

LEIGH McALISTER, RAJI SRINIVASAN, NIKET JINDAL, and ALBERT A. CANNELLA*

Advertising's influence on firm sales and firm value has drawn early attention from economists and accountants and more recent attention from marketers. Most studies that have investigated a link between advertising and sales have found such a link. However, studies that have investigated a link between advertising and firm value have only sometimes found that link. Meta-analysis has failed to determine moderators that govern the link between advertising and firm value. In this article, the authors hypothesize that advertising influences firm value for a differentiator because advertising can elaborate the firm's point of difference into brand equity, thereby building firm value. Advertising cannot build brand equity for a cost leader because such a firm has no point of difference on which to build. Identifying differentiators and cost leaders on the basis of firms' reactions to a change in accounting regulations, the authors confirm hypotheses: advertising is related to sales for all firms, but it is more strongly related to firm value for differentiators than for cost leaders. Beyond explaining differences in advertising effectiveness, this study's indicator of differentiation versus cost leadership should enhance future analyses of marketing's effect on firm-level outcomes using archival financial data.

Keywords: advertising, differentiation, cost leadership, sales, firm value

Advertising Effectiveness: The Moderating Effect of Firm Strategy

"CEOs and CFOs, spurred by global competition, recession and stock market pressure to deliver 'the numbers,' have shown an increasing tendency to question—and

cut—marketing budgets. . . . [T]hese reductions in marketing budgets have caught marketers' attention and strengthened the imperative to connect marketing spending to [its] financial impact on the firm" (Lehmann and Reibstein 2006, p. 3). Because of this industry imperative, the Marketing Science Institute has long made return on marketing spending a top research priority.

In this article, we focus on the link between financial outcomes and advertising expenditure, a key element of marketing spending. We note that there are at least two broad approaches for measuring advertising effectiveness (Lehmann and Reibstein 2006). One focuses on diagnostic marketing metrics (e.g., awareness, preference, customer satisfaction, loyalty) to fine-tune individual advertisements, and the other focuses on evaluative marketing metrics (e.g., sales, market share, profits, return on investment, cash flow, firm value). In this article, we focus on evaluative marketing metrics—in particular, sales and firm value—and consider the ways in which advertising might influence those metrics.

The link between advertising expenditure and sales has been consistently supported (e.g., Bagwell 2007; Hanssens 2009; Leone 1995; Lodish et al. 1995). However, there has

*Leigh McAlister is Professor and Ed and Molly Smith Chair in Business Administration, McCombs School of Business, University of Texas at Austin (e-mail: leigh.mcalister@mcombs.utexas.edu). Raji Srinivasan is Professor of Marketing, McCombs School of Business, University of Texas at Austin (e-mail: raji.srinivasan@mcombs.utexas.edu). Niket Jindal is Assistant Professor of Marketing, Kelley School of Business, Indiana University (e-mail: jindal@indiana.edu). Albert A. Cannella is W.P. Carey Chair in Management, Arizona State University (e-mail: albert.cannella@asu.edu). The authors thank Professors Susan Broniarczyk, Craig Crossland, Jim Frederickson, Robert Freeman, Andrew Gershoff, Ty Henderson, Szu-Chi Huang, Amit Joshi, Steve Kachelmeier, MinChung Kim, Bill Kinney, Praveen Kopalle, Mark Lang, Brent Lao, Natalie Mizik, Chris Moorman, Neil Morgan, Thomas Reutterer, Martin Schreier, Manohar Singh, Garrett Sonnier, Shuba Srinivasan, and Doug Vorhies, and the participants of the University of North Carolina Branding Conference; Marketing Meets Wall Street—Frankfurt; the Theory and Practice in Marketing Conference at Northwestern University; marketing research seminars at University of South Carolina, Case Western Reserve University, University of Washington, Boston College, and University of Texas at Austin; and an accounting research seminar at University of Texas at Austin. The authors thank the McCombs School of Business for research support. Ajay Kohli served as associate editor for this article.

been mixed evidence in support of a link between advertising expenditure and firm value. Conchar, Crask, and Zinkhan (2005) meta-analyze 88 estimated models that link advertising and firm value in 15 studies across the marketing, economics, and accounting literature. They found that, overall, the studies support a link between advertising and firm value. However, in 24% of the models, there was no evidence of such a link. Hirschey's (1982) review of the economics literature and Shah and Akbar's (2008) review of the accounting literature arrive at a similar conclusion: sometimes advertising is related to firm value, and sometimes it is not.

In their meta-analysis, Conchar, Crask, and Zinkhan (2005) do not identify managerially significant factors that govern the ability of advertising to influence firm value. They attribute their inability to identify such factors to the fact that for some of the studies in their meta-analysis, advertising expenditure was a control variable rather than the variable of theoretical interest. They therefore issued a call for research that identifies a richer set of factors that determine whether advertising will or will not influence firm value.

Responding to that call, in this study, we develop hypotheses that relate a firm's source of competitive advantage (differentiation vs. cost leadership) to the effectiveness of its advertising. We hypothesize that advertising is linked to sales for all firms. However, advertising should be more strongly linked to firm value for a differentiator than for a cost leader because that differentiator has a point of difference that advertising can elaborate into brand equity. To test the hypotheses, we develop an indicator of a firm's source of competitive advantage that can be inferred from the firm's advertising expenditure disclosure behavior.

This study's insights have implications for accounting regulators, managers, marketing researchers, marketing graduates, and writers of marketing textbooks. For accounting regulators who struggle with the question of whether advertising builds an asset (indicating that advertising expenditure should be capitalized) or merely increases sales (indicating that advertising expenditure should be expensed in the period it is incurred), this study suggests that differentiators should capitalize advertising expenditure, whereas cost leaders should expense it. The findings further suggest that managers in a cost leader firm should realize that no matter how capable their marketing team, the firm's advertising cannot build firm value in the way a differentiating firm's advertising builds firm value because a cost leader has no point of difference that can be elaborated into brand equity. For marketing scholars, this article points out that the majority of publicly traded firms are excluded from published studies of marketing's value relevance because those firms do not disclose their advertising expenditure. If a firm's marketing emphasis were represented by this study's indicator of differentiation versus cost leadership rather than by advertising expenditure, analyses could be broadened to include a more representative sample of publicly traded firms. Finally, because marketing's role is likely to be greater in firms that differentiate than in firms that are cost leaders, business school graduates who seek insight into the likely scope of the marketing career path in a particular firm should consider whether the firm is a differentiator or a cost leader, and the writers of marketing textbooks should more clearly discuss the implications of a firm's source of

competitive advantage for marketing challenges and opportunities in that firm.

In what follows, we develop hypotheses relating the effectiveness of a firm's advertising to that firm's source of competitive advantage (differentiation vs. cost leadership). We then present our proposed indicator of a firm's source of competitive advantage and give evidence consistent with that indicator being reliable and valid. We next test the hypotheses using our indicator, check the robustness of our findings, discuss the implications of this work and lay out further research questions to be explored.

THEORY AND HYPOTHESES

The management literature tells us that, at inception, a firm selects its strategy, and that strategy shapes the firm's organizational structure. The resulting structure prioritizes business functions that are central to the firm's selected strategy and assigns secondary roles to business functions that are less central (Hambrick and Mason 1984). Organizational structure is self-perpetuating, so a firm resists shifting its fundamental strategy partly because such a shift would imply a significant organizational realignment (Boeker 1989). Given the stability of a firm's strategy and the implications of strategy for the firm's pattern of resource allocation, it is not unreasonable to imagine that advertising done by a firm with one strategy might be more effective than advertising done by a firm with a different strategy.

To address the contention that a firm's strategy moderates the effectiveness of its advertising, we clarify the terms "firm strategy" and "advertising effectiveness." Regarding firm strategy, we note that management theorists summarize firms' strategies as belonging to a few categories. Miles and Snow (1978) develop those categories by crossing a firm's "source of competitive advantage" with its "aggressiveness." Porter (1980) develops his categories of firm strategy by crossing a firm's "source of competitive advantage" with its "degree of focus." In the marketing literature, Walker and Ruekert (1987) synthesize the two previous typologies by crossing a firm's "source of competitive advantage" with its "intensity of product/market development." In this study, we focus on the strategic dimension common to these typologies: a firm's source of competitive advantage.

The differentiator–cost leadership dichotomy is a widely accepted descriptor of strategic difference. This dichotomy is prominent in strategy research in management¹ and in marketing.² The differentiation–versus–cost leadership dichotomy is presented in most contemporary textbooks (Campbell-Hunt 2000) and, as mentioned previously, is fundamental to the three primary strategic typologies proposed in the management and marketing literatures (Miles and Snow 1978; Porter 1980; Walker and Ruekert 1987). Adding face validity, managers think about competitive advantage in terms of differentiation

¹The differentiator–cost leader dichotomy has been applied in shipping, banking, and hospital services; in Ireland, Portugal, Korea, and China; and in human-resource strategy, information technology, industrial engineering, manufacturing strategy, environmental scanning, planning processes, management selection, and managerial biases (Campbell-Hunt 2000, p. 128).

²Homburg, Workman, and Krohmer (1999); Slater and Olson (2001); Verhoef and Leeflang (2009); Vorhies, Morgan, and Autry (2009); Woodside, Sullivan, and Trappey (1999)—Marketing is more important in differentiators. Day, Nedungadi (1994)—Differentiation versus cost leadership shapes managers' mental representations of competition.

versus cost leadership (Day and Nedungadi 1994; Homburg, Workman, and Krohmer 1999). Consequently, in this article, we will contrast the effectiveness of advertising done by firms that draw competitive advantage from differentiation with that of firms that draw competitive advantage from cost leadership.

Regarding advertising effectiveness, our review of the marketing literature suggests that two important evaluative measures of advertising effectiveness are (1) advertising's ability to increase current sales (e.g., Lodish et al. 1995) and (2) advertising's ability to increase both current and expected future sales (e.g., Joshi and Hanssens 2010). Because the discounted sum of expected future cash flows is closely related to the discounted sum of expected future sales, the second meaning of "advertising effectiveness" could be restated as "advertising's ability to increase firm value."

We note that economists are divided on the question of whether advertising influences only current sales (advertising as information view) or whether it influences current and expected future sales (advertising as persuasion view). The first view, which holds that advertising informs (e.g., Ozga 1960; Stigler 1961; Telser 1964), suggests that advertising increases current sales because advertising increases awareness (i.e., consumers cannot buy a product if they don't know that it exists). The second view holds that it is advertising's job to persuade consumers. Proponents of this view (e.g., Bain 1956; Comanor and Wilson 1967; Robinson 1933) suggest that advertising can create brand loyalty, an intangible asset that influences sales in current and future periods; that is, advertising influences firm value as well as sales. Economists' empirical studies have produced conflicting findings across products and industries (Bagwell 2007).³ Sometimes advertising has been found to be associated with firm value; other times, it has not. Accountants, building from economists' two views of advertising to determine the appropriate accounting treatment for advertising expenditure,⁴ have also produced empirical studies with conflicting findings (for a review of these studies, see Shah and Akbar 2008).

The marketing literature implicitly takes the position that advertising "persuades." Since the early 1970s (e.g., Bass and Clarke 1972; Hanssens, Parsons, and Schultz 1990; Leone 1995), marketing scholars have focused on the ability of advertising to increase not only current sales but also future sales. More recently, advertising's ability to increase firm value has been offered as further evidence that advertising influences the firm's current and expected future sales (for a summary of these findings, see Srinivasan and Hanssens 2009). Joshi and Hanssens (2010) support that contention by showing that (1) advertising increases sales in the current period, and those incremental sales increase firm value, and (2) when advertising's current-sales effect on firm value is controlled for, advertising has an additional impact on firm value that can be attributed to investors' expectations that future sales will also increase.

³Advertising influences firm value for beer and cigarettes, but not automobiles (Peles 1971); for food, drugs, and cosmetics, but not tobacco, soap, and cleanser (Abdel-Khalik 1975); for the cigarette industry and some cigarette firms, but not other cigarette firms (Schmalensee 1972).

⁴The information view suggests that advertising impacts only current-period sales and should thus be expensed. The persuasion view suggests that advertising builds an asset and should therefore be capitalized, creating a brand asset on the balance sheet.

Most published marketing studies have provided evidence consistent with this "advertising persuades" position. However, we note that there are exceptions. Erickson and Jacobson (1992); Aaker and Jacobson (1994); and Tuli, Mukherjee, and Dekimpe (2012) fail to find an effect of advertising on firm value.

In summary, across the economics, accounting, and marketing literatures, we see evidence that sometimes, advertising merely informs consumers about product availability, thereby increasing current sales. Other times, advertising goes on to persuade consumers that the product is superior, thereby increasing both current sales and firm value. In this study, we examine when one should expect advertising to merely inform and when one can expect advertising to go further and also persuade. We are interested in the role that firm strategy—in particular, the firm's source of competitive advantage (differentiation vs. cost leadership)—plays in determining whether advertising merely increases current sales or whether it also increases firm value.

To explore the impact that strategy might have on firm value, we begin with what is known about differentiators and cost leaders. To produce products that uniquely meet a specific customer need, differentiators emphasize the exploration of customer needs, development of products/services that fit those needs, and communication of products' benefits to target customers (Hambrick 1983a; McDaniel and Kolari 1987; McKee, Varadarajan, and Pride 1989). The communication of those benefits, often through advertising, supports differentiators' development of intangible assets (brands, customer relationships, channel relationships) that enhance the firm's sales and stock returns (Srivastava, Shervani, and Fahey 1998). For cost leaders that produce acceptable, standard products, cost reduction is paramount. Such firms require aggressive construction of scale-efficient facilities; vigorous pursuit of cost reductions from experience; tight cost and overhead control; avoidance of marginal customer accounts; and cost minimization in areas like research and development, customer service, sales force, and advertising. With no point of difference other than price to communicate, a cost leader may see advertising as a cost that can be cut with little long-term performance penalty.

Building from the notion that advertising informs for all firms, we propose that advertising's impact on current sales is not moderated by firm strategy. A firm's advertising should increase current sales whether the firm derives competitive advantage from differentiation or cost leadership. In either case, advertising makes consumers aware that the advertised product is available and, through enhanced awareness, increases current sales.

H₁: Advertising is positively related to current sales for both firms that draw competitive advantage from differentiation and firms that draw competitive advantage from cost leadership.

To see why advertising's ability to increase firm value might be moderated by firm strategy, we build from economists' contention that persuasive advertising can develop brand loyalty. Both Aaker (1991) and Keller (2002) tell us that brand loyalty is built by communicating a brand's point of difference. Furthermore, Keller and Lehmann (2003) explain that such communication builds links between the brand and its point of

difference in consumers' memories. This network of strong, positive, and unique associations causes a consumer to be less price sensitive, more responsive to the brand's marketing efforts, and more receptive to the brand's extensions, thus increasing the brand's current sales and investors' expectations of the brand's future sales, thereby increasing firm value. Consequently, we expect that for a firm that draws competitive advantage from differentiation, advertising can increase firm value. For a firm that draws competitive advantage from cost leadership, however, there is no point of difference that advertising can elaborate into a network of strong, positive, and unique associations in consumers' memories, and so there is little brand equity. Thus, for such firms, advertising should have little influence on firm value.

H₂: Advertising's relationship with firm value is stronger for firms that draw competitive advantage from differentiation than for firms that draw competitive advantage from cost leadership.

In summary, we contend that advertising is effective for all firms because it increases sales. For those firms that derive competitive advantage from cost leadership, advertising increases current sales by creating awareness. For those firms that derive competitive advantage from differentiation, advertising increases current sales by creating awareness and increases firm value by developing a network of strong, positive, and unique associations that link the brand and its point of difference in consumers' memories.

PROPOSED INDICATOR OF A FIRM'S SOURCE OF COMPETITIVE ADVANTAGE

Although prior marketing studies have used survey-based indicators of a firm's source of competitive advantage (e.g., Homburg, Workman, and Krohmer 1999; Verhoef and Leeflang 2009), we seek a secondary data-based indicator to study advertising effectiveness across a large number of publicly listed firms for several years. To infer that a particular firm is a differentiator or a cost leader, we combine the insight that advertising is central to firm strategy for differentiators but not for cost leaders with information about advertising's strategic centrality for specific firms. If advertising is central to strategy for a firm, we infer that the firm is a differentiator. If advertising is not central to strategy for a firm, we infer that the firm is a cost leader.

We assert that advertising's strategic centrality for a firm (i.e., the importance of advertising for a firm) was revealed by the 1994 implementation of accounting regulation FRR44 (Securities and Exchange Commission 1994; for excerpts, see Appendix). That regulation was designed primarily to simplify financial filings for U.S. companies that had acquired a foreign business. However, as a tangentially related add-on, FRR44 also changed the conditions under which any publicly traded U.S. firm (not just U.S. firms that have acquired a foreign business) is required to disclose the level of its advertising expenditure. Before FRR44, advertising expenditure disclosure was required for any firm that advertised. Since FRR44, only those firms for which advertising is "material" are required to disclose advertising expenditure.

The concept of materiality comes to accounting from business law. Supreme Court case *TSC Industries, Inc. vs. Northway, Inc.* (426 U.S. 438 [1976]) established the existing judicial standard of materiality in securities litigation when it held that an item is material if there is "substantial likelihood that the disclosure of the omitted fact would have been viewed by the reasonable investor as having significantly altered the 'total mix' of information made available."

The Securities and Exchange Commission (1999, pp. 2–4) elaborates further: "Materiality concerns the significance of an item to users of a registrant's financial statements. A matter is 'material' if there is a substantial likelihood that a reasonable person would consider it important.... The FASB [Financial Accounting Standards Board] has long emphasized that materiality cannot be reduced to a numerical formula.... [M]agnitude by itself, without regard to the nature of the item and the circumstances in which the judgment has to be made, will not generally be a sufficient basis for a materiality judgment."

Given this, a firm that continued to disclose advertising expenditure after FRR44 is one for which advertising is "material," implying that advertising is important for that firm. Similarly, a firm that ceased to disclose advertising expenditure after FRR44 is one for which that expenditure is not material, implying that advertising is not important for that firm. Because we argue that advertising is important for differentiators but not for cost leaders, we propose that a firm's post-FRR44 advertising disclosure behavior is an indicator of that firm's source of competitive advantage. Firms that continued to disclose advertising after FRR44 are likely to be differentiators. Firms that cease to disclose advertising after FRR44 are likely to be cost leaders.⁵

In summary, we suggest that for those firms that advertise, post-FRR44 advertising disclosure behavior serves as an indicator of the firm's source of competitive advantage. In the remainder of this section, we provide evidence of the reliability and validity of this proposed indicator.

Reliability

We mentioned earlier that a firm sets its strategy—including the selection of its source of competitive advantage—at its inception. Organizational structure then develops to support that strategy. Because organizational structure is notoriously difficult to change, firm strategy is also difficult to change (Boeker 1989; Eisenhardt and Schoonhoven 1990). Given this, one should expect a firm's source of competitive advantage to be relatively stable through time.

A reliable indicator of this stable firm characteristic (source of competitive advantage) should produce consistent results from one measurement occasion to the next. In our context, this suggests that a firm's post-FRR44 advertising disclosure behavior should be stable from year to year. Consistent with this logic, considering 14,571 firms and 100,070 firm-year observations between 1996 and 2009, we note that 96% of the firm-year observations showed no change in advertising disclosure behavior in this

⁵A firm that is not a differentiator or a cost leader is "stuck in the middle" and doomed to fail (Porter 1985, pp. 16–17). Such firms will be misclassified in our data, adding noise and biasing against hypotheses.

14-year period. The year-to-year correlation of the indicator's value, across all firms, is very high, at .91 ($p < .001$). For 80% of the firms, the proposed indicator is unchanged over the period 1996–2009. A further 16% of the firms made a single change in advertising disclosure behavior in this period; 4% made more than one change.⁶ We take these data as evidence of the proposed indicator's reliability.

Convergent Validity

We consider two kinds of evidence for convergent validity: (1) "Realized strategy indicators," which have been used in the management literature to account for a firm's tendency toward differentiation versus cost leadership, and (2) the composition of a firm's top management team (TMT).

Management researchers have proposed "realized strategy indicators" (based on archival financial data) in order to include firm strategy in predictive models (Berman et al. 1999; Hambrick 1983b; Kotha and Nair 1995). Some of these indicators are expected to be high if the firm draws competitive advantage from differentiation (i.e., marketing intensity, selling intensity). Others are expected to be low if the firm draws competitive advantage from cost leadership (i.e., cost, capital expenditure, capital intensity).

As shown in Table 1, our proposed indicator of a firm's source of competitive advantage is consistent with these alternative indicators. In particular, those firms that our indicator classifies as differentiators have higher marketing intensity (i.e., scaled advertising expenditure) and higher selling intensity (i.e., scaled selling, general, and administrative expenditure) than firms the indicator classifies as cost leaders. Similarly, those firms our indicator classifies as cost leaders have lower costs (i.e., scaled cost of goods sold), lower capital expenditure (i.e., scaled capital expenditure), and lower asset intensity (i.e., scaled plant, property, and equipment) than firms the indicator classifies as differentiators. The consistency of our proposed indicator with these alternative strategy indicators provides evidence of convergent validity for our proposed indicator.

For further evidence of convergent validity, we consider the makeup of a firm's TMT and expect to find that marketing is more likely to be a part of the TMT if the firm draws competitive advantage from differentiation (Hambrick and Mason 1984; Nath and Mahajan 2008, 2011). Marketing is, almost by definition, critical for a firm that differentiates (Day and Nedungadi 1994; Homburg, Workman, and Krohmer 1999; Nath and Mahajan 2008, 2011; Verhoef and Leeflang 2009). Marketing scans markets and customers in search of differentiation opportunities. Marketing brings the voice of the customer to product development, ensuring that the evolving product concept meets the unique need identified in the market. Marketing manages pretest and test market research and ensures a match between unmet need and the product's point of difference. Marketing manages the new product rollout and then manages the resulting brand, built on the product's point of difference, through the brand's life cycle.

Thus, in a firm that differentiates, it is marketers who plan and measure customer mindset to track brand progress,

draft positioning statements to guide advertising agencies, and coordinate go-to-market plans with the sales function. In a firm that draws competitive advantage from cost leadership, on the other hand, marketing's role is more limited. Because a cost leader has standard products with little differentiation, there is much less need for market vigilance and little need for deep consumer insights. There is little, if any, need to bring the voice of the customer into product deliberations, for market testing or for mapping consumers' mindsets. Marketers in a cost leader help with tactical execution, monitor compliance with corporate trademark guidelines, coordinate the sharing of best practices across business units, etc. (Hyde, Landry, and Tipping 2004; Landry, Tipping, and Dixon 2005). In summary, marketing is more likely to be a part of the TMT in a firm that differentiates than in a firm that is a cost leader.

We explore this contention using ExecuComp data for S&P 500 companies from 1996 to 2009 to identify the functional affiliation of each TMT member according to job title (e.g., titles that include the term "marketing," "brand," "customer," or "advertising" are classified as "marketing"). We draw control variables (firm profit, leverage, and size; industry turbulence, growth, concentration, and percentage differentiators) from Compustat.

We model the dichotomous variable "Marketing on TMT" (1 = marketing on TMT; 0 = marketing not on TMT) as a function of the proposed indicator; "Differentiate_{*j*}" (1 = proposed indicator classifies firm *j* as a differentiator; 0 = proposed indicator classifies firm *j* as a cost leader); conventional control variables mentioned previously; and industry- and year-specific dummies. Consistent with recent longitudinal analyses of firms in marketing literature (Chiou and Tucker 2012; DeKinder and Kohli 2008; Lee 2011; Nath and Mahajan 2011), we use a generalized estimating equation (GEE) to estimate the parameters of the model (Liang and Zeger 1986; Zeger and Liang 1986; Zeger, Liang, and Albert 1988). We specify a binomial distribution with a probit link and assume a first-order autoregressive correlation structure. We estimate the model using Liang and Zeger's (1986) approach for estimating GEEs, which is an iteratively reweighted least squares procedure closely related to quasi-likelihood estimation. Although GEE estimates are robust to misspecifications of the correlation structure (Liang and Zeger 1986), we compute robust standard errors in order to appropriately evaluate the statistical significance of the coefficient estimates.

We report the estimated coefficients in column 2 of Table 2. The results show that, indeed, the coefficient of the proposed indicator is positive and significant (coefficient of Differentiate_{*j*} = .61, $p < .05$): firms classified as differentiators by the proposed indicator are more likely to have marketing on the TMT than are firms classified as cost leaders, providing evidence of the convergent validity of the proposed indicator of a firm's source of competitive advantage.

Discriminant Validity

Whereas we expect marketing's probability of TMT membership to be influenced by the firm's source of competitive advantage, we do not expect the probability of other functions' TMT membership to be so influenced. For example, engineering's membership on the TMT is more

⁶Both the 16% of firms that changed advertising disclosure behavior once and the 4% that changed multiple times did so because of acquisitions, divestitures, bankruptcies, and so on.

Table 1

AVERAGE VALUES OF “REALIZED STRATEGY INDICATORS” ARE CONSISTENT WITH ADVERTISING DISCLOSURE–BASED INDICATOR OF DIFFERENTIATION AND COST LEADERSHIP

Alternative Indicator: “Realized Strategy Indicator”	Source	Average Value of Alternative Indicator for Firms Classified as Differentiators (A)	Average Value of Alternative Indicator for Firms Classified as Cost Leaders (B)	Average for Firms Classified as Differentiators Minus Average for Firms Classified as Cost Leaders (A – B)	Expected Sign of A – B	p-Value for A – B
<i>Differentiation</i>						
Marketing intensity (Advertising expenditure/Assets)	H, K	.07	.03	.04	+	<.001
Selling intensity (Selling, general, and administrative expenses/Assets)	B	.48	.41	.06	+	<.001
<i>Cost Effectiveness</i>						
Cost (Cost of goods sold/ Assets)	B, K	.94	.76	.17	+	<.001
<i>Asset Parsimony</i>						
Capital expenditure (Capital expenditure/ Assets)	B, H, K	.07	.06	.01	+	<.001
Capital intensity (Net property, plant, and equipment value/Assets)	H	.31	.27	.03	+	<.001

Notes: B = Berman et al. (1999), H = Hambrick (1983b), K = Kotha and Nair (1995).

likely in a technical industry, whether the firm is a cost leader or a differentiator. Legal’s membership on the TMT is more likely in a highly regulated industry, whether the firm is a cost leader or a differentiator. Operations functions control costs for cost leaders, but they also deliver the point of difference in many differentiated service firms (e.g., Starbucks, Nordstrom, Ritz-Carlton). Finally, the risk associated with inaccurate public filings makes the inclusion of finance on the TMT virtually universal. In summary, we do not expect a firm’s source of competitive advantage to govern TMT membership for any function other than marketing, which provides an opportunity to consider the proposed indicator’s discriminant validity.

The last four columns of Table 2 address the question of the proposed indicator’s discriminant validity. Each of these four columns represents a model estimated as was the model in column 2. The columns are distinguished by the dependent variable being modeled. In column 3, the dependent variable reports whether the finance function is represented on the firm’s TMT. In a similar way, columns 4–6 represent models of TMT inclusion for the operations, engineering, and legal functions, respectively. In none of the last four columns is the coefficient of the proposed indicator (Differentiate_j) statistically significant. That is, the proposed indicator discriminates across business functions. It is a significant predictor of the presence of marketing on the TMT but not a significant predictor of the presence of finance, operations, engineering, or legal on the TMT.

Summary

In summary, we propose that a firm’s pre- and post-FRR44 advertising disclosure behavior is an indicator of the firm’s source of competitive advantage. A firm that

disclosed advertising pre-FRR44 but not post-FRR44 is classified as a cost leader. A firm that disclosed advertising both pre- and post-FRR44 is classified as a differentiator. As evidence of reliability, we have shown firms’ post-FRR44 advertising disclosure behaviors to be stable. As evidence of convergent validity, we have shown that our proposed indicator is consistent with indicators of differentiation and cost leadership from the management literature (i.e., “realized strategy measures”), and we have also shown that firms classified as differentiators are more likely than firms classified as cost leaders to have marketing on the TMT. Finally, because we do not expect other functions’ probability of TMT membership to depend on a firm’s source of competitive advantage, we take our demonstration that the proposed indicator is not a good predictor of TMT membership for any other business function as evidence of discriminant validity.

Given this indicator of a firm’s source of competitive advantage, in the next sections, we present the data and models we will use along with the indicator to test the hypotheses developed earlier in this article.

DATA, MEASURES, MODELS, AND TESTS OF HYPOTHESES

We estimate models using data on publicly traded U.S. firms from Compustat and the University of Chicago Booth School of Business’s Center for Research in Stock Prices. As noted earlier, we restrict analysis to those firms that spend on advertising (i.e., firms that disclosed advertising pre-FRR44) and use post-FRR44 advertising disclosure behavior to infer a firm’s source of competitive advantage.

We use data from 1990 to 1993 to estimate models of advertising’s effectiveness because it is only for the pre-FRR44 period that the level of advertising expenditure was

Table 2

EVIDENCE OF PROPOSED INDICATOR'S CONVERGENT AND DISCRIMINANT VALIDITY: INFLUENCE OF PREDICTOR VARIABLES ON A BUSINESS FUNCTION'S LIKELIHOOD OF MEMBERSHIP ON TMT (S&P 500 FIRMS, 1996–2009)

Dependent Variable	Evidence of Convergent Validity		Evidence of Discriminant Validity			
	Marketing on TMT	Finance on TMT	Operations on TMT	Engineering on TMT	Legal on TMT	
Differentiate	.61 (.28)*	-.33 (.19)	.08 (.19)	-.09 (.25)	-.23 (.19)	
Profit	.60 (.52)	-1.51 (.51)**	-.08 (.49)	-.30 (.61)	-.11 (.32)	
Leverage	-.46 (.32)	-1.01 (.32)**	.27 (.20)	-.42 (.35)	-.09 (.36)	
Firm Size	-.07 (.09)	-.00 (.07)	-.15 (.07)*	.19 (.09)*	-.02 (.06)	
Industry Turbulence	.49 (.44)	-.78 (.64)	.03 (.49)	-.54 (.56)	.13 (.51)	
Industry Growth Rate	.09 (.27)	-.04 (.31)	-.08 (.25)	.57 (.40)	-.38 (.21)	
Industry Concentration	.49 (.36)	-.61 (.34)	.21 (.33)	-.82 (.57)	-.38 (.21)	
% of Firms in Industry that Differentiate	.31 (.43)	.59 (.48)	.81 (.46)	-.55 (.64)	-.06 (.42)	
Constant	-1.83 (.40)***	.99 (.25)***	-1.32 (.27)***	-.64 (.38)	-.02 (.24)	
Goodness-of-fit (Wald χ^2)	46**	130***	114***	126***	34***	

* $p < .05$.

** $p < .01$.

*** $p < .001$.

Notes: Predictors in these models are structured like those defined for models reported in Table 5. Robust standard errors are in parentheses. Boldface indicates the coefficient estimates that directly address the question investigated in this table. For each of the estimated models, number of firm-year observations = 1,607 and number of firms = 146. Year dummies and industry dummies are included in all models.

disclosed by both differentiators and cost leaders. Following the precedent in this literature, we exclude firms from the financial industry⁷ and firm-year observations with missing data or negative revenues. We Winsorize all continuous variables at the 1% and 99% levels to reduce the impact of outliers.

Indicator of Differentiation Versus Cost Leadership

Because some firms implemented the FRR44 requirements in 1994 and others in 1995, we know that no firm had implemented the FRR44 requirements during the window 1990–1993 and that all firms had implemented the FRR44 requirements during the window 1996–2009. We classify as “differentiator” ($\text{Differentiate}_j = 1$ for firm j) a firm that is in Compustat at least one year between 1990 and 1993 and at least one year between 1996 and 2009 and that discloses its advertising expenditure every year it is in Compustat between 1990 and 1993 and between 1996 and 2009. We classify as “cost leader” ($\text{Differentiate}_j = 0$ for firm j) a firm that is in Compustat at least one year between 1990 and 1993 and at least one year between 1996 and 2009 and that discloses its advertising expenditure between 1990 and 1993 but does not disclose advertising in at least one year between 1996 and 2009.

Operationalization of Advertising

Guided by recent research (Reibstein and Wittink 2005; Steenkamp and Fang 2011), we represent a firm's advertising by that firm's “share of voice” (i.e., the firm's advertising expenditure divided by the sum of all advertising expenditure in the firm's industry). As Steenkamp and Fang (2011) argue, advertising expenditures differ dramatically across industries; consequently, relative measures for advertising are more comparable across industries than absolute measures. Furthermore, Reibstein and Wittink (2005, p. 8)

note that the use of advertising share of voice allows for insights that are more managerially relevant.

Finally, we note that representing advertising as share of voice is consistent with the way that consumers process advertisements (Sternthal and Lee 2005). An advertising message is first encoded in capacity-constrained, short-term memory. Factors governing the likelihood that the content will move to more permanent, long-term memory (where it can influence future purchase behavior) include message frequency, recency, and elaboration. That is, ad content that is viewed more frequently or more recently is more likely to influence future behavior. Similarly, ad content that is linked to other accessible and related bits of information about the brand in long-term memory is more likely to influence future behavior. A brand with higher advertising share of voice projects messages more frequently, thus creating more associations in long-term memory. Because of the brand's high message frequency, it is also likely that its messages will have been received more recently than the message of a competitor, further increasing the probability that the brand's message will be encoded in long-term memory. Finally, the accumulated brand associations in long-term memory, built by prior ads, increase the likelihood of elaboration for any new advertising message from the brand. Through this virtuous circle, the brand whose ads are viewed more frequently builds a stronger network of brand associations in long-term memory. The richer network of brand associations built by more frequent advertisements should make consumers less price sensitive and more responsive to the brand's marketing programs and brand extensions.

Models

To test the hypotheses, we consider two models of advertising effectiveness: advertising's ability to influence current-period sales and advertising's ability to influence firm value. For both current-period sales and firm value, we ask whether advertising's relationship with that variable is

⁷Consistent with precedent in finance research (e.g., Kayhan and Titman 2007) and accounting research (e.g., Desai, Rajgopal, and Venkatachalam 2004), financial services firms' federal regulation regimes make it inappropriate to include them in analysis of unregulated firms.

moderated by the firm's source of competitive advantage. In particular, Models 1 and 2 are as follows:

$$(1) \quad \ln(\text{Sales}_{jt}) = a_0 + a_1 \text{Adv}_{jt} + a_2 (\text{Adv}_{jt} \times \text{Differentiate}_{jt}) + a_3 \text{Differentiate}_{jt} + a_5 \text{Lev}_{jt} + a_6 \text{Size}_{jt} + a_7 \text{IndTurb}_{jt} + a_8 \text{IndGrow}_{jt} + a_9 \text{IndConc}_{jt} + a_{10} \text{IndDifferentiate}_{jt} + f_i + d_t + c_j + u_{jt} \text{ and}$$

$$(2) \quad \text{FirmValue}_{jt} = b_0 + b_1 \text{Adv}_{jt} + b_2 (\text{Adv}_{jt} \times \text{Differentiate}_{jt}) + b_3 \text{Differentiate}_{jt} + b_4 \text{Profit}_{jt} + b_5 \text{Lev}_{jt} + b_6 \text{Size}_{jt} + b_7 \text{IndTurb}_{jt} + b_8 \text{IndGrow}_{jt} + b_9 \text{IndConc}_{jt} + b_{10} \text{IndDifferentiate}_{jt} + f'_i + d_t + c'_j + u'_{jt},$$

where j indexes firm, i indexes four-digit Standard Industrial Classification (SIC) industry code, and t indexes year. Note that we propose the same set of control variables for the model of $\ln(\text{Sales}_{jt})$ and for the model of FirmValue_{jt} , with the exception of Profit_{jt} , because Profit_{jt} can sensibly be thought of as a predictor of FirmValue_{jt} , but makes little sense as a predictor of $\ln(\text{Sales}_{jt})$. Let the following definitions hold:

Sales_{jt} = Total sales (in billions of 1980 dollars) for firm j in year t .

$$\text{FirmValue}_{jt} = \text{Tobin's } Q_{jt} = \frac{\text{Market Value of Equity}_{jt} + \text{Preferred Stock}_{jt} + \text{Debt}_{jt}}{\text{Total Assets}_{jt}}$$

for firm j in year t . Following Chung and Pruitt (1994), a firm's market value of equity = share price $\times$ number of common shares outstanding; preferred stock = liquidating value of firm's preferred stock; and debt = (short-term liabilities – short-term assets) + long-term debt, where all quantities are measured at the end of year t .

$\text{Differentiate}_{jt}$ = 1 if firm j draws competitive advantage from differentiation (indicated if the firm views advertising as "material"); $\text{Differentiate}_{jt}$ = 0 if firm j draws competitive advantage from cost leadership (indicated if the firm does not view advertising as "material").

AE_{jt} = Firm j 's advertising expenditure in year t .⁸

Adv_{jt} = Firm j 's advertising share of voice in the industry indicated by its four-digit SIC code in year t

$$= \text{AE}_{jt} / \sum_{k \in j's \text{ industry}} \text{AE}_{kt}$$

EBITDA_{jt} = Firm j 's earnings before interest, taxes, depreciation, and amortization in year t .

Profit_{jt} = $\text{EBITDA}_{jt} / (\text{Firm } j's \text{ sales in year } t)$.

Lev_{jt} = Total long-term debt/total assets for firm j in year t .

Size_{jt} = Natural logarithm of total assets (in tens of billions of 1980 dollars) for firm j in year t .

IndTurb_{jt} = The standard error of τ 's estimated regression coefficient divided by industry sales average for years $t - 5$ to $t - 1$ (following Cannella, Park, and Lee [2008]), in a regression covering years t through τ (with $\tau = 1, 2, \dots, 5$) that has year $t - \tau$ sales for the industry indicated by a firm's four-digit SIC code as the dependent variable and τ as a predictor variable.

IndGrow_{jt} = τ 's estimated regression coefficient divided by industry sales average for years $t - 5$ to $t - 1$ (following Cannella, Park, and Lee 2008), in a regression covering years $t - \tau$ (with $\tau = 1, 2, \dots, 5$), which has year $t - \tau$ sales in the industry indicated by firm j 's four-digit SIC code as the dependent variable and τ as a predictor variable.

IndConc_{jt} = Herfindahl–Hirschman Index for the industry indicated by firm j 's four-digit SIC code in year t .

$\text{IndDifferentiate}_{jt}$ = In the industry indicated by firm j 's four-digit SIC code, percentage of firms that draw competitive advantage from differentiation in year t .

f_i and f'_i = Unobserved effect of the industry i indicated by a firm's four-digit SIC in the models of Sales_{jt} and FirmValue_{jt} , respectively.

d_t and d'_t = Unobserved effect of year t in the models of Sales_{jt} and FirmValue_{jt} , respectively.

c_j and c'_j = Unobserved effect of firm j in the models of Sales_{jt} and FirmValue_{jt} , respectively.

u_{jt} and u'_{jt} = Idiosyncratic error for firm j in year t in the models of Sales_{jt} and FirmValue_{jt} , respectively

To control for firm effects, we consider (1) firm size, to control for economies of scope and scale in models of sales and firm value (Panzar and Willig 1977); (2) profits, in the firm value model, because they affect cash flows, which are a key input to shareholder value (Connolly and Hirschey 2005); and (3) leverage, which should provide capital needed to grow sales and should, through signaling (Myers and Majluf 1984) and cost of capital (Harris and Raviv 1991), affect shareholder value.

To control for industry effects in models of sales and firm value, we include as predictors the turbulence (Haleblian and Finkelstein 1993) and growth rate (McDougall et al. 1994) of the industry indicated by firm j 's four-digit SIC code, which we expect to be positively related to firm value because the firm is likely to grow rapidly if the industry is growing rapidly. We include industry concentration (Hirschey and Weygandt 1985), which we expect will be positively related firm value because firms in concentrated industries have greater market power. Furthermore, because the central focus of our investigation is differentiation, we also control for the percentage of firms in the industry that draw competitive advantage from differentiation. We also include four-digit SIC code industry and year fixed effects and control for unobserved firm-specific effects.

Prior research has argued that some firms set their advertising budgets as a percentage of their sales (e.g., Bass 1969) because those firms' advertising expenditures are endogenous to their sales. A benefit of using the firm's advertising share of voice is that this measure is not endogenous to the firm's sales. Rather than being set a priori by a firm as a function of its sales, the firm's

⁸Compustat's "advertising and promotion" does not include price promotions because those discounts must be recorded as a reduction of revenue. Only payment-for-a-distinct-good promotions, like retailer-run co-op advertising, can be included in "advertising and promotion" (Pricewaterhouse Coopers 2010).

advertising share of voice is determined post hoc by the amount of money spent on advertising by other firms in the same industry. Since a firm's advertising share of voice is exogenous to its sales, we follow Rossi's (2014) guidance and do not use instrumental variables. (As a robustness check, we use an instrumental variable approach to assess the sensitivity of our results to this decision.)

We estimate Models 1 and 2 using GEEs specified with a normal distribution, identity link, and first-order autoregressive correlation structure. We compute robust standard errors to assess the significance of the estimated coefficients.

Tests of Hypotheses

H₁ suggests that in Model 1 (which takes as its baseline those firms that derive competitive advantage from cost leadership), there should be a significant positive coefficient for Adv_{jt} (H₁ includes no expectation about the sign or significance of the coefficient of the interaction $Adv_{jt} \times Differentiate_j$). Advertising share of voice should be associated with current-period sales for firms drawing competitive advantage from differentiation and for firms that draw competitive advantage from cost leadership.

H₂ suggests that in Model 2 (which also takes as its baseline those firms that derive competitive advantage from cost leadership), there should be a significant positive coefficient for the interaction $Adv_{jt} \times Differentiate_j$. Advertising share of voice should have a stronger relationship with firm value for firms drawing competitive advantage from differentiation than for firms drawing that draw advantage from cost leadership.

RESULTS

Table 3 profiles differentiators and cost leaders by reporting, for each group, the average value for each variable involved in model estimation. Table 4 provides descriptive statistics (medians and correlations) for all variables involved in the estimation of models.

We report Model 1's estimates of coefficients of predictors of current-period sales ($\ln(Sales_{jt})$) in column 2 of Table 5. We see that, consistent with H₁, the coefficient of Adv_{jt} is

positive and significant (coefficient = .47, $p < .001$). In addition, we note that the interaction $Adv_{jt} \times Differentiate_j$ (where $Differentiate_j$ is represented by our advertising materiality indicator) is not significant (coefficient = -.13, $p > .10$). There is a significant relationship between advertising share of voice and level of current sales for both firms that draw competitive advantage from differentiation and those that draw competitive advantage from cost leadership.

We report Model 1's estimates of coefficients of predictors of firm value ($FirmValue_{jt}$) in column 3 of Table 5. We see that, consistent with H₂, the interaction $Adv_{jt} \times Differentiate_j$ (where $Differentiate_j$ is represented by our advertising materiality indicator) is significant and positive (coefficient = .53, $p < .05$). Thus, the relationship between advertising share of voice and firm value is stronger for firms that draw competitive advantage from differentiation (i.e., firms for which advertising is "material") than for those that draw competitive advantage from cost leadership (i.e., firms for which advertising is not "material").

Beyond the hypotheses, we note that the results of main effects models (Table 5, columns 4 and 5) are consistent with differentiators being able to convert advertising share of voice into brand equity, resulting in differentiators having higher firm value than cost leaders (Table 5, column 5: coefficient of $Differentiate_j$ = .23, $p < .01$). Furthermore, these results are consistent with brand equity enhancing differentiators' sales (Table 5, column 4: coefficient of $Differentiate_j$ = .10, $p < .001$).

Control Variables

To see that control variables operate as one would expect according to prior literature, we first discuss the effects of control variables in the model of $\ln(Sales_{jt})$ (Table 5, column 2). We then discuss effects of control variables in the model of $FirmValue_{jt}$ (Table 5, column 3).

Control variables in sales model. With respect to firm characteristics, consistent with the concept of economies of scope and scale (Panzar and Willig 1977), $Size_{jt}$ (coefficient = .87, $p < .001$) is positively related to sales. With respect to

Table 3
COST LEADER AND DIFFERENTIATOR PROFILES: AVERAGE VARIABLE VALUES (1990–1993)

Quantity in Model	Definition of Quantity	Differentiators (Disclose Advertising Both Before and After FRR44)	Cost Leaders (Disclose Advertising Before but Not After FRR44)
Sales (in models)	$\ln(Sales_{jt})$	-2.03	-3.11
Sales (underlying measure)	$Sales_{jt}$ (1980 dollars)	\$1.28 billion	\$.43 billion
Firm value	$FirmValue_{jt}$ = Tobin's q_{jt}	1.42	1.30
Differentiation indicator	Equal to 1 if firm discloses advertising, 0 if firm does not disclose	1	0
Advertising	Firm's share of voice in industry advertising	.16	.12
Profit	EBITDA/Revenue	.10	.07
Leverage	Long-term debt/Total assets	.20	.19
Firm size (in models)	$\ln(Assets)$	-4.61	-5.45
Firm size (underlying measure)	Assets	\$1.43 billion	\$.53 billion
Industry turbulence	Extent to which industry growth is unpredictable	.04	.05
Industry growth	Industry revenue growth rate	.08	.10
Industry concentration	Herfindahl–Hirschman index	.24	.23
Industry differentiation	Within an industry, percentage of firms that disclose advertising	.22	.08
Number of firms		547	883
Number of observations		1,907	2,564

Table 4
DESCRIPTIVE STATISTICS: MEANS AND CORRELATIONS (1990–1993)

	<i>M</i>	<i>1</i>	<i>2^a</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>	<i>7</i>	<i>8</i>	<i>9</i>	<i>10</i>	<i>11</i>
1. $\ln(\text{Sales})$	-2.65	1										
2. FirmValue^a	1.35	-.05	1									
3. Differentiate	.43	.24	.04	1								
4. Adv	.14	.41	-.07	.10	1							
5. Profit	.09	.37	.01 ^b	.07	.12	1						
6. Lev	.20	.17	-.13	.04	.05	.07	1					
7. Size	-5.09	.96	-.10	.18	.40	.37	.20	1				
8. IndTurb	.04	-.10	-.04	-.06	.11	-.02 ^b	.00 ^b	-.10	1			
9. IndGrowth	.09	-.03	.08	-.06	-.07	.00 ^b	-.07	-.03 ^b	.14	1		
10. IndConc	.24	-.01 ^b	-.10	.01 ^b	.28	-.04	-.04	-.02 ^b	.26	.00 ^b	1	
11. $\text{IndDifferentiate}\%$	.14	.26	-.04	.51	-.01 ^b	.03 ^b	.06	.19	-.07	-.08	.07	1

^aCorrelations with FirmValue are built with only 3,670 observations because some firms are missing values for components of Tobin's q .

^bNot significant at $p < .05$.

Notes: Firm-year observations = 4,471; firms = 1,430. All correlations without a "b" note are significant at $p < .05$ or better.

industry characteristics, $\text{IndDifferentiate}\%_{jt}$ also has a positive association with sales (coefficient = .66, $p < .001$) suggesting higher sales for industries with more differentiators.

Control variables in firm value model. With respect to firm characteristics, consistent with Connolly and Hirschey (2005), Profit_{jt} is (marginally significantly) positively associated with intangible value (coefficient = .64, $p = .06$), and leverage is negatively associated with it (coefficient = -.76, $p < .001$). Consistent with the well-documented "size effect" in the finance literature (Schwert 1983), Size_{jt} (coefficient = -.14, $p < .001$) is negatively associated with firm value. With respect to industry characteristics, consistent with the intuition that more buoyant industries offer superior opportunities for firms to build firm value (McDougall et al. 1994), IndGrowth_{jt} (coefficient = .41, $p < .01$) is positively associated with firm value. Finally, inconsistent with expectations, IndConc_{jt} is negatively

associated with firm value (coefficient = -1.21, $p < .01$). (We note that other studies [e.g., Montgomery and Wernerfelt 1988] have also found that industry concentration is negatively related to Tobin's q , suggesting that the relationship between industry concentration and Tobin's q might be fruitfully explored in future studies.)

Robustness Checks

Although the analyses thus far provide evidence that is consistent with advertising effectiveness depending on the firm's source of competitive advantage (differentiation vs. cost leadership), that evidence is necessarily restricted to data from the early 1990s. It is only for the years before FRR44 (i.e., before 1994) that cost leaders disclosed the level of their advertising expenditure in public filings. To provide more current evidence related to our hypotheses, we perform robustness checks using data from 1996 to 2009.

Table 5
ADVERTISING INCREASES SALES FOR BOTH DIFFERENTIATORS AND COST LEADERS BUT INCREASES FIRM VALUE ONLY FOR DIFFERENTIATORS

	Tests of Hypotheses		Main Effects Analysis	
	DV: $\ln(\text{Sales}_{jt})$	DV: FirmValue_{jt}	DV: $\ln(\text{Sales}_{jt})$	DV: FirmValue_{jt}
Adv_{jt}	.47 (.07)***	-.23 (.21)	.41 (.06)***	.01 (.17)
$\text{Adv}_{jt} \times \text{Differentiate}_j$	-.13 (.09)	.53 (.27)*		
Differentiate_j	.11 (.03)***	.16 (.10)	.10 (.03)***	.23 (.08)**
Profit_{jt}		.64 (.33)		.64 (.33)
Lev_{jt}	.02 (.04)	-.76 (.15)***	.02 (.04)	-.77 (.15)***
Size_{jt}	.87 (.01)***	-.14 (.03)***	.87 (.01)***	-.14 (.03)***
IndTurb_{jt}	.07 (.07)	.30 (.32)	.07 (.07)	.30 (.32)
IndGrowth_{jt}	.02 (.04)	.41 (.14)**	.01 (.04)	.41 (.14)**
IndConc_{jt}	-.14 (.11)	-1.21 (.41)**	-.14 (.11)	-1.21 (.41)**
$\text{IndDifferentiate}\%_{jt}$	.66 (.17)***	-.42 (.60)	.62 (.17)***	-.23 (.58)
Constant	1.61 (.07)***	1.10 (.24)***	1.62 (.07)***	1.06 (.24)***
Year dummies	Yes	Yes	Yes	Yes
Industry dummies	Yes	Yes	Yes	Yes
Number of firms	1,430	1,240	1,430	1,240
Number of firm-year observations	4,471	3,670	4,471	3,670
Wald χ^2	82,193***	717***	81,026***	703***

* $p < .05$.

** $p < .01$.

*** $p < .001$.

Notes: DV = dependent variable. Robust standard errors are in parentheses. Data time frame is 1990–1993.

Given that recent public filing data contains advertising expenditure for differentiators but not for cost leaders, we approach our first set of robustness checks in two ways. First, we ask whether it continues to be the case that advertising share of voice is associated with both current sales and firm value for differentiators (i.e., those firms that disclose advertising expenditure for 1996–2009). Second, given that strategy guides a firm's advertising expenditure and is reasonably stable through time, we estimate a cost leader's 1996–2009 advertising expenditures on the basis of that cost leader's average level of advertising/sales for 1990–1993 and, with the 1996–2009 data so augmented, ask whether it continues to be the case that advertising share of voice is more strongly related to firm value for differentiators than for cost leaders.

For the first robustness analysis (just described), we restrict consideration to firms that differentiate, adapt Models 1 and 2 by dropping Differentiate_j and $\text{Adv}_{jt} \times \text{Differentiate}_j$, and estimate adapted Models 1 and 2 with data from 1996 to 2009. Consistent with our hypotheses, columns 2 and 3 of Table 6 indicate that for firms that differentiate, for the period 1996–2009, advertising share of voice continues to be related to sales (Table 6, column 2: coefficient of $\text{Adv}_{jt} = .21, p < .001$) and firm value (Table 6, column 3: coefficient of $\text{Adv}_{jt} = .43, p < .05$).

As the second component of this robustness check, we approximate cost leaders' 1996–2009 advertising expenditure on the basis of those firms' 1990–1993 advertising expenditures and estimate Models 1 and 2 using those expenditure approximations and data from 1996 to 2009. Consistent with our hypotheses, columns 4 and 5 of Table 6 indicate that for the period 1996–2009, advertising share of voice continues to be related to sales for both differentiators and cost leaders (Table 6, column 4: coefficient of $\text{Adv}_{jt} = .26, p < .001$) and advertising share of voice continues to be more strongly related to firm value for differentiators than for cost leaders (Table 6, column 5: coefficient of $\text{Adv}_{jt} \times \text{Differentiate}_j = .41, p < .05$).

In addition to showing that our hypotheses hold with more recent data, we consider two additional sets of robustness checks. Reverting back to the complete 1990–1993 data set (i.e., the data that contain reported advertising expenditure for cost leaders), we check whether the relationship between advertising share of voice and sales depends on the exclusion of profit as a predictor. Then, we check whether the relationship between advertising share of voice and market share (a dependent variable that is structurally more consistent with advertising share of voice) differs in nature from the relationship between advertising share of voice and sales.

We first adapt models used to test H_1 (Table 5, column 2) and the main effect analysis of $\ln(\text{Sales})$ (Table 5, column 4) by including Profit_{jt} as a predictor. Consistent with our hypotheses, columns 6 and 7 of Table 6 indicate that even when profit is included as a predictor, advertising share of voice continues to be related to sales for differentiators and cost leaders in the full model (Table 6, column 6: coefficient of $\text{Adv}_{jt} = .49, p < .001$) and in the main effects model (Table 6, column 7: coefficient of $\text{Adv}_{jt} = .45, p < .001$). When we replace dependent variable $\ln(\text{Sales}_{jt})$ with MarketShare_{jt} we find a significant relationship between advertising share of voice and market share in the full

model (Table 6, column 8: coefficient of $\text{Adv}_{jt} = .06, p < .01$) and in the main effects model (Table 6, column 9: coefficient of $\text{Adv}_{jt} = .07, p < .01$).

As a final robustness check, we consider the possibility that advertising share of voice might be endogenous with sales. We did not implement an instrumental variables approach for our primary analysis because Rossi (2014) cautions that “a convincing argument must be made that there is a first order endogeneity problem” before implementing an instrumental variables approach, and we are not aware of any convincing arguments for why a firm's advertising share of voice would be endogenous to its sales. Moreover, prior research has shown that a firm's advertising share of voice is exogenous to its performance (Steenkamp and Fang 2011). However, given the prevalence of instrumental variables approaches to address endogeneity, we first test for potential endogeneity using the Hausman–Wu test and then correct for potential endogeneity using the system generalized method of moments (GMM) method.

We use the Hausman–Wu test to test whether Adv_{jt} and $\text{Adv}_{jt} \times \text{Differentiate}_j$ are endogenous in the sales model (Equation 1). We follow recent studies and use the industry average advertising intensity lagged by one year (as well as its interaction with Differentiate_j) as instruments (Jindal and McAlister 2015; Tuli, Mukherjee, and Dekimpe 2012). We find that the Hausman–Wu test statistic is not significant ($\chi^2 = 1.85, p > .10$), indicating that advertising share of voice is not endogenous in the sales model.

Although the Hausman–Wu test indicates that endogeneity should not be a concern, we nonetheless check the sensitivity of our results to the use of instrumental variables. We use Arellano and Bover's (1995) system GMM approach, which has been adopted in recent marketing literature to address endogeneity concerns (e.g., Rego, Morgan, and Fornell 2013; Xiong and Bharadwaj 2014). The system GMM approach requires specifying the lagged dependent variable as a predictor; therefore, we modify the specification for the sales model (Equation 1) to include $\ln(\text{Sales}_{j,t-1})$ as a predictor. Because the system GMM approach uses the lagged values of the predictors in both levels and differences as instruments, we lose the first year of data. We find that the estimated coefficients for variables involved in hypotheses are consistent, in terms of both sign and significance, with our original findings (Table 5, column 1). We note, however, that the system GMM approach makes the strong assumption that the first-differenced instruments are not correlated with the unobserved firm effects, which seems highly unlikely in our model (e.g., a firm with superior management ability will likely have greater increases to profitability).⁹ Thus, our analyses do not provide evidence that there is an endogeneity problem. To summarize, the Hausman–Wu test identifies no endogeneity in the sales model and an instrumental variable re-estimation of the sales model does not alter the original findings.

⁹Although researchers often use Arellano and Bond's (1991) “difference GMM” approach to relax this assumption (e.g., Kumar et al. 2014; Shah, Kumar, and Kim 2014), that approach is not an option for models such as ours that have time-constant predictors.

Table 6
FINDINGS ARE ROBUST TO CHANGES IN ESTIMATION WINDOW, PREDICTORS, AND FORM OF DEPENDENT VARIABLE

	Testing Hypotheses with More Recent Data, Excluding Cost Leaders		Testing Hypotheses with More Recent Data, Value of Adv _{jt} Inferred for Cost Leaders		Including Profit as Predictor of ln(Sales)		Modeling Market Share Rather than Sales	
					Test of Hypothesis	Main Effects Analysis	Test of Hypothesis	Main Effects Analysis
	DV: ln(Sales _{jt})	DV: FirmValue _{jt}	DV: ln(Sales _{jt})	DV: FirmValue _{jt}	DV: ln(Sales _{jt})	DV: ln(Sales _{jt})	DV: MarketShare _{jt}	DV: MarketShare _{jt}
Data time frame	1996–2009	1996–2009	1996–2009	1996–2009	1990–1993	1990–1993	1990–1993	1990–1993
Types of firms in sample	Only differentiators	Only differentiators	Differentiators and cost leaders	Differentiators and cost leaders	Differentiators and cost leaders	Differentiators and cost leaders	Differentiators and cost leaders	Differentiators and cost leaders
Adv _{jt}	.21 (.03)***	.43 (.17)*	.26 (.06)***	.32 (.17)	.49 (.07)***	.45 (.06)***	.06 (.02)**	.07 (.03)**
Adv _{jt} × Differentiate _j			–.07 (.08)	.41 (.21)*	–.08 (.10)		.05 (.06)	
Differentiate _j			.40 (.06)***	.03 (.11)	.10 (.03)**	.09 (.03)**	.03 (.01)*	.04 (.01)***
Profit _{jt}		–.04 (.29)		.44 (.31)	.76 (.09)***	.76 (.09)***	.00 (.00)	.00 (.00)
Lev _{jt}	–.01 (.03)	.44 (.26)	–.12 (.03)***	–.09 (.23)	.03 (.04)	.03 (.04)	.00 (.00)	.00 (.00)
Size _{jt}	.49 (.01)***	–.46 (.05)***	.53 (.02)***	–.33 (.06)***	.83 (.01)***	.83 (.01)***	.00 (.00)	–.00 (.00)
IndTurb _{jt}	–.05 (.06)	.57 (.50)	.04 (.05)	–.20 (.27)	.05 (.07)	.04 (.07)	.01 (.01)	.01 (.01)
IndGrowth _{jt}	.04 (.03)	.07 (.24)	.04 (.03)	.27 (.16)	.02 (.03)	.02 (.03)	.00 (.01)	.00 (.01)
IndConc _{jt}	–.14 (.07)*	–1.36 (.40)***	–.16 (.06)**	–.29 (.30)	–.06 (.10)	–.07 (.10)	.04 (.03)	.04 (.03)
IndDifferentiate% _{jt}	.14 (.06)*	.00 (.43)	–.00 (.05)	.64 (.39)	.53 (.16)***	.51 (.16)**	.05 (.04)	.05 (.04)
Constant	–.43 (.08)***	.04 (.30)	–.18 (.12)	–.34 (.34)	1.32 (.08)***	1.32 (.08)***	.05 (.01)***	.03 (.01)
Year dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Number of firms	2,123	1,805	1,487	1,402	1,430	1,430	1,430	1,430
Number of firm-year observations	13,191	10,706	11,040	10,297	4,471	4,471	4,471	4,471
Wald χ^2	8,562***	789***	11,446***	645***	58,675***	57,938***	1,066***	844***

* $p < .05$.

** $p < .01$.

*** $p < .001$.

Notes: DV = dependent variable. Robust standard errors are in parentheses.

In summary, this battery of tests establishes the robustness of our findings. Results hold when models are estimated with more current data, when Profit_{jt} is added to the ln(Sales_{jt}) model, and when the sales model is adapted to include MarketShare_{jt} as the dependent variable. Finally, our assumption that advertising share of voice is not endogenous with sales is supported by a Hausman–Wu test that rejects endogeneity and by the fact that the inclusion of instrumental variables does not compromise findings.

GENERAL DISCUSSION

In 2016, worldwide advertising spending is expected to be near \$630 billion (McCarthy 2013). With so much money spent on advertising every year, managers place an understandable priority on determining the return for their advertising dollars. This article addresses that important problem by showing that a firm's fundamental business strategy moderates the effectiveness of its advertising. In particular, we hypothesize that advertising is related to sales for all firms but is more strongly related to firm value for differentiators than for cost leaders (because it is differentiation that allows advertising to create brand equity and intangible firm value).

To test these hypotheses, we first classified firms as drawing competitive advantage from either differentiation

or cost leadership, on the basis of on their advertising expenditure disclosure behavior after accounting regulation FRR44 in 1994. Firms that continued disclosing advertising expenditure after FRR44 (indicating that their advertising is important) are classified as differentiators. Firms that ceased disclosing advertising expenditure after FRR44 (indicating that their advertising is not important) are classified as cost leaders.

Using advertising materiality as an indicator of a firm's source of competitive advantage (differentiation vs. cost leadership), we modeled the relationship between advertising share of voice and sales and the relationship between advertising share of voice and firm value. We found, as hypothesized, that advertising share of voice is related to sales for both firms that our indicator classifies as differentiators and those that our indicator classifies as cost leaders. However, advertising share of voice is more strongly related to firm value for firms that our indicator classifies as differentiators than for those that our indicator classifies as cost leaders. Robustness checks provide evidence that these effects, estimated with 1990–1993 data, continue to hold with 1996–2009 data.

In addition to providing results consistent with advertising effectiveness being moderated by firm strategy, this study provides evidence that the proposed indicator of firm strategy is reliable and valid using evidence about indicator

stability, “realized strategy indicators” from firms’ financial statements, and TMT composition.

Furthermore, by developing a secondary data-based indicator of a firm’s source of competitive advantage, we extend the marketing literature, which has hitherto relied on primary, survey-based measures of differentiation (Homburg, Workman, and Krohmer 1999). We anticipate that this measure of a firm’s source of competitive advantage will be useful to marketing scholars in examining research questions that pertain to publicly listed firms.

We also note that our indicator gives no information about the source of competitive advantage for the 63% of firms that did not disclose advertising pre-FRR44. Although it is likely that many such firms are cost leaders, it is also likely that some of those firms differentiate but build their intangible, market-based assets through mechanisms other than advertising.¹⁰ (Business-to-business firms, such as Boeing, may develop intangible, market-based assets through their selling organizations, rather than through advertising. Similarly, technology firms, such as Cisco, might develop intangible, market-based assets based on research and development, rather than advertising.)

We conclude that researchers analyzing data from public financial reports need to be mindful of potential change in firms’ advertising disclosure behavior that might have resulted from FRR44. Studies restricted to firms that report advertising expenditure should account for sample differences pre- and post-1994. Studies that analyze advertising expenditure with post-1994 data (which covers only the less than 40% of publicly traded firms that disclose their expenditure) should acknowledge and account for the fact that their analysis includes only firms that draw competitive advantage from differentiation. Researchers who wish to study the impact of marketing with a more representative, post-1994 set of firms might drop advertising expenditure as a predictor and, instead, use the indicator developed in this study as a proxy for the marketing focus of differentiators.

Managerial Implications

This study’s findings have implications for financial regulators, who, in the American Institute of Certified Public Accountants’ (1993) Statement of Position 93-7, mandated that all advertising expenditure be expensed when incurred. Implicit in that mandate was the assumption that advertising’s impact is limited to the period in which the advertising is done, that is, that advertising does not build intangible assets whose influence will be felt for many periods to come. Regulators were probably influenced in their choice of this rather conservative accounting treatment by the conflicting results in the accounting literature. If it is the case, as we have argued, that (post-FRR44) a firm only discloses advertising if that firm’s advertising builds firm value, then it is exactly those firms that are currently obliged to disclose advertising expenditure that should be capitalizing that expenditure and adding the resulting asset to the firm’s balance sheet. We contend

that for firms that draw competitive advantage from differentiation, moving advertising from an income statement expense to a balance sheet asset would better represent a firm’s asset base. Such a move would reinforce C-suite executives’ view of advertising as the creator of intangible value that can be cut back only if the firm is willing to accept negative effects on its shareholder value.

The study’s findings also generate implications for marketing practice. First, the findings suggest that managers should realize that drawing competitive advantage from cost leadership, versus differentiation, has important implications for the effectiveness of a firm’s advertising. A differentiator’s accumulated brand equity will cause that firm to expect higher sales and higher firm value than that of an otherwise equivalent cost leader.

Second, the differentiator-versus-cost leader dichotomy might correspond to the dichotomous roles for the marketing function documented by Booz Allen Hamilton and the Association of National Advertisers. Through a series of studies (Hyde, Landry, and Tipping 2004; Landry, Tipping, and Dixon 2005; Landry, Tipping and Kumar 2006), they characterize marketing’s role as either “growth driver” or “advisor/service provider.” When the marketing function is the growth driver in a firm (which probably implies that the firm differentiates), these studies tell us that the marketing function is the typical career path to general management; marketing executives control budgets for brands, media, and innovation; and senior marketing executives partner with the chief executive officer to propel the firm’s growth agenda. When the marketing function is an advisor or service provider in the firm (which probably implies that the firm is a cost leader), marketing rarely has budget authority or oversight of strategy or product management and is more likely to be tasked with ensuring corporate trademark and brand guideline compliance or coordinating the sharing of best practices across business units. Understanding these differences in the role of marketing in firms that differentiate versus in firms that are cost leaders, and being able to make inferences about that role according to the firm’s advertising disclosure behavior, could be useful to candidates evaluating marketing job offers at different firms and to consultants who wish to target firms with a strong marketing emphasis.

Finally, we note that most marketing textbooks, when introducing the marketing career path, overlook the implications of a firm’s business strategy for that career path. The marketing function is frequently presented as the growth driver, with budgetary authority and a clear path to general management that one might expect in a firm that differentiates. If, in fact, marketing is cast in the role of growth driver only in that 40% of publicly traded firms that differentiate, some students may find themselves working at firms that are cost leaders, where marketing responsibilities and career opportunities of the marketing job they accept differ significantly from the responsibilities and career opportunities that their marketing textbooks led them to expect.

In the analysis of firms’ TMT makeup, we show that marketing’s influence is greater in differentiators than in cost leaders. This might explain why examples in marketing textbooks almost exclusively feature differentiating

¹⁰If a firm differentiated in one industry while cost-leading in another, it would incur policy and cultural spillovers that would cause the firm to be ineffective in both industries (Porter 1985, pp. 17–18).

firms. Although financial reporting requirements cause the finance function to be present on virtually all TMTs, the finance function plays a more robust managerial role in a cost leader (where finance's controls are key) than in a differentiator (where finance supports brand managers).

Limitations and Opportunities for Further Research

In this article, we build on prior literature when we assert that firms that differentiate are likely to have greater marketing emphasis than firms that are cost leaders. We add further evidence consistent with that assertion by showing that in firms identified as differentiators, the marketing function is more likely to be represented on the TMT. It would be useful to complement this financial archive evidence with in-depth interviews and surveys that could more directly link marketing emphasis to a firm's source of competitive advantage.

We offer the related suggestion that there might be firms that draw competitive advantage from differentiation but that build intangible assets through mechanisms other than advertising. If one could identify firms that do not disclose advertising expenditure but that are likely to have created substantial intangible, market-based assets through other means of differentiation, incorporation of that information, along with the proposed indicator of firm strategy, could broaden samples and enhance insights.

We note that most studies that relate advertising to sales have not been done with financial archive data. Furthermore, research into the short-term and long-term effects of advertising has almost universally considered advertising done by brands that differentiate. For example, Lodish et al. (1995) work with data from the files of a marketing research firm that serves differentiated firms that are actively managing differentiated brands; Joshi and Hanssens (2010) restrict analysis to highly differentiated firms (Apple, Compaq, Dell, HP, IBM, Nike, Reebok, K-Swiss, Skechers). Future studies should explore the contention underlying our research that advertising does not influence long-term sales for cost leaders.

In addition, research is needed to determine the appropriate operationalization of "advertising" in studies relating advertising to firm value. Some studies operationalize advertising as "intensity," scaling a firm's advertising expenditure by sales (Bharadwaj, Bharadwaj, and Konsynski 1999; Hirschey and Weygandt 1985; Morgan and Rego 2009), by assets (Hirschey 1982; Sougiannis 1994), by capital expenditure (Lustgarten and Thomadakis 1987), or by stockholder equity (Core et al. 2003). Other studies measure a firm's advertising by its unscaled level (Tsai 2001), the log of its unscaled level (Frieder and Subrahmanyam 2005; Joshi and Hanssens 2010; Mathur and Mathur 2000), accumulated advertising stock (Graham and Frankenberger 2000; Jindal and McAlister 2015; Osinga et al. 2011), unanticipated advertising (Aaker and Jacobson 1994; Erickson and Jacobson 1992; Osinga et al. 2011), or unanticipated advertising minus unanticipated sales (Kim and McAlister 2011). Steenkamp and Fang (2011) measure advertising with share of voice; Joshi and Hanssens (2010), Fosfuri and Giarratana (2009), and Simpson (2008) include the firm's own advertising expense and competitors' advertising expense as predictors,

accomplishing something very similar to using advertising share of voice as a predictor.

Finally, we note that our findings are limited by the nature of marketing expenditure data included in public financial statements. If one could acquire more detailed marketing expenditure data for a broad sample of firms, one could perform more nuanced analysis, including consideration of synergies across communication vehicles and/or across elements of the marketing mix.

In conclusion, we propose and validate an indicator of a firm's source of competitive advantage and then use that indicator to show that advertising share of voice is related to sales for both differentiators and cost leaders but that advertising share of voice is more strongly related to firm value for differentiators than for cost leaders. We hope this article stimulates further work relating marketing's role in the organization, a firm's source of competitive advantage, and moderators of advertising's ability to influence firm value.

APPENDIX: FRR44

Sections relevant to advertising disclosure are reported in detail; we have added italics to key passages. For other sections, we delete explanatory text and report section headings only. The full version of the release is available at <https://www.sec.gov/rules/final/dissuer.txt>.

SECURITIES AND EXCHANGE COMMISSION

17 CFR PARTS 210, 229 and 249

RELEASE NOS. 33-7118; 34-35094; IC-20766; FRR44
INTERNATIONAL SERIES NO. 758

FILE NO. S7-12-94

RIN 3235-AG17

FINANCIAL STATEMENTS OF SIGNIFICANT FOREIGN EQUITY INVESTEEs AND ACQUIRED FOREIGN BUSINESSES OF DOMESTIC ISSUERS AND FINANCIAL SCHEDULES

AGENCY: Securities and Exchange Commission.

ACTION: Final rules.

SUMMARY: The Commission is announcing the adoption of amendments to Regulation S-X, which governs the form and content of financial statements and schedules furnished by public companies in filings with the Commission, and Form 20-F, which is applicable to foreign private issuers. The amendments extend accommodations adopted recently with respect to financial statements of foreign issuers to filings by domestic issuers that are required to include financial statements of foreign equity investees or acquired foreign businesses. The accommodations relate to the age of financial statements and the reconciliation of financial statements to U.S. generally accepted accounting principles. In addition, the amendments revise the tests for determining whether financial statements of an equity investee must be provided, and they *eliminate the requirement to furnish certain supplemental financial schedules*.

I. INTRODUCTION

The Commission today is adopting several amendments that will extend financial statement accommodations available to foreign issuers to filings by domestic issuers that are required to include financial statements of foreign equity investees or acquired foreign businesses. The accommodations relate to the age of financial statements and the reconciliation of financial

statements to U.S. generally accepted accounting principles ("GAAP") for those foreign entities. In addition, the adopted amendments revise the tests of significance for determining whether financial statements of an equity investee must be provided. The amendments also eliminate certain supplemental financial schedules that were eliminated recently for foreign issuers, as well as *eliminate two additional schedules that foreign and domestic issuers have been required to include in annual reports and registration statements filed with the Commission.*

The amendments adopted today were proposed by the Commission on April 19, 1994. Comment letters received from registrants, accounting firms, and related professional membership associations generally supported the proposals and frequently commented that the *schedules were generally redundant to information already required in the financial statements and that the costs of preparing the schedules therefore outweighed the benefit.* Comments by financial analysts were critical of the proposed amendments, expressing a general concern about a perceived relaxation of disclosure requirements. The Commission believes concerns regarding the revised requirements do not consider fully the offsetting effects of other disclosure requirements that must be met by reporting companies. The amendments are being adopted substantially as proposed because the Commission believes they will *result in reduced costs of registration and reporting by public companies without loss of material basic disclosure for the protection of investors.*

II. FINANCIAL STATEMENTS OF SIGNIFICANT BUSINESS ACQUISITIONS AND EQUITY INVESTEES

- A. Tests of Significance of Equity Investees
- B. Reconciliation of Financial Statements of Significant Foreign Equity Investees and Foreign Acquirees
- C. Age of Financial Statements of Significant Foreign Equity Investees or Foreign Acquirees

III. STREAMLINING OF REQUIRED FINANCIAL STATEMENT SCHEDULES

The amendments adopted today eliminate the following six schedules that had previously been eliminated for foreign private issuers:

- (1) Rule 12-02 - Marketable Securities - Other Investments including Schedule XIII
- (2) Rule 12-03 - Amounts Receivable from Related Parties and Underwriters, Promoters and Employees Other Than Related Parties
- (3) Rule 12-05 - Indebtedness of and to Related Parties - Not Current.
- (4) Rule 12-06 - Property, Plant and Equipment
- (5) Rule 12-07 - Accumulated Depreciation, Depletion
- (6) Rule 12-08 - Guarantees of Securities of Other Issuers

Two additional schedules previously required for both foreign and domestic issuers also will be eliminated:

- (1) Rule 12-10 - Short-term Borrowings
- (2) Rule 12-11 - Supplementary Income Statement Information
 - A. Schedules Previously Eliminated from Foreign Issuer Filings

1. Marketable securities - other investments
2. Amounts receivable from related parties and underwriters, promoters and employees other than related parties and indebtedness of and to related parties
3. Property, plant, and equipment, and accumulated depreciation, depletion, and amortization
4. Guarantees of securities of other issuers
- B. Additional Schedules Eliminated for both Foreign and Domestic Issuers
 1. Short term borrowings
 2. Supplementary income statement information

The Commission has eliminated this schedule by today's amendments. While the amounts of the *items formerly referenced by this schedule* (maintenance and repairs; depreciation and amortization of the cost of intangible assets, preoperating costs and similar deferred costs; taxes other than payroll; royalties; and *advertising costs*) *need not be disclosed on an ongoing basis by registrants, discussion of discretionary expenses and other items in the schedule, quantified to the extent practicable, will be required in the company's Management's Discussion and Analysis where necessary to explain material trends and uncertainties that affected operating results, liquidity or financial condition of the registrant, or that may be reasonably likely to affect future results, liquidity or financial condition.*

IV. COST-BENEFIT ANALYSIS

Several registrants provided quantified estimates of the cost reductions which would vary from registrant to registrant. All of the registrants and accounting firms that addressed the cost-benefit of the amendments indicated that the cost of preparation and audit of the schedules and other information that have been eliminated today exceeded their benefit. Several financial analysts indicated that they thought that the actual costs of providing this information is small, and that the benefits exceeded such costs. They suggested that the reduced disclosures could lead to an increase in the costs of capital due to an increase in investor uncertainty. For reasons discussed above, the Commission believes that the adoption of these rules will reduce the regulatory burden and costs of the vast majority of the registrants without a loss of information that is necessary for investor protection.

V. AVAILABILITY OF FINAL REGULATORY FLEXIBILITY ANALYSIS

VI. STATUTORY BASIS FOR RULES

VII. EFFECTIVE DATE

TEXT OF AMENDMENTS

REFERENCES

- Aaker, David A. (1991), *Managing Brand Equity: Capitalizing on the Value of a Brand Name*. New York: The Free Press.
- and Robert Jacobson (1994), "The Financial Information Content of Perceived Quality," *Journal of Marketing Research*, 31 (May), 191-201.
- Abdel-Khalik, A. Rashad (1975), "Advertising Effectiveness and Accounting Policy," *Accounting Review*, 50 (October), 657-70.
- American Institute of Certified Public Accountants (1993), "Reporting on Advertising Costs," Statement of Position 93-7,

- [available at <http://clio.lib.olemiss.edu/cdm/ref/collection/aicpa/id/2029>].
- Arellano, Manuel and Stephen Bond (1991), "Some Tests of Specification for Panel Data: Monte Carlo Evidence and an Application to Employment Equations," *Review of Economic Studies*, 58 (2), 277–97.
- and Olympia Bover (1995), "Another Look at the Instrumental Variable Estimation of Error-Components Models," *Journal of Econometrics*, 68 (1), 29–51.
- Bagwell, Kyle (2007), "The Economic Analysis of Advertising," in *Handbook of Industrial Organization*, Vol. 3, Mark Armstrong and Rob Porter, eds. Amsterdam: North-Holland, 1701–844.
- Bain, Joe S. (1956), *Barriers to New Competition: Their Character and Consequences in Manufacturing Industries*. Cambridge, MA: Harvard University Press.
- Bass, Frank M. (1969), "A New Product Growth for Model Consumer Durables," *Management Science*, 15 (5), 215–27.
- and Darrel G. Clarke (1972), "Testing Distributed Lag Models of Advertising Effects," *Journal of Marketing Research*, 9 (August), 298–308.
- Berman, Shawn L., Andrew C. Wicks, Suresh Kotha, and Thomas M. Jones (1999), "Does Stakeholder Orientation Matter? The Relationship Between Stakeholder Management Models and Firm Financial Performance," *Academy of Management Journal*, 42 (5), 488–506.
- Bharadwaj, Anandhi S., Sundar G. Bharadwaj, and Benn R. Konsynski (1999), "Information Technology Effects on Firm Performance as Measured By Tobin's Q," *Management Science*, 45 (7), 1008–24.
- Boeker, Warren (1989), "Strategic Change: The Effects of Founding and History," *Academy of Management Journal*, 32 (3), 489–515.
- Campbell-Hunt, Colin (2000), "What Have We Learned About Generic Competitive Strategy? A Meta-Analysis," *Strategic Management Journal*, 21 (2), 127–54.
- Cannella, Albert A. Jr., Jong-Hun Park, and Ho-Uk Lee (2008), "Top Management Team Functional Background Diversity and Firm Performance: Examining the Roles of Team Members Colocation and Environmental Uncertainty," *Academy of Management Journal*, 51 (4), 768–84.
- Chiou, Lesley and Catherine Tucker (2012), "How Does the Use of Trademarks by Third-Party Sellers Affect Online Search?" *Marketing Science*, 31 (5), 819–37.
- Chung, Kee H. and Stephen W. Pruitt (1994), "A Simple Approximation of Tobin's q," *Financial Management*, 23 (Autumn), 70–74.
- Comanor, William S. and Thomas A. Wilson (1967), "Advertising, Market Structure, and Performance," *Review of Economics and Statistics*, 49 (4), 423–40.
- Conchar, Margy P., Melvin R. Crask, and George M. Zinkhan (2005), "Market Valuation Models of the Effect of Advertising and Promotional Spending: A Review and Meta-Analysis," *Journal of the Academy of Marketing Science*, 33 (4), 445–60.
- Connolly, Robert A. and Mark Hirschey (2005), "Firm Size and the Effect of R&D on Tobin's q," *R&D Management*, 35 (2), 217–23.
- Core, John E., Wayne R. Guay, and Andrew Van Buskirk (2003), "Market Valuations in the New Economy: An Investigation of What Has Changed," *Journal of Accounting and Economics*, 34 (January), 43–67.
- Day, George S. and Prakash Nedungadi (1994), "Managerial Representations of Competitive Advantage," *Journal of Marketing*, 58 (April), 31–44.
- DeKinder, Jade S. and Ajay K. Kohli (2008), "Flow Signals: How Patterns over Time Affect the Acceptance of Start-Up Firms," *Journal of Marketing*, 72 (September), 84–97.
- Desai, Hemang, Shivaram Rajgopal, and Mohan Venkatachalam (2004), "Value-Glamour and Accruals Mispricing: One Anomaly or Two?" *Accounting Review*, 79 (2), 355–85.
- Eisenhardt, Kathleen M. and Claudia Bird Schoonhoven (1990), "Organizational Growth: Linking Founding Team, Strategy, Environment, and Growth Among U.S. Semiconductor Ventures, 1978–1988," *Administrative Science Quarterly*, 35 (3), 504–29.
- Erickson, Gary and Robert Jacobson (1992), "Gaining Comparative Advantage Through Discretionary Expenditures: The Returns to R&D and Advertising," *Management Science*, 38 (9), 1264–79.
- Fosfuri, Andrea and Marco S. Giarratana (2009), "Masters of War: Rivals' Product Innovation and New Advertising in Mature Product Markets," *Management Science*, 55 (2), 181–91.
- Frieder, Laura and Avanidhar Subrahmanyam (2005), "Brand Perceptions and the Market for Common Stock," *Journal of Financial and Quantitative Analysis*, 40 (1), 57–85.
- Graham, Roger C., Jr., and Kristina D. Frankenberger (2000), "The Contribution of Changes in Advertising Expenditures to Earnings and Market Values," *Journal of Business Research*, 50 (2), 149–55.
- Haleblian, Jerayr and Sydney Finkelstein (1993), "Top Management Team Size, CEO Dominance, and Firm Performance: The Moderating Roles of Environmental Turbulence and Discretion," *Academy of Management Journal*, 36 (4), 844–63.
- Hambrick, Donald C. (1983a), "Some Tests of the Effectiveness and Functional Attributes of Miles and Snow's Strategic Types," *Academy of Management Journal*, 26 (1), 5–26.
- (1983b), "High Profit Strategies in Mature Capital Goods Industries: A Contingency Approach," *Academy of Management Journal*, 26 (4), 687–707.
- and Phyllis A. Mason (1984), "Upper Echelons: The Organization as a Reflection of Its Top Managers," *Academy of Management Review*, 9 (2), 193–206.
- Hanssens, Dominique M. (2009), *Empirical Generalizations About Marketing Impact*. Cambridge, MA: Marketing Science Institute.
- , Leonard J. Parsons, and Randal L. Schultz (1990), *Market Response Models: Econometric and Time Series Analysis*. Boston: Kluwer Academic Publishers.
- Harris, Milton and Artur Raviv (1991), "The Theory of Capital Structure," *Journal of Finance*, 46 (1), 321–49.
- Hirschey, Mark (1982), "Intangible Capital Aspects of Advertising and R&D Expenditures," *Journal of Industrial Economics*, 30 (4), 375–90.
- and Jerry J. Weygandt (1985), "Amortization Policy for Advertising and Research and Development Expenditures," *Journal of Accounting Research*, 23 (1), 326–35.
- Homburg, Christian, John P. Workman Jr., and Harley Krohmer (1999), "Marketing's Influence Within the Firm," *Journal of Marketing*, 63 (April), 1–17.
- Hyde, Paul, Edward Landry, and Andrew Tipping (2004), "Making the Perfect Marketer," *Strategy + Business*, 37 [available at <http://www.strategy-business.com/article/04405?gko=4cadc>].
- Jindal, Niket and Leigh McAlister (2015), "The Impacts of Advertising Assets and R&D Assets on Reducing Bankruptcy Risk," *Marketing Science*, 34 (4), 555–72.
- Joshi, Amit and Dominique M. Hanssens (2010), "The Direct and Indirect Effects of Advertising Spending on Firm Value," *Journal of Marketing*, 74 (January), 20–33.
- Kayhan, Ayla and Sheridan Titman (2007), "Firms' Histories and Their Capital Structures," *Journal of Financial Economics*, 83 (1), 1–32.
- Keller, Kevin Lane (2002), *Strategic Brand Management: Building, Measuring, and Managing Brand Equity*. Englewood Cliffs, NJ: Prentice Hall.

- and Donald R. Lehmann (2003), "How Do Brands Create Value?" *Marketing Management* 12 (3), 26–31.
- Kim, MinChung and Leigh McAlister (2011), "Stock Market Reaction to Unexpected Growth in Marketing Expenditure: Negative for Sales Force, Contingent on Spending Level for Advertising," *Journal of Marketing*, 75 (July), 68–85.
- Kotha, Suresh and Anil Nair (1995), "Strategy and Environment as Determinants of Performance: Evidence from the Japanese Machine Tool Industry," *Strategic Management Journal*, 16 (7), 497–518.
- Kumar, V., Nita Umashankar, Kihyun Hannah Kim, and Yashoda Bhagwat (2014), "Assessing the Influence of Economic and Customer Experience Factors on Service Purchase Behaviors," *Marketing Science*, 33 (5), 673–92.
- Landry, Edward, Andrew Tipping, and Brodie Dixon (2005), "Six Types of Marketing Organizations: Where Do You Fit In?," *Strategy + Business*, (October 11), [available at <http://www.strategy-business.com/article/rr00025?gko=489ba>].
- , ———, and Jay Kumar (2006), "Growth Champions," *Strategy + Business*, 43, [available at <http://www.strategy-business.com/article/06206>].
- Lee, Jongkuk (2011), "The Alignment of Contract Terms for Knowledge-Creating and Knowledge-Appropriating Relationship Portfolios," *Journal of Marketing*, 75 (July), 110–27.
- Lehmann, Donald R. and David J. Reibstein (2006), *Marketing Metrics and Financial Performance*. Cambridge, MA: Marketing Science Institute.
- Leone, Robert (1995), "Generalizing What Is Known About Temporal Aggregation and Advertising Carryover," *Marketing Science*, 14 (3), G141–50.
- Liang, Kung-Yee and Scott L. Zeger (1986), "Longitudinal Data Analysis Using Generalized Linear Models," *Biometrika*, 73 (1), 13–22.
- Lodish, Leonard M., Magid Abraham, Stuart Kalmenson, Jeanne Livelsberger, Beth Lubetkin, Bruce Richardson, et al. (1995), "How T.V. Advertising Works: A Meta-Analysis of 389 Real World Split Cable T.V. Advertising Experiments," *Journal of Marketing Research*, 32 (May), 125–39.
- Lustgarten, Steven and Stavros Thomadakis (1987), "Mobility Barriers and Tobin's q," *Journal of Business*, 60 (4), 519–37.
- Mathur, Lynette Knowles and Ike Mathur (2000), "An Analysis of the Wealth Effects of Green Marketing Strategies," *Journal of Business Research*, 50 (2), 193–200.
- McCarthy, Alison (2013), "Worldwide Ad Spending Forecast: Emerging Markets, Mobile Provide Opportunities for Growth," SlideShare.net (January), [available at <http://www.slideshare.net/catchadigital/emarketer-worldwideadspendingforecast>].
- McDaniel, Stephen W. and James Kolari (1987), "Marketing Strategy Implications of the Miles and Snow Strategic Typology," *Journal of Marketing*, 51 (October), 19–30.
- McDougall, Patricia P., Jeffrey G. Covin, Richard B. Robinson, and Lanny Herron (1994), "The Effects of Industry Growth and Strategic Breadth on New Venture Performance and Strategy Content," *Strategic Management Journal*, 15 (7), 537–54.
- McKee, Daryl O., P. Rajan Varadarajan, and William M. Pride (1989), "Strategic Adaptability and Firm Performance: A Market-Contingent Perspective," *Journal of Marketing*, 53 (July), 21–35.
- Miles, Raymond E. and Charles C. Snow (1978), *Organizational Strategy, Structure, and Process*. New York: McGraw-Hill.
- Montgomery, Cynthia and Birger Wernerfelt (1988), "Diversification, Ricardian Rents, and Tobin's q," *Rand Journal of Economics*, 19 (Winter), 623–32.
- Morgan, Neil A. and Lopo Rego (2009), "Brand Portfolio Strategy and Firm Performance," *Journal of Marketing*, 73 (January), 59–74.
- Myers, Stewart C. and Nicholas S. Majluf (1984), "Corporate Financing and Investment Decisions When Firms Have Information That Investors Do Not Have," *Journal of Financial Economics*, 13 (2), 187–221.
- Nath, Pravin and Vijay Mahajan (2008), "Chief Marketing Officers: A Study of Their Presence in Firms' Top Management Teams," *Journal of Marketing*, 72 (January), 65–81.
- and ——— (2011), "Marketing in the C-Suite: A Study of Chief Marketing Officer Power in Firms' Top Management Teams," *Journal of Marketing*, 75 (January), 60–77.
- Osinga, Ernst C., Peter S.H. Leeftang, Shuba Srinivasan, and Jaap E. Wieringa (2011), "Why Do Firms Invest in Consumer Advertising with Limited Sales Response? A Shareholder Perspective," *Journal of Marketing*, 75 (January), 109–24.
- Ozga, S.A. (1960), "Imperfect Markets Through Lack of Knowledge," *Quarterly Journal of Economics*, 74 (1), 29–52.
- Panzar, John C. and Robert D. Willig (1977), "Economies of Scale in Multi-Output Production," *Quarterly Journal of Economics*, 91 (3), 481–93.
- Peles, Yoram (1971), "Rates of Amortization of Advertising Expenditures," *Journal of Political Economy*, 79 (September/October), 1032–58.
- Porter, Michael E. (1980), *Competitive Strategy*. New York: Free Press.
- (1985), *Competitive Advantage*. New York: Free Press.
- Price Waterhouse Coopers (2010), "Practical Guide to IFRS: Retail and Consumer Industry Supplement—July 2010," (accessed February 16, 2016), [available at <http://www.pwc.dk/da/ifrs/assets/retail-consumer.pdf>].
- Rego, Lopo, Neil A. Morgan and Claes Fornell (2013), "Reexamining the Market Share–Customer Satisfaction Relationship," *Journal of Marketing*, 77 (September), 1–20.
- Reibstein, David J. and Dick R. Wittink (2005), "Competitive Responsiveness," *Marketing Science*, 24 (1), 8–11.
- Robinson, Joan (1933), *Economics of Imperfect Competition*. London: MacMillan.
- Rossi, Peter (2014), "Even the Rich Can Make Themselves Poor: A Critical Examination of the Use of IV Methods in Marketing," *Marketing Science*, 33 (5), 655–72.
- Schmalensee, Richard (1972), *The Economics of Advertising*. Amsterdam: North-Holland.
- Schwert, G. William (1983), "Size and Stock Returns, and Other Empirical Regularities," *Journal of Financial Economics*, 12 (1), 3–12.
- Securities and Exchange Commission (1994), "Financial Statements of Significant Foreign Equity Investees and Acquired Foreign Businesses of Domestic Issuers and Financial Schedules," Release No. 33-7119, File No. S7-12-94, [available at <https://www.sec.gov/rules/final/dissuer.txt>].
- Securities and Exchange Commission (1999), "Materiality," SEC Staff Accounting Bulletin No. 99, [available at <https://www.sec.gov/interp/account/sab99.html>].
- Shah, Dinesh, V. Kumar, and Kihyun Hannah Kim (2014), "Managing Customer Profits: The Power of Habits," *Journal of Marketing Research*, 51 (December), 726–41.
- Shah, Syed Zulfiqar Ali and Saeed Akbar (2008), "Value Relevance of Advertising Expenditure: A Review of the Literature," *International Journal of Management Reviews*, 10 (4), 301–25.
- Simpson, Ana (2008), "Voluntary Disclosure of Advertising Expenditures," *Journal of Accounting, Auditing & Finance*, 23 (3), 403–36.
- Slater, Stanley F. and Eric M. Olson (2001), "Marketing's Contribution to the Implementation of Business Strategy: An Empirical Analysis," *Strategic Management Journal*, 22 (11), 1055–67.

- Sougiannis, Theodore (1994), "The Accounting Based Valuation of Corporate R&D," *Accounting Review*, 69 (1), 44–68.
- Srinivasan, Shuba and Dominique M. Hanssens (2009), "Marketing and Firm Value: Metrics, Methods, Findings and Future Directions," *Journal of Marketing Research*, 46 (June), 293–312.
- Srivastava, Rajendra K., Tassadduq A. Shervani, and Liam Fahey (1998), "Market-Based Assets and Shareholder Value: A Framework for Analysis," *Journal of Marketing*, 62 (January), 2–18.
- Steenkamp, Jan-Benedict E.M. and Eric Fang (2011), "The Impact of Economic Contractions on the Effectiveness of R&D and Advertising: Evidence from U.S. Companies Spanning Three Decades," *Marketing Science*, 30 (July/August), 628–45.
- Sternthal, Brian and Angela Lee (2005), "Building Brands Through Effective Advertising," in *Kellogg on Branding*, Alice M. Tybout and Tim Calkins, eds. Hoboken, NJ: John Wiley & Sons, 129–49.
- Stigler, George J. (1961), "The Economics of Information," *Journal of Political Economy*, 69 (3), 213–25.
- Telser, Lester G. (1964), "Advertising and Competition," *Journal of Political Economy*, 72 (6), 537–62.
- Tsai, Shih-Chuan (2001), "Valuation of R&D and Advertising Expenditures," *Journal Of Contemporary Accounting*, 2 (1), 41–76.
- TSC Industries, Inc. v. Northway, Inc., 426 U.S. 438 (1976), [available at <https://www.law.cornell.edu/supremecourt/text/426/438>].
- Tuli, Kapil R., Anirban Mukherjee, and Marnik G. Dekimpe (2012), "On the Value Relevance of Retailer Advertising Spending and Same-Store Sales Growth," *Journal of Retailing*, 88 (4), 447–61.
- Verhoef, Peter C. and Peter S.H. Leeflang (2009), "Understanding the Marketing Department's Influence Within the Firm," *Journal of Marketing*, 73 (March), 14–37.
- Vorhies, Douglas W., Robert E. Morgan, and Chad W. Autry (2009), "Product-Market Strategy and the Marketing Capabilities of the Firm: Impact on Market Effectiveness and Cash Flow Performance," *Strategic Management Journal*, 30 (12), 1300–34.
- Walker, Orville C., Jr., and Robert W. Ruekert (1987), "Marketing's Role in the Implementation of Business Strategies: A Critical Review and Conceptual Framework," *Journal of Marketing*, 51 (July), 15–33.
- Woodside, Arch G., Daniel P. Sullivan, and Randolph J. Trappey III (1999), "Assessing Relationships Among Strategic Types, Distinctive Marketing Competencies, and Organizational Performance," *Journal of Business Research*, 45 (2), 135–46.
- Xiong, Guiyang and Sundar Bharadwaj (2014), "Pre-Release Buzz Evolution Patterns and New Product Performance," *Marketing Science*, 33 (3), 401–21.
- Zeger, Scott L. and Kung-Yee Liang (1986), "Longitudinal Data Analysis for Discrete and Continuous Outcomes," *Biometrics*, 42 (1), 121–30.
- , ———, and Paul S. Albert (1988), "Models for Longitudinal Data: A Generalized Estimating Equation Approach," *Biometrics*, 44 (4), 1049–60.