emphasis from value creation to value appropriation decreases firm value, on average. By classifying firms into high-, low-, and stable-technologies and by examining successive five-year periods from 1971–1975 to 2011–2014, we confirm this result for all three industry categories, as well as over most time periods.

We find the strongest differences from MJ for high-tech industries. Our results indicate that, except for a few low-technology firms that have little likelihood of earning significant future returns from investing activities, most firms are better off by retaining their focus on investing rather than harvesting, on average.

Nevertheless, we find differing trends over time using strategic and organizational emphasis. The market's response to unexpected shifts in strategic emphasis, from value creation to appropriation, has become less negative over time. However, market response to unexpected shift in organizational emphasis shows no significant time trend. The difference between these two trends is most stark for high-tech industries (also relative to low- and stable-technology industries), where the market's response to shifts in strategic emphasis has become less negative, and even turned positive, in most recent five-year period. Thus, we find results consistent with MJ for the high-tech firms in the latest five years of our study period, an interval that they did not examine. This result indicates that the market increasingly considers management's unexpected shift in focus from investing to harvesting as optimal, arguably because of changing competitive strategies and cost structures and more rapid technological obsolescence in high-technology industries (Shapiro and Varian 1999). The results using the measure of strategic tradeoff are similar to those obtained when using the measure of organizational emphasis.

Our second set of findings is consistent with MJ. We find that a shift from value creation to value appropriation positively impacts firm value in the periods of abnormal profitability. That is, it pays to harvest value when the going is good. We confirm this result using both strategic emphasis and organizational emphasis for all three industry groups. This amplification effect of strategic shift on market value has declined over the forty-four year period examined in our study; however, we find contrasting results by industry classification. For the high technology group, the

amplification effect has increased over time. For the low- and stable-technology groups, the amplification effect has decreased over time.

For high-tech firms, our findings indicate increasing returns from quick harvest of value in opportune times. This finding is consistent with changes in the nature of competitive strategies of high-tech industries documented in the management literature. For example, in many high-tech industries, products are becoming more expensive to produce and have a decreasing probability of success (Shapiro and Varian 1999). However, once successful, a new product or idea can be reproduced and distributed cheaply. Furthermore, product and service externality has become a significant competitive strategy. Hence, establishing a firm's own technology or product as the industry standard and creating a network externality is becoming a critical determinant of high-tech firms' competitive positions and winner-takes-all rewards structures (for example Intel and Microsoft) (Hill 1997; Schilling 2002). In general, our findings suggest that firms should principally focus their efforts on innovation and discovering breakthrough innovations to create new markets, networks, and customers (Sood and Tellis 2011). In opportune times, however, firms are better off shifting their focus to fully exploiting the potential of the discovered product (value appropriation).

In the next section, we draw on the extant literature to discuss the value creation and value appropriation components of the expenses reported in SG&A including the general accounting norms guiding the reporting of these expenses. In the third section, we develop a model to decompose SG&A into investment and maintenance components, develop new measures for organizational emphasis, and estimate the impact of a shift in strategic or organizational emphasis on stock market returns. In the fourth section, we present the results. In the fifth section, we summarize the key results including the implications for theory, research, and managers.

2. Expanded Overview of Value Creation and Value Appropriation

A wide range of business processes within a firm contribute to both value creation and value appropriation. Firms create value through the pursuit of new knowledge and competencies with a distinct level of uncertainty and uniqueness compared to existing competencies (March 1991, Levinthal and March 1993). Many expenses reported in SG&A reflect firms' diverse strategies, other than R&D and advertising, to create future value (Brynjolfsson and Hitt 2000; Cleland and Bruno 1996; Hauser, Simester, and Wernerfelt 1994). These outlays improve organizational knowledge and competencies (Eisfeldt and Papanikolaou 2013) and generate long-term competitive advantage (Wernerfelt 1984, Peteraf 1993, Dosi et al. 2000). For example, firms may invest in human capital to create value for the firm by attracting better employees, lowering turnover, reducing training costs, and building goodwill. Still others may invest in building strong brands to reduce overall marketing costs over the long run for brand extensions (Aaker and Biel 2013). Value creation also requires a firm's ability to adopt and integrate new processes, products, and services into existing routines. Entering new markets, developing new products, building new knowledge structures, creating new segmentation, positioning, or marketing mix strategies are all different ways to enhance customer value (Yalcinkaya, Calantone, and Griffith 2007). Outlays on nurturing relationships among a firm and its key external stakeholders, including distributors, retailers, end customers, other strategic partners, and community groups create future value. Investments in organizational structure, values or culture improve the work environment and routines (Schultz 1961). Firms also spend on building or procuring databases on their consumers, markets, and competitors to increase their share in existing markets and to enter new markets. Outlays intended to improve relationships with current customers or strengthen market share and brand loyalty in current market segments enhance future revenue streams. These costs are typically

reported in SG&A. However, SG&A also includes costs that have expenses that facilitate firms to earn revenues and profits in the current reporting period. Examples of such value appropriation nature include outlays on salaries and commission, transactions, and utilities.

Thus, one limitation of using SG&A expenses as a measure of investment or appropriation is its 'black-box' nature. Unlike product costs whose consumed portion is reported as cost of goods sold (COGS) and unconsumed portion is reported as assets in firms' balance sheets, generally accepted accounting principles require entire SG&A outlays to be expensed immediately as a period cost. The only separate line items identified in SG&A expenses are R&D and advertising expense. Thus, it is difficult to distinguish between activities intended to support current operations (value appropriation) from those intended to create future benefits (value creation) because they are reported in a commingled manner. The importance of value appropriation and creation activities, other than R&D and advertising expenses, reported in SG&A is depicted in Table 1. It presents a sample of prominent firms, such as Nestlé, Microsoft, Johnson & Johnson, Pfizer, International Business Machines, Google, Intel, and Coca-Cola, whose MainSG&A, defined as SG&A other than advertising and R&D expenses, exceeds $15 billion in the years 2013–2015. Many of these firms report no R&D or advertising expenses, and even when reported, those expenses contribute a very small percentage of total SG&A expenses. It is noteworthy that these firms provide scant details on what constitutes their SG&A expenses.

Another limitation is caused by the shortcomings of the financial reporting system for 'soft outlays.' The matching principle requires the costs to be matched to the corresponding revenue transactions or the period in which the resource gets used up. Physical items can be used at just one place at a moment in time. Their costs can be relatively easily matched to the item delivered to the customer (inventory), to an item produced (fuel, energy, or machine depreciation), or to the

period in which the asset gets used up (prepaid factory rental). These costs are then reported as COGS. Contrast it to the difficulty of matching soft outlays by assuming that Pythagoras theorem, an example of an intellectual capital, was developed by a firm. Such intellectual property does not get used up with production or time and can be simultaneously shared to produce infinite revenue streams at multiple places (Romer 1998). As such, soft outlays cannot be matched to a revenue transaction. Thus, they are expensed in the period of incurrence, but form a significant portion of SG&A expenses. Hence, it is necessary to develop a method that to separate SG&A expenses that generate future value from those that do not, to more comprehensively study the shift in strategic emphasis.

3. Research Method

We first describe the method used by ES to decompose SG&A to estimate the investment and the maintenance components. We then describe the measurement of organizational emphasis, consistent with the measure of strategic emphasis used by MJ, and the estimation of unanticipated shifts in the two measures.

Decomposition of SG&A into Investment and Maintenance Components

ES (2016) pioneer a novel method to divide the MainSG&A expenses into investment and maintenance components as shown in Figure 1.[2] ES's method relies on the idea that firms have limited resources and that a firm's resource allocation requires tradeoffs between current and future organizational needs (Williamson 1975, Donaldson 1984, Stein 1997, MJ, 2003, Dichev and Tang 2008, Banker et al. 2011). We first subtract R&D and advertising expenses from SG&A expenses

[2] Banker et al. (2011) propose an innovative approach for estimating the stock value of past successful SG&A expenses. However, their approach cannot be used to estimate strategic emphasis because it measures the accumulated value of past successful investment and not the outlays in the current period.

to compute *MainSG&A* expenses. We then estimate the following model, by industry and year, to split *MainSG&A* into two components: *MaintenanceMainSG&A* and *InvestmentMainSG&A* thus:

(1) $MainSG\&A_{i,t} = \alpha_{Ind,t} + \beta_{1,Ind,t} \times Revenues_{i,t} + \beta_{2,Ind,t} \times Dummy\_Revenue\_Decrease_{i,t} + \beta_{3,Ind,t} \times Dummy\_Loss_{i,t} + \varepsilon_{i,t}$,

where *i* = firm, *Ind* = industry defined by two-digit SIC code, and *t* = year.

MainSG&A (SG&A minus R&D and advertising expenses) and *Revenues* (Compustat SALES) are scaled by the average of the beginning and the ending total assets for the year (Compustat AT) (see Appendix). All finance firms are excluded, because the traditional cost classifications of COGS and SG&A do not apply to them (Enache and Srivastava 2016). *Dummy_Revenue_Decrease*, which takes the value of one if revenues decline during the year and zero otherwise, controls for the stickiness of SG&A expenses (Anderson et al. 2003). A dummy variable for accounting losses (*Dummy_Loss*) is included in the regression because losses often accompany significant corporate events (Abarbanell and Bushee 1997, Pinnuck and Lillis 2007).

The maintenance component of *MainSG&A* is calculated with the following equation:

(2) $\widehat{MaintenanceMainSG\&A}_{i,t} = \hat{\beta}_{1,Ind,t} \times Revenues_{i,t}$

The maintenance component can be interpreted as follows: If firms were allowed to initially inventory all SG&A outlays and then report only those matched with current revenues as expenses in the current period (Ohlson 2006), then this category would represent the *MainSG&A* outlays that were both incurred and expensed in the same year. The investment portion of outlays in *MainSG&A* are measured on a firm-year basis by subtracting the estimated *MaintenanceMainSG&A* from *MainSG&A*:

(3) $\widehat{InvestmentMainSG\&A}_{i,t} = MainSG\&A_{i,t} - \widehat{MaintenanceMainSG\&A}_{i,t}$.

The interpretation of investment component is consistent with previous section. It contains outlays that are expected to produce future benefits but do not create tangible assets.[3] Some examples of these outlays include investments in brands, social responsibility, board oversight, copyrights, customer data and relations, licenses, computerized data and software, market intelligence, organizational strategy, and human capital. Each of these investments generate returns that may extend beyond the current period.

Measuring Tradeoffs between Value Appropriation and Value Creation

MJ propose the following measure of the strategic emphasis (*SE*) as the relative investment between value appropriation and value creation using reported expenses on advertising and R&D, respectively. As shown in Figure 2, it is computed as:

(4) $SE_{i,t}$ = Advertising$_{i,t}$ − R&D$_{i,t}$

Both variables are scaled by average total assets. Similarly, we define organizational emphasis (*OE*) as the relative investment between value appropriation and value creation using the estimates of maintenance and investment portions of MainSG&A as follows:

(5) $OE_{i,t} = \widehat{Maintenance}MainSG\&A_{i,t} - \widehat{Investment}MainSG\&A_{i,t}$.

Both variables are scaled by average total assets. We also propose a combined measure of a firm's tradeoffs, called the strategic tradeoff (*ST*), as follows:

(6) $ST_{i,t} = OE_{i,t} + SE_{i,t}$.

The first measure limits the definition of value creating and value appropriating activities to R&D and adverting expenses (see Figure 2). The second measure extends the definition to include all activities reported in SG&A category except the ones included in the first measure. The

[3] SG&A expenses, unlike costs reported in cost of goods sold (COGS), do not create any tangible assets, otherwise those outlays would be reported as assets (shops or delivery trucks, for example

third measure combines both measures. The interpretation of all three measures is similar. Positive values indicate that a firm has a higher focus on value appropriation strategies than on value creation strategies in a given year. A positive trend in each of the three measures over time suggests an increasing focus on value appropriation and vice versa.

Measuring Unanticipated Shifts in Strategic Emphasis and Organizational Emphasis

The stock market reacts to the unanticipated shifts in a firm's strategy. When a firm decides to shift its emphasis from a short-term investment to a long-term investment, and vice-versa, it creates an information asymmetry between the firm and the market. Disclosures made by firms in annual financial statements reduce this information asymmetry. For example, firms can share plans to invest in future assets like brands versus harvest its current assets through aggressive price promotions. In efficient markets, all available public information on such shifts is reflected in the current stock price. However, unexpected shifts create changes in the stock price. These change reflects the market's assessments of changes in the present value of future cash flows from the firm's decision to change the relative emphasis from value creation to value appropriation.

MJ calculate a firm's unanticipated shift in strategic emphasis *(*SE) in a given year as the residual from a first-order autoregressive time-series model in the regression

(7) $SE_{i,t} = \alpha + \beta_1 \times SE_{i,t-1} + \sum_y \beta_y \times Dummy\_Year + \sum_s \beta_s \times Dummy\_Industry + \varepsilon_{i,t}$,

where i = firm, *Ind* = Industry, and t = year, *Dummy_Year* is a dummy variable to account for year-fixed effects, and *Dummy_Industry* is a dummy variable to account for industry-fixed effects. This model assumes that the expected value of strategic emphasis in the current year is same as that of the last year, unless changed because economic-wide factors (captured by year-fixed effects) and industry factors (captured by industry-fixed effects). The unexplained component from the model, the residual, is considered an unanticipated shift in strategic emphasis.

Accordingly, we calculate the unanticipated shift in the organizational emphasis (*OE*) and strategic tradeoff (*ST*), as the residuals from the following two equations:

(8) $OE_{i,t} = \alpha + \beta_1 \times OE_{i,t-1} + \sum_y \beta_y \times Dummy\_Year + \sum_s \beta_s \times Dummy\_Industry + \varepsilon_{i,t}$, and

(9) $ST_{i,t} = \alpha + \beta_1 \times ST_{i,t-1} + \sum_y \beta_y \times Dummy\_Year + \sum_s \beta_s \times Dummy\_Industry + \varepsilon_{i,t}$.

The three residuals from equations (7), (8), and (9) are referred to as $\Delta\widetilde{SE}$, $\Delta\widetilde{OE}$, and $\Delta\widetilde{ST}$, respectively. Similar to MJ, we estimate the unanticipated change in a firm's operating performance [return on assets (*ROA*)] by the residual from Equation (10) to control for the moderating impact of unanticipated operating performance on the relationship between the three measures of tradeoffs and market returns.

(10) $ROA_{i,t} = \alpha + \beta_1 \times ROA_{i,t-1} + \sum_y \beta_y \times Dummy\_Year + + \sum_s \beta_s \times Dummy\_Industry + \varepsilon_{i,t}$.

The residual is called $\Delta\widetilde{ROA}$, and represents a shock to current operating performance.

4. Empirical Tests and Results

The roadmap of this section is as follows: We first describe the sample selection. We then describe descriptive statistics and conduct correlational tests. We then conduct tests using $\Delta\widetilde{SE}$, the measure of strategic emphasis, for a wider sample of firms than used by MJ. We extend those tests with $\Delta\widetilde{OE}$ and $\Delta\widetilde{ST}$ measures. We then classify firms into high, stable, and low technology industries and conduct those tests separately on each set of firms. We next examine whether the patterns in market responses have changed over time and whether time-series trends, if any, differ across the three industry categories.

Sample Selection

Our sample is from a wide set of industries and includes all firms that report nonzero SG&A expenses to estimate the maintenance and investment portion of *MainSG&A* as well as to estimate

equation 4. We exclude banking and financial industries following ES because SG&A expenses and COGS distinctions are not meaningful for them. Each observation also requires data on SG&A, assets, revenues, earnings, share price, and shares outstanding for the current year, and earnings, assets, share price, and shares outstanding data for the prior year. Our sample contrasts with MJ, who create a highly restricted sample comprised only of firms from manufacturing industries that report nonzero advertising and R&D expenses, in that we also include all firms that do not report advertising and R&D expenses and replace missing values with zero. This inclusion is plausible as the *OE* measure examines advertising and R&D expenses as if they are included in *MainSG&A* when they are separately not reported.

Our study covers 159,041 firm-year observations from the 44-year period 1971–2014, a longer time series than the 1980–1998 period examined by MJ. All manufacturing firms are divided into high, stable, and low technology industries, consistent with MJ. Additional industries are classified into these three categories as shown in Table 2. The number of unique firm and firm-year observations in successive five year periods from 1971–1975 to 2011–2014 by industry categorization are presented in Table 3.

Descriptive statistics

Panel A of Table 4 presents the descriptive statistics for key variables examined in this study. The median firm reports no R&D or advertising outlay. The average value of the investment portion of *MainSG&A* is 0.186, five times larger than the average value of R&D of 0.038. The average value of the maintenance portion of *MainSG&A* is 0.164, which is eleven times higher than the average of 0.14 for advertising expenses. These results show that an inquiry into strategic emphasis is incomplete without considering *MainSG&A*.

The average values of $\Delta\widetilde{SE}$ and $\widetilde{\Delta OE}$ are negative on average at −0.025 and −0.021, respectively. Consistent with MJ, who estimate the average SE at −0.025, these results suggest that firms emphasize more on value creation than value appropriation, on average. Accordingly, the average value of $\Delta\widetilde{ST}$ is −0.046. The average stock return (*StkRet*) is 0.265, consistent with MJ's average value of 0.27. The average *ROA* is 0.008 which differs from MJ's value of 0.087, arguably because we include many loss-making and emerging non-manufacturing firms from the late 1990s and the 2000s and that are not included in MJ sample.

Panel B of Table 4 shows the average values of R&D, advertising expenses, and the investment and maintenance portions of *MainSG&A* expenses for the nine successive five-year intervals from 1971–1975 to 2011–2014. Results show that R&D and the investment portion of *MainSG&A* expenses have increased over time, but advertising expense and maintenance portion of *MainSG&A* expenses have declined. Consequently, firms have shifted their strategies toward value creation and away from value appropriation over time.

Table 5 presents the correlations among the key variables examined in this study. We find that stock return is positively associated with unanticipated improvements in firm's operating performance $\Delta\widetilde{ROA}$ (0.185, significant at p-value <0.01), as expected. However, stock return is negatively correlated with strategic emphasis as measured by $\Delta\widetilde{SE}$ and $\widetilde{\Delta OE}$, respectively (−0.021 and −0.029, significant at p-value <0.01). This indicates that the market reacts negatively when a firm unexpectedly emphasizes value appropriation more than value creation. However, the correlations of stock market returns with $\Delta\widetilde{\text{SE}}$ and $\widetilde{\Delta\text{OE}}$ are both positive (0.016 and 0.015, respectively, significant at p-value <0.01). $\Delta\widetilde{\text{SE}}$ and $\widetilde{\Delta\text{OE}}$ are positively correlated between themselves as well as with unanticipated ROA, indicating that a shift from value creation to appropriation causes improvements in current operating performance.

Market Response to Unanticipated Shifts in Strategic Emphasis

MJ assess the stock market's response to unanticipated shifts in strategic emphasis by regressing stock returns on the unanticipated change in ROA and strategic emphasis in the equation[4]

(11) $StkRet_{i,t} = \alpha_0 + \alpha_1 \times \Delta\widetilde{ROA}_{i,t} + \alpha_{20} \times \Delta\widetilde{SE}_{i,t} + \alpha_{21} \times \Delta\widetilde{ROA}_{i,t} \times \Delta\widetilde{SE}_{i,t} + \alpha_{22} \times SE_{i,t-1} \times \Delta\widetilde{SE}_{\text{it}} + \sum_c \beta_c \times Controls_{i,t} + \sum_s \beta_s \times Dummy\_Industry + \varepsilon_{i,t}.$

Controls include the natural logs of prior year's book-to-market ratio and market value and industry- and year-fixed effects. The regression coefficients are interpreted consistent with MJ. The market response coefficient, α_1, represents the change in stock value because of unanticipated improvements in ROA. Hence, α_1 is expected to be positive. The coefficient α_{20} represents the market's pricing of shifts in a firm's strategic emphasis in a given year. If the market views the shift from value creation to appropriation as favorable, then the coefficient should be positive. The coefficient α_{21}, represents the "amplification" effect of the unanticipated change in ROA on market value because of a shift in strategic emphasis. A positive value would indicate that a firm "experiencing a positive shock to ROA" or unusually good performance is better off by shifting its emphasis from value creation to appropriation. Coefficient α_{22} represents the moderating effect of past strategic emphasis on the stock market response to the unanticipated shift in the current period. A negative value would indicate diminishing marginal return from that strategy while a positive value would indicate some sort of specialization (for example, benefits from economies of scope).

The first three columns of Table 6 present the results using the *SE* measure of strategic emphasis. The market response coefficient, α_1, is positive and significant, as expected. More

[4] See MJ (p. 69) for the derivation.

importantly, the coefficient on shift in strategic emphasis is negative and significant (−0.281, *p*-value <0.001), indicating that the market views unexpected shifts from value creation to appropriation as unfavorable. This result is opposite to the result found by MJ but is consistent with a series of studies that find positive market response to R&D activities (e.g., Sougiannis 1994, Lev and Sougiannis 1996). The coefficient $\alpha_{21,}$ representing the amplification effect, is positive and significant, consistent with MJ. It indicates that firms are better off harvesting value in the periods of unusually good performance. The coefficient α_{22}, representing the moderating effect of past strategic emphasis, is negative and significant, indicating diminishing marginal returns on average.

Market Response to Unanticipated Shifts in Organizational Emphasis

We next estimate equation (12) using *OE* as a measure of organizational emphasis

(12) $$StkRet_{i,t} = \alpha_0 + \alpha_1 \times \widetilde{\Delta ROA}_{i,t} + \alpha_{30} \times \widetilde{\Delta OE}_{i,t} + \alpha_{31} \times \widetilde{\Delta ROA}_{i,t} \times \widetilde{\Delta OE}_{i,t} + \alpha_{32} \times OE_{i,t-1} \times \widetilde{\Delta OE}_{i,t} + \sum_c \beta_c \times Controls_{i,t} + \sum_s \beta_s \times Dummy\_Industry + \varepsilon_{i,t}$$

The fourth through sixth columns of Table 6 Panel A present the results of equation (12). The market response coefficient, α_1, remains positive and significant. In addition, the coefficient on shift in organizational emphasis is also negative and significant (−0.018, *p*-value<0.01), affirming the idea that the market views any unexpected shifts in a firm's organizational emphasis from value creation to value appropriation negatively. This result is consistent with ES, who find that Tobin's *q* is more positively associated with *InvestmentMainSG&A* than with *MaintenanceMainSG&A*, and that the stock investment strategies based on the former outlays can earn abnormal returns. Note that Tobin's *q* is commonly used as a proxy of value recognized by the market that is not reported as an asset on firm's books. The amplification effect of organizational shifts is also positive and significant, consistent with MJ. It indicates that firms are

better off harvesting value in the periods of unusually good performance. The moderating effect of past organizational emphasis, is negative but not significant, indicating an absence of any diminishing marginal returns or specialization.

We next include both *SE* and *OE* measures of tradeoffs in the same equation to examine the relative effects of the two measures

(13) $StkRet_{i,t} = \alpha_0 + \alpha_1 \times \Delta\widetilde{ROA}_{i,t} + \alpha_{20} \times \Delta\widetilde{SE}_{i,t} + \alpha_{21} \times \Delta\widetilde{ROA}_{i,t} \times \Delta\widetilde{SE}_{i,t} + \alpha_{22} \times SE_{i,t-1} \times \Delta\widetilde{SE}_{i,t} + \alpha_{30} \times \widetilde{\Delta OE}_{i,t} + \alpha_{31} \times \Delta\widetilde{ROA}_{i,t} \times \widetilde{\Delta OE}_{i,t} + \alpha_{32} \times OE_{i,t-1} \times \widetilde{\Delta OE}_{i,t} + \sum_c \beta_c \times Controls_{i,t} + \sum_s \beta_s \times Dummy\_Industry + \varepsilon_{i,t}$.

Results presented in the last three columns of Table 6 Panel A are similar to results obtained using the separate measures of $\Delta\widetilde{SE}$ and $\widetilde{\Delta OE}$. Notably, the coefficient on unexpected shifts in strategic emphasis is negative, and the amplification effect is positive for both measures. Thus, we find similar results by including both variables in the same model as the results obtained by examining them separately. Hence, these results also show that $\Delta\widetilde{SE}$ and $\widetilde{\Delta OE}$ represent two independent constructs; otherwise, at least some of the main coefficients would become insignificant because of multicollinearity.

We also use $\Delta\widetilde{ST}$ as a measure of strategic emphasis in the equation

(14) $StkRet_{i,t} = \alpha_0 + \alpha_1 \times \Delta\widetilde{ROA}_{i,t} + \alpha_{20} \times \Delta\widetilde{ST}_{i,t} + \alpha_{21} \times \Delta\widetilde{ROA}_{i,t} \times \Delta\widetilde{ST}_{i,t} + \alpha_{22} \times ST_{i,t-1} \times \Delta\widetilde{ST}_{i,t} + \sum_c \beta_c \times Controls_{i,t} + \sum_s \beta_s \times Dummy\_Industry + \varepsilon_{i,t}$.

Table 6 Panel B presents results for the pooled sample, which are very similar to those using the $\widetilde{\Delta OE}$ measure, likely because it dominates $\Delta\widetilde{SE}$ in the total measure.

Results by Three Industry Categories

We next estimate equation (13) by three industry categories. Panel A of Table 7 shows significant differences in results across the three-industry category. The coefficient on shift in

strategic emphasis (α_{20}) is negative and significant for high- and stable-technology industries (−0.399 and −0.394, respectively). However, it is insignificant for low technology industries. The coefficient on shift in organizational emphasis (α_{30}) is negative and significant for high technology industries (−0.044). However, it is insignificant for stable-technology industries and negative for low-technology industries. Yet, regardless of measure or industry category, the coefficient on shift in strategic emphasis or organizational emphasis is never positive and significant. Furthermore, it is consistently negative and significant for high technology industries that are typically characterized by better future growth opportunities, and which, by definition, are more likely to compete with intangible and knowledge capital than with physical assets when compared to stable and low technology industries. Thus, our results differ from MJ's study in a principal aspect. We find that the market views any unexpected shift from value creation to appropriation as unfavorable development, on average. Nevertheless, the results on the amplification effect (α_{21} and α_{31}) are consistent with MJ across both measures and all industries, indicating that firms are better off harvesting, rather than investing in, value when they experience positive shocks to operating performance.

Panel B of Table 7 presents results using the total measure. These results are similar to those using the $\widetilde{\Delta OE}$ measure. In particular, the market response to strategic shifts is negative for high- and stable-technology industries. Furthermore, the amplification effect is positive for all industries.

Time-series Trends

We next examine whether the results using equations (13) and (14) change over time or show any time-series trends. We divide observations by nine ten successive five-year intervals from 1971–1975 to 2011–2014 and estimate the two equations separately for each interval. We examine

trends for the pooled sample as well as separately for the three industry categories. For expositional reasons, we present the results in figures instead of tables.

Figures 3 and 4 show the trends in α_{20} and α_{30} (the market's pricing of unanticipated shifts in strategic emphasis and organizational emphasis, respectively). Figure 3 indicates that α_{20} has become less negative over time, and has even turned positive in the most recent interval. Stated differently, the market does not view the unanticipated shift in strategic emphasis as negatively as it used to in the early part of our study period. There is no significant time-series trend using $\widetilde{\Delta OE}$ measure, however. Figure 4 shows a declining trend over time in the amplification effect with both measures. This decline is more pronounced for the $\widetilde{\Delta OE}$ measure than for the $\widetilde{\Delta SE}$ measure. Results indicate that the benefits from harvesting value when the going is good has declined over time, especially for outlays that create organizational competency.

Figures 5–7 expand the trends of Figure 3 to the three industry categories. The results differ starkly across industries. The market's pricing of shifts in strategic emphasis shows a positive trend for high-tech industries but a negative trend for low- and stable-technology industries. Thus, the answer to the question of how the benefits of harvesting value now rather than later has changed over time depends on the industry. A positive trend for high-tech industries, arguably, indicates the increasing competitiveness and product obsolescence rates in that industry (Irvine and Pontiff, 2005). Thus, the benefits of immediate harvest have increased. This might be especially true in industries where establishing a firm's own technology as the industry standard is a critical determinant of its competitive position and a winner-takes-all rewards structure (for example, the successes of Microsoft and Intel, whose technologies set standards in personal computer industry; Hill 1997). These industries are often characterized by network externalities, where a single technology standard often rises to dominance, locking out competing technologies (Schilling

2002). In these industries, the timing might be a critical success factor to establish a first-mover advantage (Kerin, Varadarajan and Peterson 1992; Suarez and Lanzolla 2005). These firms might be better off by spending all out efforts to establish the product they have already created as the industry standard, instead of focusing on creating more innovative products for the future. Similar ideas are expressed in the proposition of "market driving" as a new paradigm for marketing high-technology products and innovations (Hills and Sarin 2003). Our time-series finding for high-technology industries might also indicate the declining marginal returns of innovation outlays (Curtis, McVay, and Toynbee 2016). In sum, the benefits of focusing on harvesting profits from past investments, instead of focusing on new innovations, appear to have increased over time.

Figures 8–10 expand the trends of Figure 4 to the three industry categories. Results for the amplification effect also lead to similar conclusions as the analysis for high-tech industry discussed in the previous paragraph. The trend is positive for high-tech industries but negative for low- and stable-technology industries. Thus, when the going is good for a high-tech firm (e.g., a new product finds acceptance), it might be increasingly beneficial to milk that opportunity than to enhance it further for future uncertain returns, arguably, because technological obsolescence may not provide such opportunity again.

The amplification effect using the $\widetilde{\Delta OE}$ measure shows consistent decline across the three industries, indicating that the importance of creating future organizational competencies, even in highly profitable times, has increased, not declined, over time. Figures 11 and 12 present trends with the $\Delta\widetilde{ST}$ measure and show trends similar to the $\widetilde{\Delta OE}$ measure.

5. Conclusion

Our study of the impact of shifts in firms' emphasis between value creation and value appropriation, examining 159,041 firm-year observations from the 44-year period 1971–2014

across a wide range of industries, provides several new insights. Specifically, after controlling for age dynamics and for industry and firm heterogeneity, the main findings are:

- A shift in strategic emphasis from value creation to value appropriation decreases firm value.
    - The effect is more pronounced for high-technology and stable technology industries than for low technology industries.
    - The negative effect of shifts in strategic emphasis has become less negative over time, and even turned positive in recent years.
- A shift in organizational emphasis from value creation to value appropriation decreases firm value.
    - The effect is more pronounced for high-technology and low-technology industries than for stable-technology industries.
    - There is no significant time-series trend and the impact has remained consistently negative throughout the period of analyses.
- Firms are better off harvesting value in periods of unusually good performance. However, the benefits from harvesting value when the going is good has declined over time, with the decline being more pronounced for organizational emphasis than for strategic emphasis. Nevertheless, this amplification effect has increased over time for high-technology industries, for strategic emphasis, a trend that contrasts with the other two industry groups.
- There are diminishing marginal returns to shifts in strategic emphasis. No such negative (or positive) effects occur for shifts in organizational emphasis.
- The results using the measure of strategic tradeoff are similar to those obtained when using the measure of organizational emphasis.

We briefly discuss the implications of these findings.

Implications for Theory and Research

Organizational Emphasis. This is the first study to examine the impact of shifts in short-term and long-term investments in organizational development using expenses reported in SG&A. Firms could increase their focus on exploiting existing options in the face of limited future options. The strongly negative returns to shifts towards value appropriation suggest that such decisions are perceived by stock markets as signals of stagnant consumer demand, growing competition, or a decline in growth aspirations of the firm. These findings are in line with extant literature that reports a positive stock market return to investments in innovation and new product development (Chaney, Divenney and Winer 1991; Sood and Tellis 2009; Hanssens, Rust, and Srivastava 2009) Our findings extend the analysis to other investments in value creation in domains other than innovation. However, some of our findings may be interpreted as consistent with the recent findings of MJ where firms are rewarded with higher returns in special circumstances. Future research may examine other contingencies when firms gain by an increased focus on value appropriation other than in opportune times. Moreover, our findings provide evidence for the suggestions by Hanssens, Rust, and Srivastava (2009) that the investor community is more interested in innovation than in advertising; future research may examine if firms can enhance returns by better communication with the investors community.

Distinguishing among Types of Industries. Our findings differs across industry groups. Thus what holds for one industry need not hold for another. Our findings underscore the need for more research on whether and how industry conditions affect decisions on strategic tradeoffs. At the very least, authors and readers of research reports should exercise caution when presenting or interpreting results from studies that focus on a single industry or whose sample is restricted to firms reporting R&D and advertising expenses. Furthermore, trends over time differ for high-

technology versus other firms and these differences diverge over time, indicating vastly different competing dynamics evolving in high-technology industries (Shapiro and Varian 1999)

Evaluating the Contribution of Marketing. Our method to decompose SG&A into investment and maintenance components allows an improved analysis of the contribution of marketing activities to the financial performance of a firm. Future research is needed to extend this method to address the growing concerns over the declining role of marketing. Arguably, relying exclusively on advertising expenses undermines the vast set of marketing activities that are reported in a commingled manner in SG&A expenses. Our study, hence, also responds to a call to research by Mizik and Nissim (2011) who demand the segregated reporting of marketing spending, such as in the categories of advertising, acquisition of brands and trademarks, market research, customer acquisition, and customer relationships, that would lead to better appreciation of marketing activities.

Implications for Managers

The findings have three implications for managers concerning allocation of resources to value creating and value appropriating domains:

- If stock market response is an indication of the potential success of a particular strategy, firms should focus more on value creation than value appropriation, in general.
- However, firms should shift their focus from creation of products to harvesting their value when their products find success. Identifying opportune times for harvesting investments is of critical importance in high-technology industries.
- Investments in organizational competency (e.g. brands, intellectual capital, customer relations, market intelligence, organizational technology, and human capital) are essential for superior firm performance.

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Table 1 Firms with the Largest MainSG&A from 2013–2015 (in millions)

Company	Fiscal year	SG&A	Advertising expense	R&D	MainSG&A	MainSG&A in SG&A
Walmart	2015	96,915	2,500	0	94,415	97%
Verizon	2014	41,016	2,526	0	38,490	94%
GE	2013	39,961	0	4,750	35,211	88%
A&T	2014	39,697	3,272	1,730	34,695	87%
Nestle	2013	34,905	0	1,688	33,217	95%
Volkswagen	2013	42,738	0	14,035	28,703	67%
Nippon Telegraph & Telephone	2012	31,782	1,107	2,859	27,816	88%
Deutsche Telekom	2013	25,187	0	134	25,053	99%
Unitedhealth Group	2015	24,312	0	0	24,312	100%
Walgreens	2016	23,337	598	0	22,739	97%
Pepsico	2014	25,582	2,300	718	22,564	88%
IBM	2013	29,703	1,294	5,959	22,450	76%
Petroleo Brasileiro	2014	22,207	0	1,099	21,108	95%
Daimler	2013	26,341	0	5,651	20,691	79%
Royal Dutch Shell	2013	21,271	0	1,318	19,953	94%
Johnson & Johnson	2014	30,228	2,600	8,672	18,956	63%
Honda Motor	2015	24,599	0	5,840	18,759	76%
Microsoft	2015	32,370	1,900	12,046	18,424	57%
Kroger	2015	18,669	679	0	17,990	96%
Novartis	2013	27,422	0	9,852	17,570	64%
Bayer	2013	21,289	0	4,396	16,893	79%
Amazon.com	2015	32,951	3,800	12,540	16,611	50%
CVS	2015	16,764	221	0	16,543	99%
BP	2013	16,991	0	707	16,284	96%
Hitachi	2012	19,913	332	3,625	15,956	80%

Notes. This table presents a sample of firms with large dollar values of SG&A and MainSG&A. Selling, general, and administrative (SG&A) and cost of goods sold (COGS) categories of expenses are measured by Compustat variables XSGA and COGS, respectively. MainSG&A is obtained by subtracting research and development (R&D) (Compustat XRD) and advertising expenses (Compustat XAD) from SG&A.

Table 2
Classification of industries*

High Technology	Stable Technology	Low Technology
Industrial and Commercial Machinery and	Metal Mining	Agricultural Production - Crops
Electronic & Other Electrical Equipment &	Coal Mining	Construction - General Contractors & Operative
Transportation Equipment	Oil and Gas Extraction	Construction - Special Trade Contractors
Measuring, Photographic, Medical, & Optical	Mining and Quarrying of Nonmetallic	Food and Kindred Products
Communications	Heavy Construction, Except Building	Lumber and Wood Products, Except Furniture
Business Services	Textile Mill Products	Furniture and Fixtures
Motion Pictures	Apparel, Finished Products from Fabrics &	Paper and Allied Products
Health Services	Printing, Publishing and Allied Industries	Leather and Leather Products
Educational Services	Chemicals and Allied Products	Stone, Clay, Glass, and Concrete Products
Engineering, Accounting, Research, and	Petroleum Refining and Related Industries	Pipelines, Except Natural Gas
Management Services	Rubber and Miscellaneous Plastic Products	Wholesale Trade - Durable Goods
	Primary Metal Industries	Wholesale Trade - Nondurable Goods
	Fabricated Metal Products	Building Materials, Hardware, Garden Supplies
	Miscellaneous Manufacturing Industries	General Merchandise Stores
	Railroad Transportation	Food Stores
	Motor Freight Transportation	Home Furniture, Furnishings and Equipment
	Water Transportation	Eating and Drinking Places
	Transportation by Air	Miscellaneous Retail
	Transportation Services	Hotels, Rooming Houses, Camps, and Other
	Electric, Gas and Sanitary Services	Personal Services
	Automotive Dealers and Gasoline Service	Social Services
	Apparel and Accessory Stores	Nonclassifiable Establishments
	Automotive Repair, Services and Parking	
	Amusement and Recreation Services	

* Consistent with Mizik and Jacobson 2003

Table 3
Number of firm-year observations for the study period

	Firm-year observations in a five-year period				Unique firms in a five-year period			
Years	High Technology	Stable Technology	Low Technology	Total	High Technology	Stable Technology	Low Technology	Total
1971–1975	4,112	4,680	3,982	12,774	1,030	1,144	975	3,149
1976–1980	4,474	4,934	4,168	13,576	1,140	1,232	1,030	3,402
1981–1985	5,997	5,984	4,316	16,297	1,728	1,730	1,188	4,646
1986–1990	7,569	6,206	4,361	18,136	2,190	1,785	1,264	5,239
1991–1995	8,284	6,646	4,526	19,456	2,367	1,828	1,268	5,463
1996–2000	11,639	8,183	5,751	25,573	3,449	2,301	1,621	7,371
2001–2005	12,899	8,411	4,934	26,244	3,432	2,320	1,308	7,060
2006–2010	10,824	9,238	4,115	24,177	2,893	2,575	1,052	6,520
2011–2014	5,588	5,812	2,174	13,574	2,161	2,297	833	5,291
Total	71,386	60,094	38,327	169,807				

Table 4
Descriptive statistics

Panel A: Pooled statistics

	Mean	Standard deviation	First quartile	Median	Third quartile
Total assets	1,849	12,256	22	98	505
Market value	1,786	11,923	14	69	433
Revenue	1,657	9,947	22	106	532
Market-to-book ratio	2.421	3.267	0.771	1.452	2.684
ROA	0.008	0.249	−0.024	0.067	0.131
Advertising	0.014	0.034	0	0	0.010
R&D	0.038	0.092	0	0	0.036
MaintenanceMainSG&A	0.164	0.226	0.049	0.142	0.251
InvestmentMainSG&A	0.186	0.697	−0.011	0.076	0.219
SE	−0.025	0.099	−0.027	0	0
OE	−0.021	0.774	−0.106	0.045	0.216
ST	−0.046	0.799	−0.136	0.027	0.208
StkRet	0.265	0.949	−0.255	0.063	0.459

Panel B: Average values of value creation and appropriation over successive five-year periods.

	Value Appropriation		Value Creation		*Tradeoffs*	
Years	*Advertising*	*Maintenance MainSG&A*	*R&D*	*Investment MainSG&A*	*SE*	*OE*
1971–1975	0.016	0.181	0.013	0.080	0.003	0.102
1976–1980	0.019	0.207	0.015	0.078	0.004	0.130
1981–1985	0.018	0.194	0.022	0.094	−0.004	0.100
1986–1990	0.018	0.188	0.031	0.107	−0.013	0.081
1991–1995	0.013	0.198	0.036	0.100	−0.023	0.098
1996–2000	0.011	0.184	0.046	0.135	−0.035	0.048
2001–2005	0.012	0.140	0.053	0.321	−0.041	−0.180
2006–2010	0.010	0.123	0.052	0.267	−0.042	−0.144
2011–2014	0.009	0.072	0.051	0.417	−0.041	−0.346

All variables are defined in Appendix. Number of observations are presented in Table 3.

Table 5
Correlations among key variables

	SE	*OE*	*ROA*	$\Delta\widetilde{SE}$	$\widetilde{\Delta OE}$	$\Delta\widetilde{ROA}$
StkRet	−0.021***	−0.029***	0.044***	0.016***	0.015***	0.185***
SE		0.190***	0.390***	0.451***	0.074***	0.126***
OE			0.457***	0.068***	0.668***	0.182***
ROA				0.146***	0.206***	0.541***
$\Delta\widetilde{SE}$					0.072***	0.168***
$\widetilde{\Delta OE}$						0.209***

All variables are defined in Appendix. Number of observations are presented in Table 3. *** denotes statistical significance (two-sided) at the 1% level.

Table 6
The association between stock returns and shifts in strategic emphasis and organizational emphasis

Panel A: Separate measures of strategic emphasis and organizational emphasis

	Only MJ measure of strategic shift			*Only ES measure of strategic shift*			*Both MJ and ES measures of strategic shift*		
	Estimate	*t*-statistic	*p*-value	Estimate	*t*-statistic	*p*-value	Estimate	*t*-statistic	*p*-value
Intercept	–	–	–	–	–	–	–	–	–
$\Delta\widetilde{ROA}$	1.691	98.95	<.001	1.702	100.00	<.001	1.735	100.12	<.001
$\Delta\widetilde{SE}$	−0.281	−3.36	0.001	–	–	–	−0.297	−3.56	0.001
$\Delta\widetilde{ROA} \times \Delta\widetilde{SE}$	3.790	19.19	<.001	–	–	–	3.340	16.89	<.001
$SE_{t-1} \times \Delta\widetilde{SE}$	−1.313	−5.74	<.001	–	–	–	−1.309	−5.73	<.001
$\Delta\widetilde{OE}$	–	–	–	−0.018	−2.88	0.004	−0.018	−2.83	0.005
$\Delta\widetilde{ROA} \times \Delta\widetilde{OE}$	–	–	–	0.819	28.12	<.001	0.772	26.42	<.001
$OE_{t-1} \times \Delta\widetilde{OE}$	–	–	–	−0.003	−1.38	0.193	−0.003	−1.3	0.194
Controls*			Yes			Yes			Yes
N			159,041			159,041			159,041
Adjusted *R*-squared			16.33%			16.51%			16.71%

Panel B: Using measure of strategic tradeoff

	Estimate	*t*-statistic	*p*-value
Intercept	–	–	–
$\Delta\widetilde{ROA}$	1.719	100.56	<.001
$\Delta\widetilde{ST}$	−0.022	−3.57	<.001
$\Delta\widetilde{ROA} \times \Delta\widetilde{ST}$	0.862	30.50	<.001
$ST_{t-1} \times \Delta\widetilde{ST}$	−0.004	−1.48	0.140
Controls*			Yes
N			159,041
Adjusted *R*-squared			16.59%

* Log of lagged book-to-market ratio, log of lagged market value, industry-fixed effects, and year-fixed effects. Dependent variable is *StkRet* (Stock return). All variables are defined in Appendix. Number of observations are presented in Table 3.

Table 7
The association between stock returns and shifts in strategic emphasis and organizational emphasis by industry

Panel A: Separate measures of strategic emphasis and organizational emphasis

	High technology			*Stable technology*			*Low technology*		
	Estimate	*t*-statistic	*p*-value	Estimate	*t*-statistic	*p*-value	Estimate	*t*-statistic	*p*-value
Intercept	–	–	–	–	–	–	–	–	–
$\Delta\widetilde{ROA}$	1.924	72.14	<.001	1.398	50.82	<.001	2.12	49.70	<.001
$\Delta\widetilde{SE}$	−0.399	−3.40	0.001	−0.394	−2.40	0.017	0.07	0.36	0.717
$\Delta\widetilde{ROA} \times \Delta\widetilde{SE}$	3.059	11.92	<.001	3.762	10.06	<.001	3.00	4.22	<.001
$SE_{t-1} \times \Delta\widetilde{SE}$	−1.363	−3.86	0.000	−1.619	−4.53	<.001	−1.92	−2.16	0.031
$\widetilde{\Delta OE}$	−0.044	−4.24	<.001	0.013	1.10	0.270	−0.02	−1.97	0.049
$\Delta\widetilde{ROA} \times \widetilde{\Delta OE}$	0.785	19.22	<.001	0.700	12.91	<.001	1.01	14.81	<.001
$OE_{t-1} \times \widetilde{\Delta OE}$	−0.005	−1.01	0.310	−0.012	−2.04	0.041	0.01	1.66	0.097
Controls*			Yes			Yes			Yes
N			66,070			56,544			36,427
Adjusted *R*-squared			19.71%			15.92%			16.71%

Panel B: Using measure of strategic tradeoff

	High technology			*Stable technology*			*Low technology*		
	Estimate	*t*-statistic	*p*-value	Estimate	*t*-statistic	*p*-value	Estimate	*t*-statistic	*p*-value
Intercept	–	–	–	–	–	–	–	–	–
$\Delta\widetilde{ROA}$	2.132	50.3	<.001	1.385	50.81	<.001	1.895	72.61	<.001
$\Delta\widetilde{ST}$	−0.020	−2.1	0.04	0.007	0.58	0.563	−0.051	−4.83	<.001
$\Delta\widetilde{ROA} \times \Delta\widetilde{ST}$	1.040	15.4	<.001	0.809	15.33	<.001	0.878	22.44	<.001
$ST_{t-1} \times \Delta\widetilde{SE}$	0.006	1.7	0.09	−0.015	−2.51	0.012	−0.005	−1.06	0.290
Controls*			Yes			Yes			Yes
N			66,070			56,544			36,427
Adjusted *R*-squared			19.57%			16.02%			16.69%

* Log of lagged book-to-market ratio, log of lagged market value, industry-fixed effects, and year-fixed effects. Dependent variable is *StkRet* (Stock return). All variables are defined in Appendix. Number of observations are presented in Table 3.

Figure 1. Decomposition of SG&A into value creation and value appropriation components

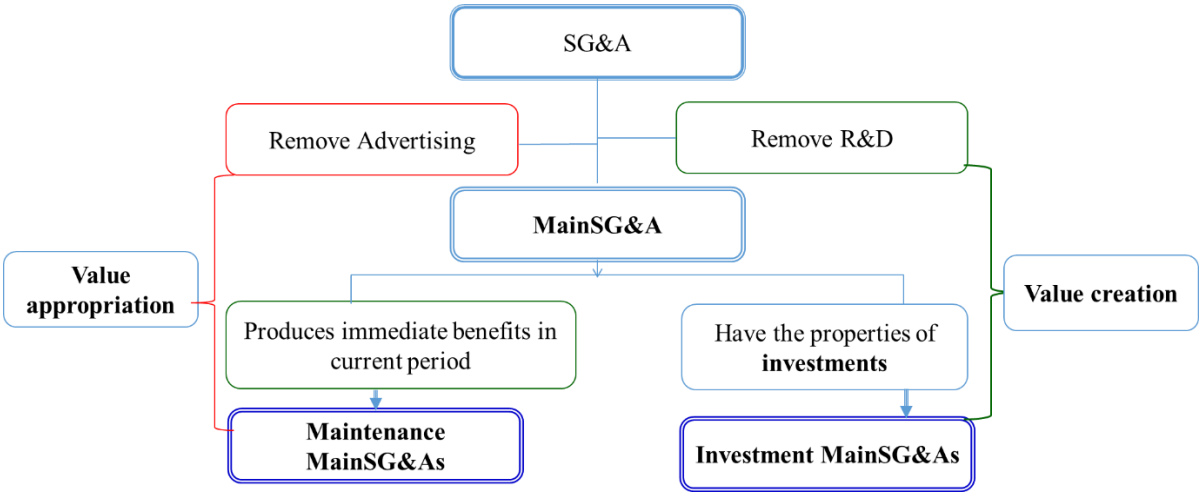
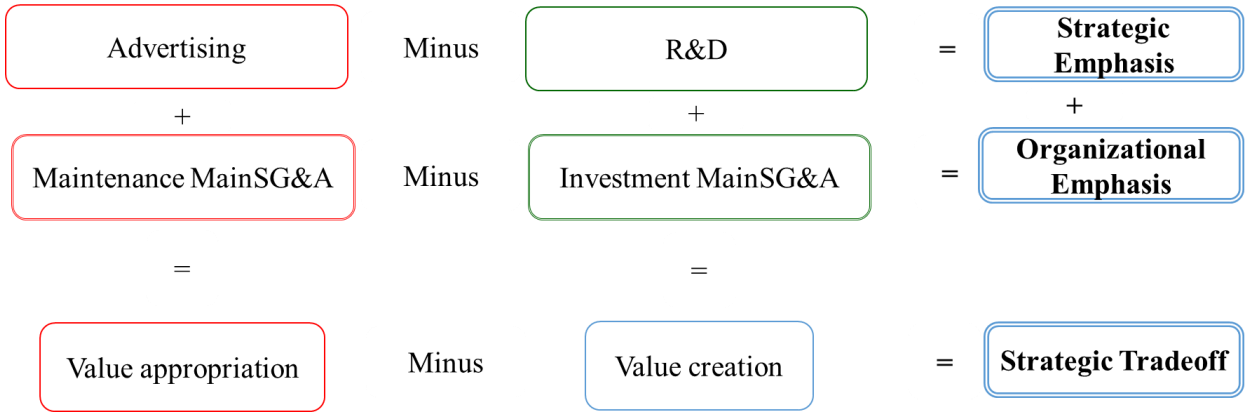
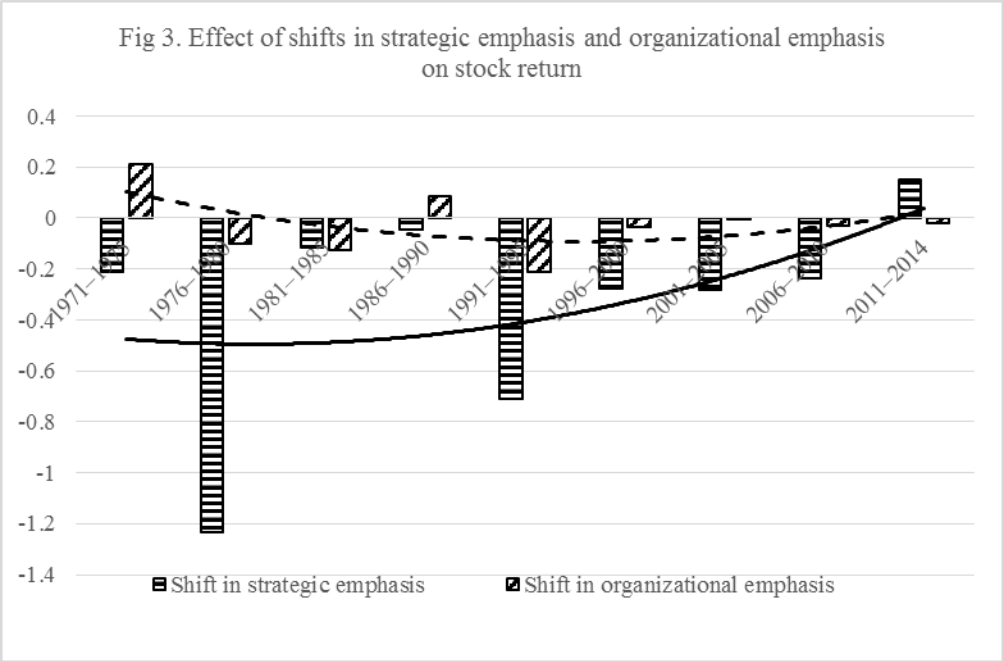
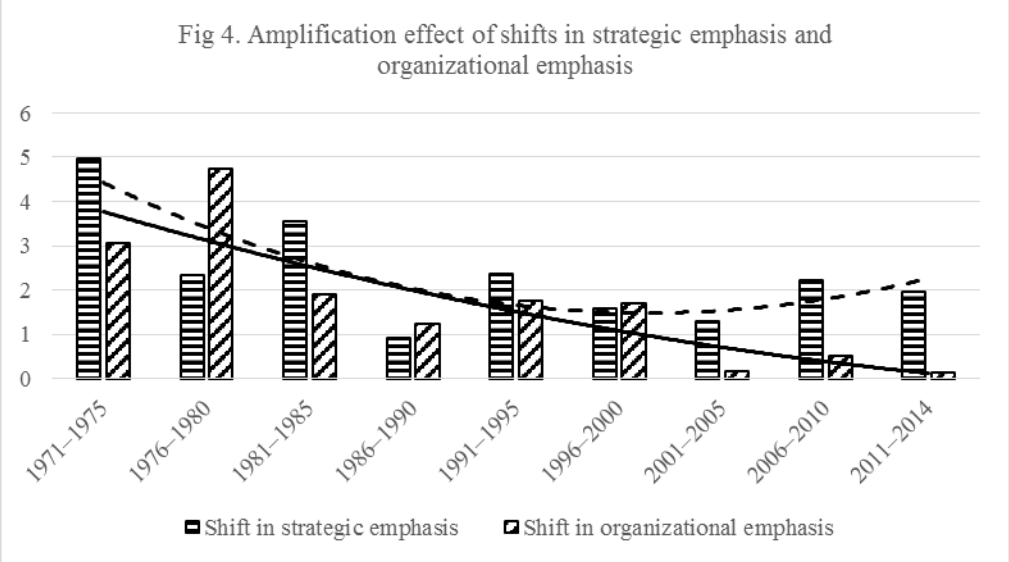


Figure 2. Calculation of Strategic Emphasis and Organizational Emphasis

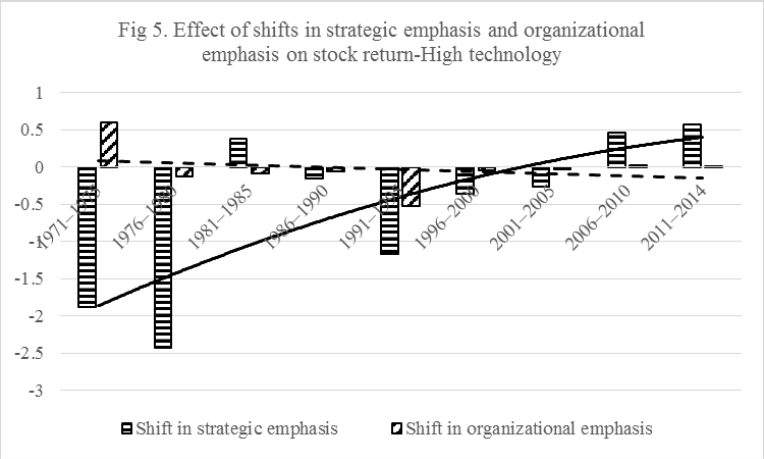


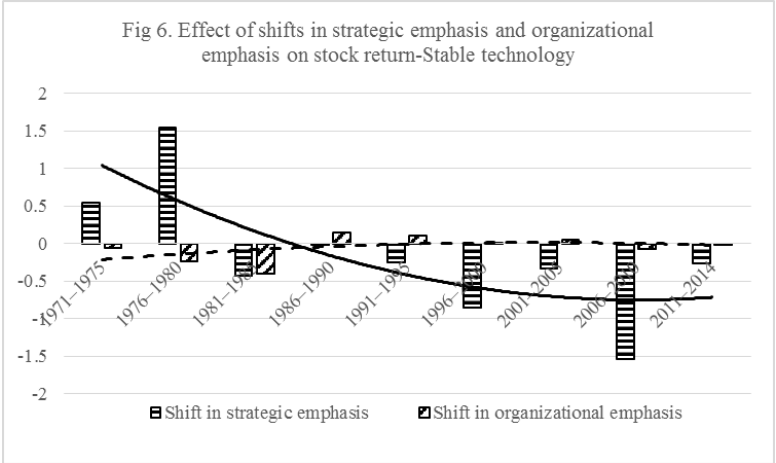
Figures 3 and 4
Over time change in effects of shifts in strategic emphasis and organizational emphasis on stock returns

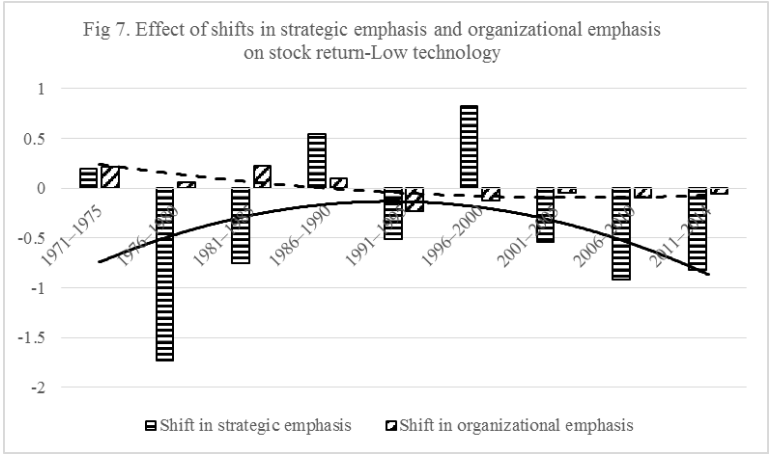




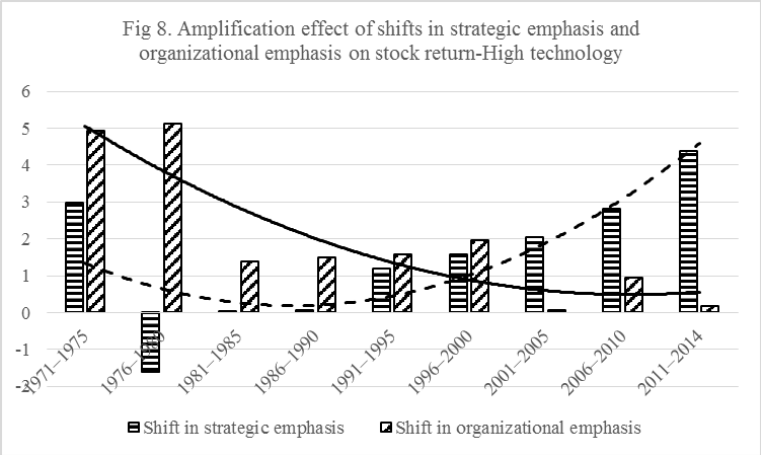
Figures 5, 6, and 7
Over time change in effects of shifts in strategic emphasis and organizational emphasis on stock returns, by technology

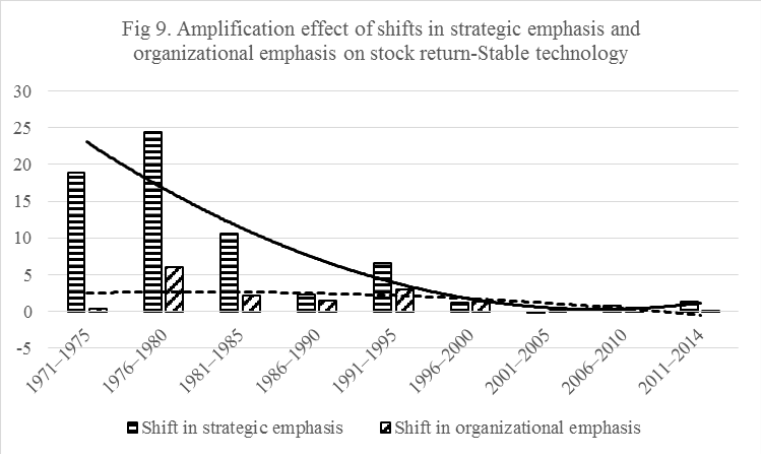


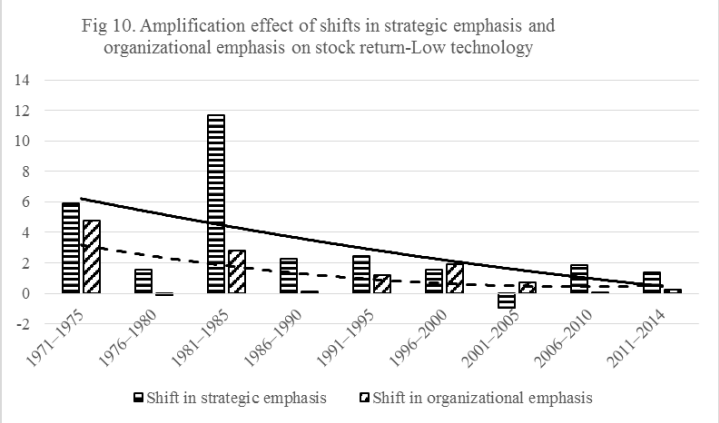




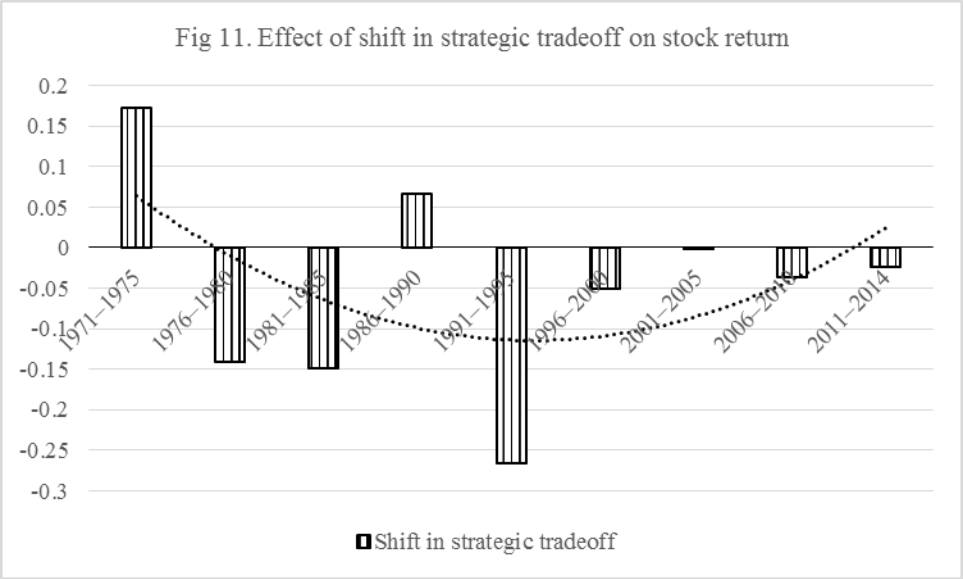
Figures 8, 9, and 10
Over time change in amplification effects of shifts in strategic emphasis and organizational emphasis on stock returns, by technology

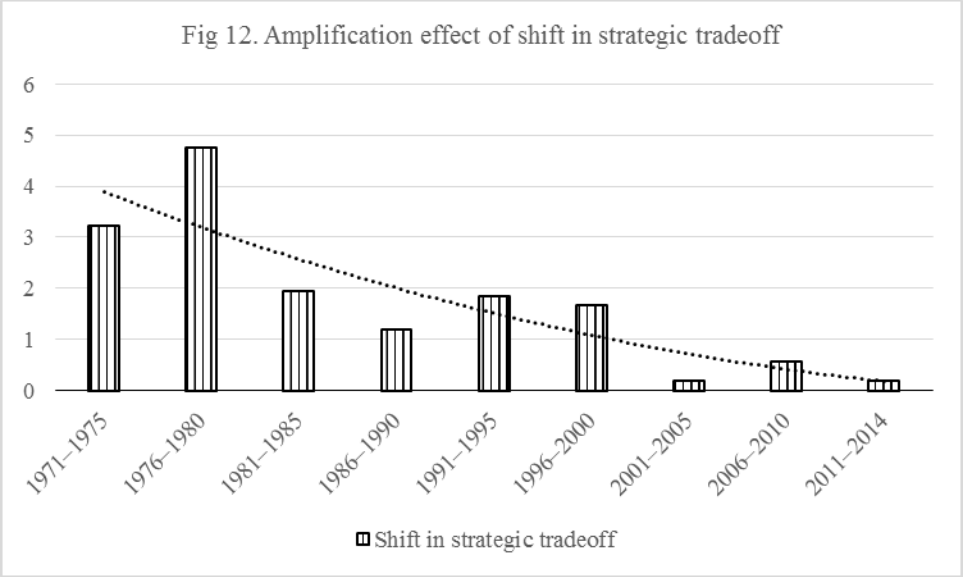






Figures 11 and 12
Over time change in effects of shift in strategic tradeoff on stock returns





Appendix. Definition and Measurement of Variables

Compustat Annual		
Average total assets	=	Average of the beginning and ending total assets (Compustat AT) for the year.
Revenues	=	Revenue (Compustat SALE) scaled by average total assets.
R&D	=	R&D outlays (Compustat XRD) scaled by average total assets
Advertising	=	Advertising expenses (Compustat XAD) scaled by average total assets
SG&A (selling, general, and administrative expenses)	=	Compustat XSGA: "all commercial expenses of operation (i.e., expenses not directly related to product production) incurred in the regular course of business pertaining to the securing of operating income." It includes immediately expensed costs in activities such as R&D, marketing, advertising, training, and sales promotion, but excludes costs classified as cost of sales (Compustat COGS). This item excludes depreciation allocated to the SG&A category. This item is scaled by average total assets.
MainSG&A	=	*SG&A – R&D – Advertising*.
ROA	=	Compustat operating income after depreciation (OIADP), scaled by average total assets.
MVE (Market value of equity)	=	End-of-year share price (Compustat PRCC_F) × Number of shares outstanding (CSHO).
StkRet (Stock return)	=	[*MVE* + Dividends (DVC)– MVE_{t-1}) / MVE_{t-1}]
BTM (Book-to-market ratio)	=	Book value of equity (CEQ)/ *MVE*
Log of lagged book-to-market ratio,	=	Log of BTM_{t-1}
Log of lagged market value	=	Log of MVE_{t-1}
MaintenanceMainSG&A (maintenance component of *MainSG&A*)	=	MainSG&A that supports current operations. We first estimate the following regression by industry and year: $MainSG\&A_{i,t} = \alpha_{Ind,t} + \beta_{1,Ind,t} \times Revenues_{i,t} + \beta_{2,Ind,t} \times Dummy\_Revenue\_Decrease_{i,t} + \beta_{3,Ind,t} \times Dumm\_Loss_{i,t} + \varepsilon_{i,t}$ where *Dummy_Revenue_Decrease* is a dummy variable if the revenues decline during the year and zero otherwise, *Dummy_Loss* is a dummy variable for accounting loss, *i* = firm, *Ind* = Industry, and *t* = year. The industry is defined by using the two-digit SIC code classification. We then calculate the maintenance component of the MainSG&A outlays as follows: $\widehat{MaintenanceMainSG\&A}_{i,t} = \hat{\beta}_{1,Ind,t} \times Revenues_{i,t}$
InvestmentMainSG&A (investment component of *MainSG&A*)	=	$MainSG\&A_{i,t} - \widehat{MaintenanceMainSG\&A}_{i,t}$
SE	=	Strategic emphasis as defined by Mizik and Jacobson (2003), calculated by subtracting *R&D* from *Advertising*
OE	=	Organizational emphasis consistent with Enache and Srivastava (2016) calculated by subtracting *InvestmentMainSG&A* from *MaintenanceMainSG&A*.
ST	=	Strategic tradeoff. Sum of *SE* and *OE*

Appendix continued

$\widetilde{\Delta ROA}$ (unanticipated *ROA*)	=	Residual from the following equation: $ROA_{i,t} = \alpha + \beta_1 \times ROA_{i,t-1} + \sum_y \beta_y \times Dummy\_Year + + \sum_s \beta_s \times Dummy\_Industry + \varepsilon_{i,t}$, where *i* = firm, *Ind* = Industry, and *t* = year, *Dummy_Year* is a dummy variable to account for year-fixed effects and *Dummy_Industry* is a dummy variable to account for industry-fixed effects. Industry defined by two-digit SIC code, and *t* = year.
$\widetilde{\Delta SE}$ (unanticipated *SE*)	=	Residual from the following equation: $SE_{i,t} = \alpha + \beta_1 \times SE_{i,t-1} + \sum_y \beta_y \times Dummy\_Year + \sum_s \beta_s \times Dummy\_Industry + \varepsilon_{i,t}$, where *i* = firm, *Ind* = Industry, and *t* = year, *Dummy_Year* is a dummy variable to account for year-fixed effects and *Dummy_Industry* is a dummy variable to account for industry-fixed effects. Industry defined by two-digit SIC code, and *t* = year.
$\widetilde{\Delta OE}$ (unanticipated *OE*)	=	Residual from the following equation: $OE_{i,t} = \alpha + \beta_1 \times OE_{i,t-1} + \sum_y \beta_y \times Dummy\_Year + \sum_s \beta_s \times Dummy\_Industry + \varepsilon_{i,t}$, where *i* = firm, *Ind* = Industry, and *t* = year, *Dummy_Year* is a dummy variable to account for year-fixed effects and *Dummy_Industry* is a dummy variable to account for industry-fixed effects. Industry defined by two-digit SIC code, and *t* = year.
$\widetilde{\Delta ST}$ (unanticipated *ST*)	=	Residual from the following equation: $ST_{i,t} = \alpha + \beta_1 \times ST_{i,t-1} + \sum_y \beta_y \times Dummy\_Year + \sum_s \beta_s \times Dummy\_Industry + \varepsilon_{i,t}$, where *i* = firm, *Ind* = Industry, and *t* = year, *Dummy_Year* is a dummy variable to account for year-fixed effects and *Dummy_Industry* is a dummy variable to account for industry-fixed effects. Industry defined by two-digit SIC code, and *t* = year.

Notes. All continuous variables are winsorized at the 1st and 99th percentiles. All missing values are replaced by zero.