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The authors investigate the role of market orientation in advertising spending during economic contraction. They use the 2001 economic collapse in Turkey as the empirical context in which to test hypotheses regarding why some firms increase their advertising spending in a contraction period while the majority of firms cut back. Analyzing market orientation at the level of its intelligence and responsiveness facets, they find the responsiveness facet to be positively associated with increases in advertising spending but observe the intelligence facet to be negatively associated with advertising spending. Importantly, positive shifts in advertising spending during the economic contraction predict better subsequent business performance. The opposing roles of the intelligence and responsiveness facets disappear in a subsequent economic expansion period. These findings have managerial and theoretical implications. Firms that nurture the responsiveness facet of market orientation during economic contractions go against the tide to increase their advertising spending and experience the performance benefits that such countercyclical actions can amass.

Keywords: economic contraction and expansion, market orientation, responsiveness, advertising spending, proactive marketing

The Role of Market Orientation in Advertising Spending During Economic Collapse: The Case of Turkey in 2001

Advertising is one of the most visible and important marketing instruments available to firms. It is also among the first to be cut when country economies enter a period of contraction (Deleersnyder et al. 2009). However, cutting advertising during economic downturns also lowers stock market performance and provides opportunities for private label growth, both of which threaten firms' long-term health (Lamey et al. 2007). Indeed, there is evidence that increased

advertising spending by firms during economic contractions has a stronger positive effect on their performance than increased advertising spending during economic expansions (Steenkamp and Fang 2011). In other words, firms can use economic contractions as an opportunity to strengthen their long-term market position and performance (Srinivasan, Rangaswamy, and Lilien 2005).

Yet questions remain: Which firms go against the tide and expand advertising spending during an economic contraction? What is the industry environment that moderates their decisions? The current study addresses these pressing, largely unanswered questions. We focus on the role of market orientation as a potential driver of increased advertising spending during economic contractions. Market orientation reflects a firm's active acquisition and dissemination of information about its customers and competition ("intelligence") and a firm's vigilance in responding to opportunities and threats with appropriate actions ("responsiveness") (Hult, Ketchen, and Slater 2005; Kohli and Jaworski 1990). Our study challenges ideas that market orientation creates

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inertia, inhibits learning when “the going gets tough” (Grewal and Tansuhaj 2001), or is merely the “cost of competing” (Kumar et al. 2011). In contrast, we propose and show that market orientation gives firms the focus to explore and exploit the opportunities that a downturn provides. That is, managers in market-oriented firms refrain from following the crowd in cutting advertising spending during contraction and instead retain or even increase spending.

To highlight the importance of market orientation during an economic contraction, we investigate its relationship with advertising spending separately for the intelligence and responsiveness facets of market orientation (Harmancioglu, Grinstein, and Goldman 2010; Ketchen, Hult, and Slater 2007; Kohli, Jaworski, and Kumar 1993). In addition, we examine the relationships between the intelligence and responsiveness facets of market orientation and advertising spending across environments characterized by industry turbulence during an economic expansion period. We compare these results with market orientation’s overall relationship with advertising spending to underscore the benefits of closely investigating the facets individually. In this way, the study contributes to the market orientation literature stream and provides direction to managers regarding which facets of market orientation to invest the firm’s resources in during economic contractions.

Empirically, the study uses the collapse of the Turkish economy in 2001 as a natural field experiment setting. A unique database collected from key informants and secondary data on 403 firms in Turkey enables us to test hypotheses regarding why some firms increased advertising, whereas the majority did not. As one of the largest emerging market economies in the world, Turkey is a relevant context. In the midst of structural reforms to reverse decades of weak performance, the country experienced two consecutive economic crises in late 2000 and early 2001 (International Monetary Fund 2002). The crisis led to an economic contraction of 5.7% in gross domestic product (GDP) and an inflation rate of 68.5% in 2001, and aggregate advertising spending decreased by 38% in real terms the same year.¹ It is during this time that the first data collection took place to test our contraction period hypotheses. Although the impact of the contraction was sudden and severe, the economy recovered the following year. To test whether the findings were unique to the contraction period (our treatment condition), we collected the same data during an expansion period in 2007, which is the “natural” control condition for emerging markets. In 2007, the Turkish economy experienced a growth of 4.7% in GDP and an increase of 10.7% in aggregate advertising. In both periods, the primary data were collected from top decision makers serving as key informants (Kumar, Stern, and Anderson 1993) from the largest companies in Turkey across a variety of industries, and they were complemented by objective data. Economic crises are characterized by (1) high levels of negative interperiod changes in output and demand and (2) much uncertainty about the future levels of these factors (Wan and Yiu 2009). Crises, therefore, bear similarity to Meyer’s

(1982, p. 515) notion of environmental “jolts”: “transient perturbations whose occurrences are hard to foresee and whose effects on organizations are disruptive and potentially inimical.” The case of Turkey in 2001 provides an apt context in which to test predictions about the role of market orientation during such jolts.

Theoretically, we tie the market orientation literature stream to research on advertising during economic contractions. No research to date has examined how being market oriented is related to advertising spending in either economic contraction or expansion periods. This is a significant gap in the literature because research has identified both market orientation and advertising spending as important drivers of firm performance. Moreover, both are, to a large extent, under the discretion of marketing managers, making them critical strategic tools to manage firms through economic contractions.

THEORETICAL BACKGROUND

Advertising Spending

The benefits of advertising can be pronounced, particularly during downward business cycles. That is, “advertising in contractions is significantly more effective than advertising in expansions in building market share and profit” (Steenkamp and Fang 2011, p. 638). Firms that increase their ad spending during economic contractions experience higher sales, market share, and earnings during and after the contraction along with higher long-term stock price performance compared with those that cut back on advertising spending (Deleersnyder et al. 2009; Tellis and Tellis 2009).

Prescriptive research has indicated that advertising spending should increase during downturns as a proactive way of investing for postrecession periods (Srinivasan, Rangaswamy, and Lilien 2005). However, “the problem is that many advertisers, especially those who tend to set their advertising budgets at a fixed percentage of sales, actually increase advertising when times are good and decrease it when sales are weak” (Aaker, Batra, and Meyers 1992, p. 563). Research on aggregate levels of advertising spending across 37 countries supports this view (Deleersnyder et al. 2009). A 1% deviation from GDP’s long-term growth translates to a corresponding deviation of 1.4% in advertising expenditure. Thus, managers typically respond to economic contractions by sharply reducing their advertising spending.

Firms can choose to defend or even strengthen their position in the market against competition by erecting barriers to imitation through brand-based advertising. Firms evaluate their current capabilities and the industry environment and, with some performance expectation, decide whether to invest limited resources in marketing. We suggest that an important determinant of this evaluation process is market orientation.

Market Orientation: Intelligence and Responsiveness Activities

Firms operating in the same environment may employ different structural mechanisms to acquire information about the environmental changes by focusing on different aspects and implementing different strategies (Matsuno and Mentzer 2000). Market orientation plays a key role here. Market-oriented firms have structural mechanisms in place to acquire, disseminate, and respond to new knowledge

¹Information on economic indicators and advertising investments is accessible from the Turkish Statistical Institute (<http://tuikapp.tuik.gov.tr/Gosterge/?locale=en>) and the Turkish Association of Advertising Agencies (<http://www.rd.org.tr/>).

about their environment (Jaworski and Kohli 1993; Kohli and Jaworski 1990). Building on Deleersnyder et al.'s (2009) advertising-as-expense versus advertising-as-investment distinction, we argue that market orientation influences managers' perception of advertising's role in the firm's marketing strategy. Market orientation makes managers more focused on and consistent in creating and maintaining value for their customers (Kohli and Jaworski 1990; Kumar et al. 2011). Therefore, managers in market-oriented firms view advertising more as an investment in sustained performance and are less affected by the temporary uncertainty surrounding a contraction. These managers are likely to view the contraction as an opportunity to strengthen their customer connections and brands and to supersede their competitors. For them, market orientation acts as an anchor that promotes more strategic options, such as increasing advertising spending when the dominant response in the economy is the opposite.

Empirical research has successfully explored market orientation at its overall level (reviewed in Kirca, Jayachandran, and Bearden 2005; Kumar et al. 2011). Yet in their research, Jaworski and Kohli (1993) distinguish three specific facets of market orientation that seem particularly relevant here: intelligence generation, intelligence dissemination, and responsiveness. The two intelligence facets are conceptually and empirically closely related (Harmancioglu, Grinstein, and Goldman 2010; Ketchen, Hult, and Slater 2007), and we therefore discuss them together in this article. Intelligence generation involves the accumulation of knowledge about current and future customer needs and competitive responses. Intelligence dissemination pertains to the communication of such knowledge across business units, departments, and people. This intelligence facet is distinct from the responsiveness facet. Responsiveness involves the development of plans and the actual execution of actions to respond to customer needs and competitor attacks and actions. Thus, the intelligence and responsiveness facets entail a different focus and different activities.

Drawing on the market orientation literature stream (Jaworski, Kohli, and Sahay 2000), it is useful to distinguish two approaches to being market oriented: the intelligence facet reflects the market-driven approach, and the responsiveness facet reflects the driving-markets approach. We suggest that this distinction is critical in an economic contraction. With its activities based on "hearing the voice of the customer," so to speak, the intelligence facet reflects the market-driven approach. With its speed and action-oriented, forward-looking focus on shaping customers and competitors proactively, the responsiveness facet is in line with the driving-markets approach. In the words of Jaworski, Kohli, and Sahay (2000, p. 45), "Both approaches represent a market orientation that entails a focus on customers, competitors and broader market conditions." However, the market-driven approach to market orientation takes the customer and competitor behaviors as a "given," whereas the driving-markets approach is a proactive attempt to influence and shape them. Because a firm can both drive markets and be market driven, these approaches are complementary (Jaworski, Kohli, and Sahay 2000). Although both are equally important in shaping firm behavior during the normal course of the economy, we hypothesize that during contractions, these dual approaches lead to different behaviors, as captured by advertising spending in our study.

There is some support in the market orientation literature stream for our conjecture that the intelligence facet reflects the market-driven approach and the responsiveness facet reflects the driving-markets approach. For example, Baker and Sinkula (2002) point out that market-oriented firms, in general, are better able to adapt to changing market conditions, and yet they distinguish proactive (i.e., company-driven) and reactive (i.e., competitor-driven) approaches to being market oriented. Designing a swift response to the crisis reflects a proactive, driving-markets approach aimed at "changing the composition and/or roles of players in a market and/or the behavior(s) of players in the market" (Jaworski, Kohli, and Sahay 2000, p. 47). Matsuno, Mentzer, and Özsoy (2002, p. 27) make a related point.

Thus, when the economic environment is in turmoil, knowledge generation and dissemination activities, reflecting the market-driven approach to market orientation, create inertia (Grewal and Tansuhaj 2001), whereas responsiveness activities, reflecting the driving-markets approach, are crucial for designing timely and fitting responses (Bhide 1994). By investigating the different relationships of the intelligence and responsiveness facets with increased advertising spending, our study captures the differential relevance of each market orientation facet during economic contractions. Figure 1 presents our conceptual framework and the expected associations.

Intelligence activities. The intelligence facet involves activities to observe competitors closely, sense customer needs, and disseminate this information throughout the firm using a variety of online and off-line research techniques. The resulting intelligence can increase awareness regarding the crisis and its impact; however, it can also stall the firm. First, in an effort to avoid costly mistakes (for their firms and for their personal careers), managers may opt for more caution and prudence in their decisions and decide to cut costs. Because it improves short-term profitability, a common response is then to cut advertising spending (Deleersnyder et al. 2009). Second, intelligence activities generate a wealth of information, which can quickly become obsolete in the crisis environment. Managerial caution necessitates more internal dissemination of the intelligence. Cautious managers may find themselves caught up in information overload and analysis paralysis, decreasing confidence in their own decision making. In these ways, a focus on intelligence activities may increase cost cutting and caution and create a tendency for firms to rely on the wisdom of the crowds by decreasing their own advertising spending (Deleersnyder et al. 2009; Low and Mohr 1999). Thus:

H₁: A firm's intelligence activities negatively affect its propensity to increase advertising spending during an economic contraction.

Responsiveness activities. The responsiveness facet of market orientation involves viewing the crisis as an opportunity to pull ahead of one's competitors by rapidly designing and implementing responses to the changing environment. Indeed, industry reports show that contractions dramatically change the pecking order of companies, and these shake-ups have long-lasting effects (Steenkamp and Fang 2011). Furthermore, during contractions, consumers are shaken out of their habitual decision making (Lamey et al. 2007). In such an environment, responsiveness sends

Figure 1
FACETS OF MARKET ORIENTATION, ADVERTISING SPENDING, AND BUSINESS PERFORMANCE

reassuring signals to concerned customers about the firm's staying power and provides incentives to switch in from weaker brands/firms (Srinivasan, Rangaswamy, and Lilien 2005) or not to switch out to lower-priced alternatives and private labels (Lamey et al. 2007, 2012). As a case in point, during the collapse in Turkey in 2001, managers at Unilever increased the perceived value of the Dove brand by getting customers to focus on previously unconsidered attributes. With an offensive ad campaign stressing "You don't need an extra moisturizer when you use Dove, because Dove has 25% moisturizer," they succeeded in penetrating even low-income segments despite the product's high price (at the time, it was four times the price of a typical soap bar). This offensive advertising response was instrumental in Unilever's market share gain of five percentage points by mid-2002 (Hollis 2008).

Demand- and supply-side factors make the relationship between the responsiveness facet of market orientation and advertising spending particularly strong during economic contraction. On the demand side, in a contraction, demand for the firm's goods is likely to be lower. Consumers become more price sensitive and risk averse and thus more inclined to switch to private labels (Lamey et al. 2007, 2012). In such an environment, the benefits of being responsive to customers are great (Steenkamp and Fang 2011). Responsive managers who want to insulate the firm from price competition can use advertising to retain and build brand equity, as the Dove managers at Unilever did. On the supply side, the dominant practice of most firms to cut back advertising during contractions reduces competitive clutter, decreases advertising production costs, and increases production quality (Steenkamp and Fang 2011). This enables responsive firms to drive markets by increasing their ad spending and suggests the following hypothesis:

H_2 : A firm's responsiveness activities positively affect its propensity to increase advertising spending during an economic contraction.

Industry Environment

Not all industries are affected similarly by an economic contraction (Deleersnyder et al. 2004). Variations in industry turbulence can arise as a result of several heterogeneous sources: competitive intensity, demand turbulence, and technology turbulence (Kohli and Jaworski 1990). Although any of these turbulence sources may be present to some extent in low-turbulence industries, high-turbulence industries are characterized by all three dynamics during an economic downturn (Steenkamp and Fang 2011). In the current study, we focus on the overall effects of industry turbulence.

Intelligence about consumers and competitors in a high-turbulence environment has a shorter shelf life and its quality is more difficult to assess; therefore, managers must disseminate it to other functions more often (Maltz and Kohli 1996). This dissemination may strengthen uncertainty, short-term focus, and tendencies to follow the crowd in downward ad spending. Likewise, responsiveness activities to act on opportunities gain importance in turbulent industries (Steenkamp and Fang 2011). Thus, it is reasonable to predict that industry turbulence intensifies the relationships of advertising spending with the intelligence and responsiveness facets of market orientation. That is, we expect intelligence activities to reduce advertising spending during an economic contraction (H_1) and predict that industry turbulence will strengthen this effect. In addition, we expect responsiveness activities to increase ad spending during an economic contraction (H_2) and believe that industry turbulence will further strengthen this effect as well.

H₃: Industry turbulence strengthens the negative impact of a firm's intelligence activities on increasing advertising spending during an economic contraction.

H₄: Industry turbulence strengthens the positive impact of a firm's responsiveness activities on increasing advertising spending during an economic contraction.

Support for our hypotheses would reveal the importance of being specific about market orientation and that facets of market orientation have different relationships with advertising spending. Moreover, it would show how the relationships between the facets and advertising spending are contingent on industry turbulence. To explore the robustness of the findings, we control for several company-level covariates in hypothesis testing, described subsequently. For the same aim, we test the relationships between market orientation facets and advertising spending across major industry types. Finally, given our focus on changes in advertising spending as a key indicator of strategic marketing emphasis, we also explore the relationship between market orientation's facets, advertising spending, and overall business performance of firms during economic contractions. Exploring firms' overall business performance provides a broader picture of the pivotal role of market orientation activities during economic downturns.

METHOD

Data Collection Procedure and Sample

We tested our hypotheses in the context of advertising spending decisions managers made during the 2001 contraction period in Turkey. We used subjective survey data and objective archival data to uncover the role of market orientation (Kumar et al. 2011). Because it is notoriously difficult to access information from and about firms in emerging economies (Khanna and Rivkin 2001), we contacted the Istanbul Chamber of Industry (ICI) to endorse our study. The ICI publishes a list that ranks Turkey's largest 1,000 manufacturers on a yearly basis. In our study, the ICI lists constitute the sampling frames. The firms in the ICI list generated 33% of the GDP in Turkey in 2001. The ICI provided proprietary membership information and key secondary data that it collects from its members. Because business groups have historically dominated the Turkish private sector with their diversification strategies and size (Colpan and Hikino 2008), our focus on large firms provides ecological validity.

Two pilot tests supported questionnaire development. The first pilot test included face-to-face interviews with 12 top-level managers from the target population. The second test involved administering the survey to an executive education class of 44 top- and middle-level managers with an average of ten years work experience. Items were translated from English to Turkish and then back-translated to ensure that their meaning was properly conveyed. Minor changes to the items were made on the basis of the feedback from the pilot tests. Data collection on the economic contraction period took place between February and June 2002, approximately a year after the peak of the crisis, so that managers could assess the effects of the crisis (following Srinivasan, Rangaswamy, and Lilien 2005). The package included a copy of the questionnaire, a personalized cover letter outlining the purpose and confidential nature of the survey, and a separate letter from the director of the ICI

endorsing the study and encouraging participation. To increase response rates, informants were also promised (and received) an executive summary with average industry-level results.

There were three contact moments in the survey—namely, an initial mailing and two follow-up mailings. A total of 952 mailings yielded 412 questionnaires, of which 403 were usable. There was no significant correlation between the time of returning the questionnaire and key study variables. In addition, there were no differences between respondents and nonrespondents with respect to company sales volume, profit, total exports, and number of employees using secondary data provided by the ICI (all *ps* > .10). The sample covered a broad spectrum of industries, firm sizes, and ownership structures (see Table 1).

As is desirable for studies of this nature, the informants are key decision makers in their respective companies (Kumar, Stern, and Anderson 1993). Their average tenure in the company was 12 years. In total, 46% were chief executive officers, 8% were presidents or members of the board of directors, 16% were marketing directors, and the rest were other top executives, including strategic planning managers, business development managers, and finance managers.

Key Measures

The informants reported to what extent their firms had changed their advertising spending in real terms (adjusted

Table 1
PROFILE OF COMPANIES

	<i>Economic Contraction Period (Percentage)</i>
<i>Industry Groups</i>	
Mining and energy	5
Transport equipment	7
Other nonmetallic mineral products	9
Chemicals and plastic products	15
Food, beverages, and tobacco products	13
Metals and fabricated metal products	11
Machinery and electronic equipment	9
Textiles and apparel	23
Wood and paper products	5
Others	3
<i>Sales</i>	
<\$20 million	26
\$20 million–\$49.99 million	34
\$50 million–\$99.99 million	15
\$100 million–\$499.99 million	10
>\$500 million	1
Information not available	14
<i>Number of Full-Time Employees</i>	
<49	2
50–99	5
100–249	30
250–499	27
500–999	20
>1,000	12
Information not available	4
<i>Percentage of Foreign Capital</i>	
0	78
1–9.99	1
10–24.99	3
25–49.99	6
50–99.99	7
100	5

Notes: Using 2001 data; N = 403.

for inflation) during the crisis (referring to the 2001 contraction period). The exact question is as follows:

Which of the following best describes the changes you made in 2001 in your advertising spending in real terms (adjusted for inflation):

- (a) Our advertising spending did not change.
- (b) Decreased in real terms. State as a percentage: _____
- (c) Increased in real terms. State as a percentage: _____.

The percentage change in advertising spending the informants reported in each period is the focal dependent variable. The average percentage change in advertising spending was -10.76% during the 2001 contraction year, revealing typical cyclical advertising spending. This reduction in real ad spending of approximately 11% in our sample of manufacturing firms is lower than the industry-wide reduction of 38% in the same year, reflecting the larger decrease in nonmanufacturing industries (e.g., finance, insurance, telecommunication, entertainment, tourism, retail). There was no significant difference in percentage change figures across industries ($F(9, 370) < 1$). For the two major industries in the sample, textile products and chemical products, the average percentage change in advertising spending was $M_{\text{textiles}} = -6.73\%$ and $M_{\text{chemicals}} = -12.48\%$.

We assessed market orientation facets using the MARKOR scale (Kohli, Jaworski, and Kumar 1993). The “information generation” facet comprised six items (composite reliability [CR] = .72; e.g., “We periodically review the likely effect of changes in our business environment [e.g., regulation] on customers”). The “information dissemination” facet comprised five items (CR = .82; e.g., “When something important happens to a major customer or market, the whole business unit knows about it in a short period”).² The responsiveness facet comprised nine items (CR = .81; e.g., “If a major competitor were to launch an intensive campaign targeted at our customers, we would implement a response immediately”). All market orientation items were accompanied by seven-point response scales (1 = “strongly disagree,” and 7 = “strongly agree”).

We measured industry turbulence as an index formed by Jaworski and Kohli’s (1993) three environment characteristics (see also Kumar et al. 2011). Competitive intensity was measured with five items (CR = .80; e.g., “There are many ‘promotional wars’ in our industry”). Demand turbulence was measured with four items (CR = .85; e.g., “The needs of our customers change frequently”).³ Technology turbulence was measured with five items (CR = .86; e.g., “The technology in our industry is changing rapidly”). To capture business performance, our informants reported on their firm’s performance in Turkey on four aspects: return on investment, profitability, sales growth, and market share (see Kumar et al. 2011) during 2001 (the contraction period), using seven-point response scales (1 = “unsatisfactory,” and 7 = “satisfactory”; CR = .77).

The Istanbul Chamber of Commerce provided access to secondary data about prior firm performance, from which

we calculated annual sales growth using 1999–2000 sales as benchmark. We included this past sales growth measure as a control variable.

Additional Measures

Additional measures captured firm- and industry-level characteristics that might independently influence advertising spending, business performance, or both. Firm-level characteristics such as size and foreign ownership provide organizational slack and strategic flexibility (Balasubramanian and Kumar 1990) and thus can affect advertising spending during contraction. To control for these effects, we included the logarithm of total number of full-time employees and percentage of foreign ownership as control variables. In addition to advertising spending, managers can use other revenue-generation or cost-cutting levers to manage through contractions (Tellis and Tellis 2009). To account for these other levers, we included percentage change in product/service prices, employee wages, and total number of employees as control variables. For the percentage change in product/service prices and employee wages, informants reported on the level of change in their firms’ prices and wages during the 2001 contraction period in real terms (adjusted for inflation). We calculated the percentage change in employees for each time period from the reported full-time employee numbers.

To establish whether overall industry growth affected advertising (Balasubramanian and Kumar 1990), we used the Industrial Production Index figures published monthly by the Turkish Statistical Institute (2014). We calculated and used year-to-year change in output for every industry classified according to the International Standard Industrial Classification Revision 3 classification code for the 2000–2001 production figures. Finally, we assessed whether the firm was business-to-business (B2B) or business-to-customer (B2C) with a dummy variable (1 and 0, respectively).

Measure Validation

We assessed psychometric properties of the multi-item measures using confirmatory factor analysis (CFA). We estimated all analyses with MPlus 6.1 (Muthén and Muthén 2010). To cope with measurement model complexity, we estimated partial disaggregation models representing each construct by two item parcels (Bagozzi and Edwards 1998) using random item sampling (Coffman and MacCallum 2005). Following Little et al. (2002, 2013), we preferred to use parcels for measure validation so that scales were comparable and consistent with the previous work. Parcels are averages of the uneven and even numbered items in a scale (see Appendix A). We modeled market orientation and industry turbulence as higher-order reflective constructs with three facets (Bagozzi and Edwards 1998). All factor loadings of item parcels were greater than .50 and significant at $p < .01$.

The fit of the overall measurement model including market orientation, industry turbulence, and business performance is good ($\chi^2(68) = 150.1, p < .01$; root mean square error of approximation = .06; 90% confidence interval [CI] = .04, .07; comparative fit index = .97; standardized root mean square residual = .05). All indicators of the latent constructs showed convergent validity, as indicated by their average variance extracted (AVE) greater than .50 and CR greater

²We originally included an item about “informal discussions in hallways,” but we dropped it because of its low contribution to the measure.

³We originally included an item about “competitors making unpredictable moves,” but we dropped it because of its low contribution to the measure.

than .70. All constructs, except the two intelligence facets of market orientation, also exhibited discriminant validity. That is, the square roots of the AVEs were greater than the correlations for all constructs except intelligence generation and intelligence dissemination. Thus, the two market orientation facets that capture companies' knowledge-related activities represent a single, more general facet in the current database.⁴ Researchers have found the same clustering of facets in previous work (Harmancioglu, Grinstein, and Goldman 2010; Ketchen, Hult, and Slater 2007). Therefore, we combined the intelligence generation and dissemination facets under the label "intelligence" in the relevant analyses. Finally, although we cannot completely rule out common method bias, we controlled for it using procedural (e.g., improving comprehension of our scales through pretests, protecting respondent anonymity) and statistical remedies (e.g., using Harman's one-factor test, incorporating a latent method factor in our model), as Podsakoff et al. (2003) suggest. The presence of significant mediation (through advertising spending) and moderation (i.e., industry turbulence) effects also suggests that common method bias is not significant in our model, because the presence of either indicates that the single informants per firm reliably captured significant effects of the phenomena without bias. Jointly, these results support the construct validity of the latent constructs in the model. Table 2 provides descriptive statistics for the measures. All analyses use average scores across the items of the constructs, mean-centered to reduce nonessential multicollinearity (Cohen, Cohen, and West 2003).

RESULTS

We estimated two path analysis models to test the hypotheses represented in the conceptual model (Figure 1), and we used R-square values as fit measures. Model 1 contained all main effects. It tested H_1 and H_2 , which specify opposing relationships between market orientation facets and advertising spending during economic contractions. Model 2 added the interaction effects to test H_3 and H_4 for the moderating impact of industry turbulence on these relationships. We simultaneously estimated both models with the path analysis for business performance. Table 3 summarizes the findings. We first examine the key results for advertising spending and explore the relationships with business performance in a separate section.

Advertising Spending

In support of H_1 and H_2 , the intelligence facet had a negative relationship ($\beta = -.098, p = .068$) and the responsiveness facet had a positive relationship ($\beta = .247, p < .001$) with percentage change in advertising spending. Although the (negative) sign of the effect was as we predicted, the relationship between intelligence activities and advertising spending did not differ as a function of industry turbulence ($p = .177$), which is counter to H_3 . However, the two-way interaction between the responsiveness facet and industry turbulence ($\beta = .138, p = .016$) was significant, in support of H_4 . To interpret this interaction effect, Figure 2 plots the

simple slopes using standard regression procedures (± 1 SD of mean of industry turbulence; Cohen, Cohen, and West 2003). Figure 2, Panel A, depicts the nonsignificant interaction effect between the intelligence activities and industry turbulence for comparison. Figure 2, Panel B, depicts a steeper slope under high industry turbulence. Jointly, the estimations and plots demonstrate how, during the economic contraction period, the relationships between the responsiveness activities and percentage change in advertising spending were larger when industry turbulence was high than when it was low.

The results are not unduly affected by multicollinearity (all variance inflation factors < 2). Firms in our sample come from ten broad industries, including automotive, food, and chemicals (see Table 1). Adding nine dummy variables to capture the heterogeneity across various specific industries (the "Others" group is treated as the baseline industry) did not change any of the tests, and therefore we do not report their effects.

Business Performance

As Table 3 shows, changes in advertising spending were indeed associated with better business performance ($\beta = .146, p = .002$), in line with recent research (Steenkamp and Fang 2011). Regarding the other managerial levers that we controlled for in our model, increasing the number of full-time employees was significantly and positively related to firms' overall performance ($\beta = .347, p < .001$) during contractions. Importantly, the positive relationship between changes in advertising and business performance was significant, even while controlling for these other managerial levers.

Table 3 reports the direct effect of facets of market orientation on advertising spending and business performance. Because we estimated path models, we could gauge the indirect effects of intelligence and responsiveness activities on business performance through advertising spending using the products of the relevant unstandardized regression coefficients while controlling for all other effects (e.g., Preacher, Zyphur, and Zhang 2010). Indirect effects (with their CIs based on 5,000 bootstrap samples) are reported. During the contraction period, the mean indirect or mediation effect of responsiveness activities on business performance was .057 ($= .101 \times .566$, where .101 is the unstandardized coefficient of responsiveness activities on change in advertising spending and .566 is the unstandardized coefficient of change in advertising spending on performance, both from the results of the bootstrap estimations; 95% CI = .016, .134), which further supports its vital role during economic contraction. This significant, indirect effect indicates how responsiveness during economic contraction pays off in terms of better business performance because of its effect on advertising spending. The intelligence facet had a marginal direct effect on business performance ($p = .068$; see Table 3), but it did not have an indirect effect, as mediated by changes in advertising spending, $-.018$ ($= -.033 \times .566$, unstandardized coefficients from the results of the bootstrap estimations; 95% CI = $-.065, .004$ and 90% CI = $-.057, .000$). Taken together, these findings provide evidence that the responsiveness facet has a systematic positive direct effect on business performance as well as the predicted significant indirect effect on business performance mediated by changes in advertising spending during an economic contraction period.

⁴Two separate CFAs formally tested the two-facet configuration of market orientation with the three-facet configuration of market orientation. A chi-square difference test revealed the two-facet solution to be superior ($\Delta\chi^2(1) = 26.9, p < .001$).

Table 2
DESCRIPTIVE INFORMATION ABOUT THE MEASURES

Construct	Scale	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1. Intelligence activities	Seven-point	5.39	.99	1.00															
2. Responsiveness activities	Seven-point	5.42	.81	.60	1.00														
3. Market orientation	Seven-point	5.40	.81	.93	.85	1.00													
4. Competitive intensity	Seven-point	4.21	1.18	.19	.07	.16	1.00												
5. Demand turbulence	Seven-point	3.58	1.29	.15	.04	.12	.23	1.00											
6. Technology turbulence	Seven-point	4.08	1.25	.21	.08	.18	.04	.37	1.00										
7. Industry turbulence	Seven-point	3.98	.85	.27	.09	.22	.62	.74	.71	1.00									
8. B2B versus B2C	Dummy	.57	.50	-.08	-.10	-.10	-.12	-.09	-.06	-.13	1.00								
9. Change in ad spending	%	-10.76	32.96	.03	.17	.10	-.16	.00	.04	-.06	.07	1.00							
10. Performance	Seven-point	4.17	1.32	.23	.30	.29	-.05	.02	.10	.04	-.07	.24	1.00						
11. Past sales growth	%	64.61	40.28	.03	.04	.04	.05	-.01	-.06	-.01	.09	.07	.05	1.00					
12. Firm size	Log N of employees	5.92	.92	.02	.05	.03	-.07	.13	.13	.09	-.06	.04	.00	.11	1.00				
13. Foreign ownership	%	11.80	26.65	.06	.07	.07	.03	-.06	-.07	-.04	.09	-.03	.05	-.01	.06	1.00			
14. Change in prices	%	4.58	30.31	-.05	.01	-.02	-.04	-.23	-.03	-.14	-.12	.02	.11	-.04	-.04	-.06	1.00		
15. Change in wages	%	-5.04	28.94	.12	.14	.14	.00	-.03	.15	.07	-.17	.13	.17	-.09	-.07	-.10	.39	1.00	
16. Change in number of employees	%	-6.88	20.72	.07	.14	.11	-.07	.02	.05	.00	-.10	.18	.40	.02	-.16	-.01	.06	.19	1.00

Notes: Correlations larger than .10 and smaller than -.10 are significant at $p < .05$ ($N = 403$). Consistent with our conceptualization, we calculated industry turbulence as an overall index using managers' respective ratings of competitive intensity, demand turbulence, and technology turbulence. We used this overall index as an independent variable in the subsequent analyses.

Table 3
FACETS OF MARKET ORIENTATION AND ADVERTISING SPENDING DURING ECONOMIC CONTRACTION

	Change in Advertising Spending			Change in Advertising Spending			Business Performance		
	β	SE	p-Value	β	SE	p-Value	β	SE	p-Value
<i>Independent Variables</i>									
Intelligence facet (INT)	-.098	.065	.068	-.126	.068	.031	.105	.058	.068
Responsiveness facet (RESP)	.247	.062	<.001	.276	.063	<.001	.153	.057	.008
Industry turbulence (IT)	-.045	.052	.386	-.029	.053	.581	.006	.047	.895
INT $\times$ IT	—	—	—	-.062	.066	.177	—	—	—
RESP $\times$ IT	—	—	—	.138	.064	.016	—	—	—
Change in advertising spending	—	—	—	—	—	—	.146	.048	.002
<i>Control Variables</i>									
B2B versus B2C	.086	.051	.089	.086	.051	.091	-.014	.046	.764
Firm size	.028	.051	.585	.018	.052	.726	.053	.047	.259
Foreign ownership	-.054	.051	.284	-.056	.050	.271	.046	.045	.307
Past sales growth	.040	.054	.451	.036	.054	.498	.031	.050	.528
Change in prices	—	—	—	—	—	—	.077	.051	.131
Change in wages	—	—	—	—	—	—	.034	.052	.512
Change in number of employees	—	—	—	—	—	—	.347	.046	<.001
R-square	.053	.022	.019	.064	.024	.009	.233	.034	<.001

Notes: Standardized solution; *p*-values are two-tailed except for the hypothesized paths.

Figure 2

INDUSTRY TURBULENCE MODERATES THE RELATIONSHIP BETWEEN FACETS OF MARKET ORIENTATION AND CHANGE IN ADVERTISING SPENDING

Notes: IT = industry turbulence. Interaction effects were not significant for the intelligence facet ($p > .10$), but we depict them for comparison.

VALIDATION ANALYSES

We performed a series of follow-up analyses to examine the validity and robustness of the findings. The following subsections detail our results.

Industry Growth

We estimated an alternative model, adding objective information about industry growth as a control variable of business performance. We obtained industry growth figures from the Turkish Statistical Institute (see the “Method” section). The average growth for the industries captured in our sample was -7.94% in 2001, the contraction year. This objective measure of industry growth had a marginally positive association with better reported business performance ($\beta = .079$, $p = .098$) but did not change the relationship between market orientation facets and business performance or that between market orientation facets and advertising spending during the economic contraction (all *ps* remained the same); however, the relationship between intelligence facet and change in advertising became insignificant ($p = .107$).

Goods Versus Services Industries

We estimated a second alternative model in line with previous research (Kirca, Jayachandran, and Bearden 2005; Srinivasan, Lilien, and Sridhar 2011) indicating potential differences between goods and services firms in market orientation activities and/or advertising spending. Therefore, we dummy-coded and included goods firms versus services firms (1 and 0, respectively) as an additional control variable in our models. We dropped the B2B dummy variable from these models to overcome collinearity problems. None of the main or interaction effects of goods versus services had significant relationships with advertising or business performance (all *ps* $> .10$). This result supports the robustness of the findings across these factors.

Expansion Period

To show that the main findings are specific to economic downturns and do not emerge in other economic situations,

we collected data in 2008. The period of interest was 2007, when Turkey experienced a 4.7% growth in GDP and a 30.5% increase in aggregate advertising spending from the previous year. The sampling frame (the largest 1,000 manufacturers of Turkey), measures, and data collection and analysis procedures were the same as for the main study. We received responses from 302 managers; the profile of the respondents was similar to the main study. In this new sample, mean change in advertising spending was +10.09% during the 2007 expansion year, consistent with previous findings related to procyclical behavior in advertising spending. There was no significant difference in percentage change figures across industries ($F(9, 266) < 1$); for the two major industries represented in this sample, textile products and chemical products, the average percentage change in advertising spending was $M_{\text{textiles}} = 13.09\%$ and $M_{\text{chemicals}} = 10.27\%$.

The fit of the measurement model is good for the 2007 data ($\chi^2(68) = 93.6, p < .05$; root mean square error of approximation = .04; 90% CI = .01–.05; comparative fit index = .98; standardized root mean square residual = .05). All indicators of the latent constructs showed convergent validity ($AVE > .50$ and $CR > .70$) and discriminant validities (except the two intelligence facets of market orientation, which were combined under “intelligence activities” as in 2001 contraction data analysis). In addition, a multigroup CFA with all factor loadings across the two surveys freely estimated did not differ significantly from a model with factor loadings constrained to be equal across surveys ($\Delta\chi^2(7) = 12.0, p > .10$), suggesting that parcel-construct representations were time-invariant. The results of path analysis models for the 2007 expansion period (see Appendix B) showed that none of our focal constructs had a significant relationship with change in advertising spending ($p > .10$).

The question is whether the relationships between the two facets of market orientation had different relationships with advertising spending in the contraction period compared with the expansion period. Tests on the difference between regression coefficients in independent samples (Cohen, Cohen, and West 2003) indicated that the relationship of intelligence activities with change in advertising spending was marginally lower during the 2001 contraction compared with the 2007 expansion period ($t(697) = -1.68, p = .094$) and that the relationship of responsiveness activities with change in advertising spending was significantly higher in 2001 compared with 2007 ($t(697) = 2.85, p = .005$). This finding provides evidence that the facets of market orientation, particularly responsiveness, play different roles in driving markets as expressed in advertising spending and that the relationships are particularly important during economic contraction periods.

Key Informant Reports

The present study relies on objective, secondary data as well as key informant reports from top managers. Key informant reports are a major source of information about managerial decisions and business performance (Kumar et al. 2011; Srinivasan, Rangaswamy, and Lilien 2005), particularly in emerging economies, where detailed secondary data are often unavailable (Burgess and Steenkamp 2006). Most production in Turkey comes from privately owned firms, which severely limits publicly available information. To illustrate, the ratio of the stock market capitalization to GDP for 2001 (2007) was 24% (44%) in Turkey, compared

with 135% (143%) in the United States (World Bank 2014). Key informant data are then the best alternative to objective data, but they might be biased. The pattern of associations we obtained is consistent with theory and previous research, which builds confidence in their validity.

To further gauge the validity of the key informant reports, we gained access to the financial statements of the publicly traded firms in our sample (75 in 2001 and 43 in 2007), with the help of the Istanbul Stock Exchange. We used the reported marketing expenditures and sales figures in follow-up model estimations. To accommodate the small sample sizes, we estimated parsimonious models by dropping all paths that were statistically insignificant in the main models ($ps > .20$; Goldberger 1998). In these follow-up models, R-squares in accounting for advertising spending and performance increased slightly (by 3%–8%). Moreover, results from multiple regressions on the objective data indicate that change in marketing expenditures' relationship with sales growth ($\beta = .496, p < .001$) was positive during the economic collapse, which is in line with data from key informants. Other focal paths were directionally in line with the main findings (albeit not statistically significant). Responsiveness activities were positively related ($\beta = .213, p = .105$) and intelligence activities were negatively related ($\beta = -.153, p = .199$) to change in marketing spending. The sample size of publicly traded firms in the expansion period ($N = 43$) was too small for reliable analyses. Jointly, these analyses provide further support for the use of key informants in our study.

Endogeneity

Another issue involves potential endogeneity of our predictors and covariates from the use of observational data, which threatens much other market-orientation research as well. In line with Wooldridge (2009), follow-up instrumental variable regression models on the combined sample ($N = 701$) suggest that endogeneity was not a serious threat in our context. Specifically, in view of our measure of business performance, five variables in the model might potentially be endogenous: change in advertising spending, change in prices, change in wages, change in number of employees, and industry growth. In line with previous work (Lamey et al. 2012), we calculated the averages of each of the five variables, after excluding the industry of the focal firm, to obtain five instruments. We then estimated a series of auxiliary regression models with each potentially endogenous variable as the dependent variable and its instrument plus all other exogenous variables of our business performance models as covariates. Coefficients of all instruments were statistically significant ($p < .01$), supporting the choice of instruments. We then used the residuals from each auxiliary regression to implement a version of the Hausman exogeneity test. Here, our original model (regression of business performance on all exogenous and potentially endogenous variables) serves as the restricted model. We estimated a second unrestricted version by including the five estimated residuals from the auxiliary regression. The residuals capture the potentially endogenous component of our covariates. A joint test of statistical significance based on the change in the R-square was insignificant ($F(5, 382) = .96, p = .44$), indicating that endogeneity does not seem to be a major concern here.

CONCLUSION

This study examines the role of market orientation activities in advertising spending and business performance during the economic collapse of Turkey in 2001. Economic contractions offer opportunities for firms to pull ahead of the competition. Using data from more than 400 firms across industries, our study reveals that the responsiveness facet (but not the market intelligence facet) of market orientation determined whether firms went against the tide during the rapid economic contraction and increased their advertising spending, and it shows that this advertising spending improved overall business performance. Although the effects of market orientation and advertising spending have been the focus of much research, our study is the first to link the two, using the rapid economic contraction in Turkey in 2001 as our empirical context.

Implications

Our results highlight the qualitatively different relationships that market orientation facets have with advertising spending and business performance. Responsiveness activities during the economic contraction benefited the firm's business performance by increasing advertising spending. However, the intelligence generation and dissemination facet had a negative relationship with changes in advertising spending. Thus, increased focus on market intelligence activities during the economic contraction was associated with less advertising spending and somewhat lower business performance. Relying on intelligence activities may occupy managers with information that quickly becomes irrelevant due to rapid changes in the marketplace, which may detract scarce resources from other activities and make managers rely more on competitor actions; these factors contribute to the tendency to cut advertising.

Industry turbulence moderated the relationship between market orientation facets and advertising spending. Specifically, the positive relationship of the responsiveness facet with change in advertising spending strengthened when demand patterns and technology changed frequently and competitive moves became more intense during an economic collapse. The contraction environment, exacerbated by high industry turbulence, may have motivated responsive managers to become creative experimenters and engage the corporate board in driving markets, which entails thinking differently and deviating from the majority in advertising spending decisions. The negative relationship of marketing orientation's intelligence facet with change in advertising spending stayed the same as industry turbulence soared. Firms that were focused on collecting and disseminating market intelligence seemed to decrease their advertising spending irrespective of the extent of industry dynamism. Although intelligence efforts are intended to bring formal market insights with a potential to change existing marketing conduct, they seemed to promote inertia (with, e.g., paper trails, frequent meetings) and herding during the economic collapse by following the crowd of firms that cut ad spending.

The responsiveness facet had not only a direct relationship with business performance but also an indirect relationship mediated by increased advertising spending. In contrast, intelligence generation and dissemination activities decreased advertising spending, which in turn dampened business performance. Although the intelligence facet had a (marginally

significant) direct relationship with business performance, the absence of an indirect relationship further highlights the role of responsiveness during economic collapse.

Taken together, the findings reveal the very different relationships that the individual facets of market orientation have with advertising spending and business performance. The literature stream has emphasized overall measures of market orientation that aggregate across its facets (Kirca, Jayachandran, and Bearden 2005; Kohli and Jaworski 1990; Kumar et al. 2011). This aggregate perspective on the role of market orientation in business performance has led to important new insights that have informed managerial decision making. Yet the present study also demonstrates the benefits of being specific about market orientation and that a disaggregate analysis on the level of its facets provides new insights that cannot readily be obtained otherwise. Indeed, taking such an aggregate perspective in the present study might have led to inappropriate inferences about the role of market orientation in business performance during economic collapse. To explore this issue in more detail, we performed follow-up analyses. We estimated the same path models as before but with the simple average score of market orientation construct across the two facets for both 2001 contraction and 2007 expansion periods. This overall market orientation measure had a positive and significant relationship with percentage change in advertising spending ($\beta = .125, p = .009$), and industry turbulence marginally strengthened this relationship ($\beta = .069, p = .092$) during the economic contraction period. However, neither of these relationships was significant during the 2007 economic expansion ($p > .20$). The estimated models also showed that, in addition to its direct effect on business performance ($\beta = .228, p < .001$), market orientation had an indirect effect through changes in advertising spending (.030; 95% CI = .004, .082) during the contraction period but it had *only* a direct relationship with performance during the expansion year ($\beta = .274, p < .001$). At the aggregate level, market orientation was thus positively related to increased advertising spending and improved business performance during the economic collapse. However, the present study demonstrates that one facet—responsiveness—was responsible for these positive effects, whereas the other facet—intelligence—was not and even detracted from it. An aggregate perspective on market orientation might have led to recommendations to increase market intelligence activities during the economic contraction, which would have adverse effects on business performance. The current findings support the importance of being specific about market orientation and indicate that market responsiveness in particular contributes to business success in an economic contraction.

On the one hand, our findings might sensitize marketing managers to the notion that an emphasis on intelligence activities during economic downturns might have very different, even adverse, effects than during economic upturns. In an effort to understand consumers and competitors during contractions, increasing resources (e.g., money, time, effort) into acquiring and disseminating market information might come at the expense of brand-building and reputation activities (Mason 2009; Quelch 2009). That is, during contraction, efforts to listen to customer needs might actually distract from efforts to quickly plan and implement a response. Failing to be responsive might allow the contraction, an opportunity to drive markets, go to waste.

On the other hand, managers are well advised to be particularly responsive during economic contractions, and increased advertising plays a key role here. That is, the benefits of advertising during contractions “are real and may materialize while the executives are in their current jobs, even if it is only three years or so” (Steenkamp and Fang 2011, p. 643). As a case in point, during the 2001 contraction in Turkey, Procter & Gamble quickly switched to cheaper packaging of its detergents, sharing the profit with consumers through price reductions. Heavy advertising supported the packaging change, emphasizing the responsiveness of the brand and firm to consumers’ economic challenges, which jointly led to rapid increase in market share. More generally, Joseph Tripodi, chief marketing and commercial officer at Coca-Cola, advised, “Don’t let the urgent overwhelm the important. It’s very easy now to panic and we cannot panic. Invest in your brands now, especially these dry times. The easiest thing is to shut down, and that’s the worst thing” (Elliot 2008). This article provides empirical evidence for the validity of this idea.

Further Research

The present study is a first step toward understanding firm- and industry-level antecedents of advertising spending during economic contractions. A natural next step is to improve insights into the underlying processes behind the observed relationships. For example, researchers could model the presence and extent of “imitation” or “herding behavior” when high-frequency panel data become available. Similarly, it would be useful to examine the relative influences of marginal costs versus marginal benefits in eliciting the positive impact of advertising spending during downturns on firm performance.

In this study, we focused on a single country and a short, intense period of economic contraction followed by expansion. The idiosyncrasies of the specific context and periods preclude far-ranging generalizations. However, the unique context may not limit the generalizability of our findings to other emerging markets. Indeed, Altug, Filiztekin, and Pamuk (2008, p. 393) note that “in many ways, Turkey’s growth experience reflects the role of international factors that also governed growth in other developing countries.” Thus, in developing markets that are experiencing macro-level vulnerabilities such as those that Turkey experienced in 2001, managerial decision making might unfold along fundamentally related lines, and market orientation seems to be a primary factor in these processes (Grewal and Tansuhaj 2001; Homburg and Pflesser 2000; Kirca, Jayachandran, and Bearden 2005). Our findings require replication and extension to other contexts. Given that the global economy is still struggling with the “great recession,” expansion is no longer the natural condition for emerging markets, and more research is needed to provide guidance to emerging market managers who struggle to sail across hostile seas. We hope that our research and findings contribute to a safer journey by promoting responsiveness to the market.

APPENDIX A: MEASURES

Market Orientation: Intelligence Activities

(Seven-point Likert scale: 1 = “strongly disagree,” and 7 = “strongly agree”; AVE = .57; Kohli, Jaworski, and Kumar 1993)

How much do you agree or disagree with the following statements regarding the activities of your Business Unit:

Intelligence Generation

1. In this business unit, we meet with customers at least once a year to find out what products or services they will need in the future.
2. In this business unit, we do a lot of in-house market research.
3. We are slow to detect changes in our customers’ product preferences. (reverse-coded)
4. We poll end users at least once a year to assess the quality of our products and services.
5. We are slow to detect fundamental shifts in our industry (e.g., competition, technology, regulation). (reverse-coded)
6. We periodically review the likely effect of changes in our business environment (e.g., regulation) on customers.

Intelligence Dissemination

1. We have interdepartmental meetings at least once a quarter to discuss market trends and developments.
2. Marketing personnel in our business unit spend time discussing customers’ future needs with other functional departments.
3. When something important happens to a major customer or market, the whole business unit knows about it in a short period.
4. Data on customer satisfaction are disseminated at all levels in this business unit on a regular basis.
5. When one department finds out something important about competitors, it is slow to alert other departments. (reverse-coded)
6. A lot of informal “hall talk” in this business unit concerns our competitors’ tactics or strategies. (Item deleted during partial disaggregation analysis.)

Market Orientation: Responsiveness Activities

(Seven-point Likert scale: 1 = “strongly disagree,” and 7 = “strongly agree”; AVE = .68; Kohli, Jaworski, and Kumar 1993)

1. It takes us forever to decide how to respond to our competitors’ price changes. (reverse-coded)
2. For one reason or another we tend to ignore changes in our customers’ product or service needs. (reverse-coded)
3. Several departments get together periodically to plan a response to changes taking place in our business environment.
4. If a major competitor were to launch an intensive campaign targeted at our customers, we would implement a response immediately.
5. We periodically review our product development efforts to ensure that they are in line with what customers want.
6. The activities of the different departments in this business unit are well coordinated.
7. Customer complaints fall on deaf ears in this business unit. (reverse-coded)
8. Even if we came up with a great marketing plan, we probably would not be able to implement it in a timely fashion. (reverse-coded)
9. When we find that customers would like us to modify a product or service, the departments involved make concerted efforts to do so.

Industry Turbulence: Competitive Intensity

(Seven-point Likert scale: 1 = “strongly disagree,” and 7 = “strongly agree”; AVE = .64; Jaworski and Kohli 1993)

Please circle the number that most accurately describes the competitive intensity of your industry.

1. Competition in our industry is cutthroat.
2. There are many “promotional wars” in our industry.
3. Anything that one competitor can offer others can match readily.

4. Price competition is the hallmark of our industry.
5. One hears of new competitive moves almost every day.

Industry Turbulence: Demand Turbulence

(Seven-point Likert scale: 1 = “strongly disagree,” and 7 = “strongly agree”; AVE = .75; Jaworski and Kohli 1993)

Please circle the number that most accurately describes aspects concerning CUSTOMERS and TECHNOLOGY for your major product/service.

1. The needs of our customers change frequently.
2. In our industry, the product features change frequently.
3. In our industry, the price/quality demanded by customers change frequently.
4. In our industry, customers often take unpredictable actions.
5. In our industry, competitors frequently make unpredictable moves. (Item deleted during partial disaggregation analysis.)

Industry Turbulence: Technological Turbulence

(Seven-point Likert scale: 1 = “strongly disagree,” and 7 = “strongly agree”; AVE = .76; Jaworski and Kohli 1993)

1. The technology in our industry is changing rapidly.
2. Technological changes provide big opportunities in our industry.
3. It is very difficult to forecast where the technology in our industry will be in the next 2 to 3 years.
4. A large number of new product ideas have been made possible through technological breakthrough in our industry.
5. Technological developments in our industry are rather minor. (reverse-coded)

Business Performance

(Seven-point semantic scale: 1 = “unsatisfactory,” and 7 = “satisfactory”; AVE = .62; Kumar et al. 2011)

Please circle the number that most accurately describes the PERFORMANCE of your firm during 2001 (2007):

1. Return on investment (ROI)
2. Sales growth
3. Profitability
4. Market share

Appendix B

FACETS OF MARKET ORIENTATION AND ADVERTISING SPENDING DURING ECONOMIC EXPANSION

	Change in Advertising Spending			Change in Advertising Spending			Business Performance		
	β	SE	p-Value	β	SE	p-Value	β	SE	p-Value
<i>Independent Variables</i>									
Intelligence facet (INT)	.075	.080	.350	.073	.084	.384	.105	.073	.152
Responsiveness facet (RESP)	-.037	.078	.639	-.037	.080	.648	.200	.071	.005
Industry turbulence (IT)	-.004	.062	.949	-.001	.063	.991	-.014	.057	.800
INT $\times$ IT	—	—	—	-.010	.082	.908	—	—	—
RESP $\times$ IT	—	—	—	-.009	.081	.917	—	—	—
Change in advertising spending	—	—	—	—	—	—	.009	.059	.880
<i>Control Variables</i>									
B2B versus B2C	-.143	.063	.022	-.144	.063	.022	.000	.058	.998
Firm size	-.081	.063	.197	-.080	.063	.202	.073	.061	.232
Foreign ownership	-.050	.063	.424	-.051	.063	.419	.118	.055	.031
Past sales growth	.025	.083	.761	.025	.083	.765	.080	.067	.234
Change in prices	—	—	—	—	—	—	.096	.067	.150
Change in wages	—	—	—	—	—	—	.142	.072	.051
Change in number of employees	—	—	—	—	—	—	.097	.062	.121
R-square	.034	.025	.163	.034	.025	.160	.153	.040	<.001

Notes: Standardized solution; p-values are two-tailed.

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