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The Performance Implications of Designing Multiple Channels to Fit with Strategy and Environment

Applying a configuration-theoretic approach to study multiple channels, the authors hypothesize that multiple-channel systems make their greatest contributions to firm performance when their structures are properly aligned with their firms' business-level strategies and with environmental conditions. A conceptual model incorporating these variables is supported in an empirical study of responses from executives at 291 electronic component manufacturers. The results confirm the existence of two theoretically ideal configurations. As hypothesized, channels in these ideal configurations make greater contributions to their firms' performance than do channels in alternative configurations. Moreover, a profile deviation analysis shows that a channel system's contribution to its firm's performance is greatest when that channel system's structural profile is closest to the profiles of top-contributing channel systems operating under similar strategic and environmental conditions. The authors present specific guidelines to help managers design distribution systems for different combinations of environment (e.g., with high and low dynamism, munificence, and diversity) and strategy (cost leadership and differentiation).

The strategic role of distribution channels has been recognized for decades (see Dwyer and Welsh 1985), and it is even more critical in light of the proliferation of channel options available today. Forces such as globalization and the Internet have added greatly to the choices available to channel managers. Most firms, whether large or small, business-to-business or retail, now employ some form of Internet channel, and typically, these newer channels do not replace existing channels but rather are added to or combined with them (Wilson and Daniel 2007). Thus, it is increasingly common for firms to employ online channels along with sales force channels, sales representative channels, dealer channels, catalog channels, and call-center channels and to rely on these complex combinations as a source of competitive advantage (Rosenbloom 2007).

Consistent with these trends, academic research has begun to focus greater attention on multiple-channels strategy. Studies have examined topics such as how the addition of Internet channels affects a firm's market valuation (e.g., Cheng et al. 2007; Geyskens, Gielens, and Dekimpe 2002), how firms might achieve an optimal mix of different types of channels (Sharma and Mehrotra 2007), and how firms undertake dynamic transformation in combining new and existing types of channels (Wilson and Daniel 2007), but a framework that has the potential to integrate and to expand current knowledge on the topic is still missing. More important, perhaps, multiple channels have not yet been linked to the business-level strategy of the firm despite the increasingly important role of channels in the firm's competitive strategy (Rosenbloom 2007). Facing disparate company goals, resources, and competitive environments, managers have little direction from the current literature that will allow them to achieve maximum benefits from their multiple channels.

The current research addresses these issues with a configuration-theoretic approach (see Miller 1996; Miller and Friesen 1984) that treats multiple channels as systems and examines the fit—or coalignment—between multiple-channel system structure, business-level strategy, and environmental conditions. By synthesizing extant literature, we hypothesize two ideal configurations of business strategy, multiple-channel structure, and environment and verify their existence with data from a survey of 291 manufacturing firms. As we hypothesize, channel systems with theoretically ideal configurations make greater contributions to their firms' performance than do channel systems for which environment, strategy, and structure are misaligned. With the addition of a profile deviation analysis (Venkatraman 1989), we demonstrate further that a channel system's contribution to its firm's performance is directly related to the difference between that channel system's structural profile and the structural profile of top-contributing channel systems that operate under similar strategic and environmental conditions. Overall, our results demonstrate that multiple-channel systems make their greatest contributions to firm

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To read and contribute to reader and author dialogue on JM*, visit http://www.marketingpower.com/jmblog.*

ISSN: 0022-2429 (print), 1547-7185 (electronic)

Journal of Marketing
Vol. 71 (October 2007), 195–211

performance when their structures are properly aligned with the business strategy of the firm and with the environment.

Our study contributes to the literature in the following ways: First, from a broader perspective, this is the first study to focus explicitly on the important linkage between business-level strategy and multiple-channel design. In doing so, it responds to the call for more strategically oriented research in marketing (e.g., Webster 2005) and, more specifically, to the need for a new area of research linking channel configurations to competitive strategy (Rosenbloom 2007). Second, to the best of our knowledge, this is the first study to conceptualize multiple-channel systems within a configuration-theoretic framework. Although configuration theory has been used extensively in strategic management (e.g., Miller 1996; Miller and Friesen 1984) and more recently in marketing (Vorhies and Morgan 2003), it has never been used to examine channel systems, despite its conceptual and practical relevance to inter- and intraorganizational structures (Bensaou and Venkatraman 1995). We use this approach to synthesize myriad bivariate relationships that have previously been found between elements of channel structure, environmental conditions, and business-level strategy. Our results demonstrate the value of using a holistic approach that can conceptualize multiple channels as systems rather than as multiple individual channels. For practitioners, our results indicate that there is more than one combination of channel structure, business strategy, and environment that can lead to high performance. We suggest two sets of specific guidelines for designing multiple-channel systems such that the number of individual channels, the relative proportion of direct channels, and the overall degree of channel bureaucratization best fit with the firm's business strategy and environmental conditions. Our results demonstrate that when managers improve this fit, their channel systems will make greater contributions to the sales, profits, and growth of the firm.

The article proceeds with an elaboration of configuration theory, the application of configuration theory to channels of distribution, and the specific dimensions on which our configuration model is based. Then, we present hypotheses and an empirical test of our model, including a cluster analysis to confirm the hypothesized configurations and a profile deviation analysis of the fit between multiple-channel structure and business strategy and environmental conditions. We conclude with a discussion of our findings and their implications for managers and researchers.

Configuration Theory

Configurations have been described as "common alignments among elements" (Miller 1996, p. 507), gestalts or archetypes (Dess, Newport, and Rasheed 1993, p. 780), and "multidimensional constellation(s) of the strategic and organizational characteristics of a business" (Vorhies and Morgan 2003, p. 102). In practical terms, a configurational approach to theory building and data analysis is geared to finding common natural clusters among the elements of interest—typically, elements of strategy, structure, and environment (Miller and Friesen 1984). In configuration theory, the concern is with the "fit" or coalignment among the elements: Each configuration is a gestalt of bidirectional causal loops with no strictly dependent or independent elements and no assumptions of linearity (Miller 1986, 1990; Miller and Friesen 1984). This holistic perspective stands in contrast to a reductionist perspective in which the coalignment between two or more multidimensional constructs is understood in terms of a series of pairwise relationships. The gestalts of configuration theory have been identified as most appropriate for assessing the fit—or internal coherence—of a set of more than two theoretical attributes in cases in which particular linear relationships are not specified (Venkatraman 1989).

We extend configuration theory to multiple-channel systems by positing that common natural clusters of strategy, structure, and environment exist for multiple-channel systems just as they do for organizations. Although it has not been explicitly articulated as such, much of the channels literature has used a traditional reductionist approach in which an extensive array of linear, often bivariate relationships has been found to exist between elements of channel structure, environment, and performance (see Dwyer and Oh 1987; Geyskens, Gielens, and Dekimpe 2002). The construction of configurations of channel structure, business-level strategy, and environmental conditions builds on this literature and, by relaxing restrictions of unidirectional causality, provides a parsimonious way to synthesize the more fragmented pieces of knowledge that have been produced over the years. In addition, this holistic approach allows us to integrate findings regarding business-level strategy into the existing channel/environmental knowledge base and to extend findings regarding simple channels to multiple-channel systems.

Configuration Dimensions: Business Strategy, Environment, and Channel Structure

Business strategy. Business strategy defines the manner in which firms compete in a specific industry or market (Walker and Ruekert 1987). The two dominant classifications of business strategy are Porter's (1980) typology, which focuses on customers and competitors, and Miles and Snow's (1978) typology, which focuses on innovation or the rate of product-market change (Olson, Slater, and Hult 2005; Walker and Ruekert 1987). Although Vorhies and Morgan (2003) successfully include Miles and Snow's typology in their study of intraorganizational configurations, our model incorporates Porter's typology because of its extensive use in analyses of fit in the strategic management literature (e.g., Marlin, Hoffman, and Lamont 1994) and because of its relevance to channels. Porter's original typology includes three generic strategies: differentiation, cost leadership, and focus. Differentiation strategies aim to develop a competitive advantage through innovative designs or uniquely attractive images (Porter 1980) and thus require strong marketing capabilities, well-designed products, a reputation for quality, a good corporate image, and strong cooperation from marketing channels (Miller 1986). Firms following the cost leadership strategy strive to produce goods and services at a lower cost than competitors (Miller 1986; Porter 1980) and therefore stress the use of efficient marketing channels along with effective, well-refined sys-

tems for purchasing, logistics, and manufacturing (Hambrick 1983). Whereas differentiation and cost leadership strategies are positioned as opposite generic strategies, the focus strategy is defined according to scale and refers to a niche strategy that concentrates attention on a particular type of customer, product, or geographical location. Typically, the focus strategy is combined with either the differentiator or the cost leadership strategy, resulting in a differentiator or cost leader niche strategy. Subsequent to Porter's original typology, researchers have identified various hybrid combinations of the basic generic strategies, such as the differentiated cost leader strategy (e.g., Marlin, Hoffman, and Lamont 1994).[1]

Environment. Although literature has identified many different environmental dimensions, three are viewed as particularly important and have been included in a majority of channels and configuration studies: dynamism, complexity, and munificence (e.g., Achrol and Stern 1988; Duncan 1972; Dwyer and Welsh 1985; Klein, Frazier, and Roth 1990; Miller and Friesen 1983). As Dess and Beard (1984) suggest, these three dimensions are conceptually similar to those proposed by other researchers (e.g., Mintzberg 1979; Pfeffer and Salancik 1978), but they are more inclusive than other simpler dimensions. Dynamism, or volatility, is the frequency of environmental change coupled with the unpredictability of market factors (Homburg, Workman, and Krohmer 1999). Complexity refers to the number and diversity of competitors, suppliers, buyers, and other environmental actors that firm decision makers need to consider in formulating their strategies (Bourgeois 1980; Duncan 1972). The larger and more diverse the interaction set, the higher is complexity (Aldrich 1979). Munificence refers to the resource-carrying capacity of firms, the extent to which environmental resources are available and accessible to firms (Aldrich 1979), and the state of demand (Achrol and Stern 1988). Low munificence means scarce resources, whereas high munificence implies an abundance of resources (Lawless and Finch 1989).

Channel structure. Channel structure refers to the pattern of relationships, authority, and communication in the channel organization (Thompson 1967). Consistent with the structural–structuring distinction that has been made in the organizational literature (see Dwyer and Oh 1987), we examine two subdimensions of multiple-channel structure: (1) physical structure and (2) decision structure. In multiple-channel systems, the physical structure can be characterized by two key properties: the number of channels and the degree of channel directness (Coelho, Easingwood, and Coelho 2003). Channel number refers to the total number of different channels used, and channel directness refers to the proportion of integrated (direct) channels to independent (indirect) channels used within the system.

Channel decision structures can be viewed as having three primary dimensions: formalization, centralization, and specialization, which, taken together, indicate whether channel activities are arranged in a bureaucratic or an organic manner (see Dwyer and Welsh 1985; John 1984). Formalization is the degree to which decision making is regulated by formal rules and procedures (Dwyer and Welsh 1985; Workman, Homburg, and Gruner 1998), and relationships among channel members are governed by rules, procedures, and contracts (John and Martin1984; Ruekert, Walker, and Roering 1985). Centralization pertains to the locus of decision-making authority, reflecting the degree to which authority is concentrated within a particular member of the channel (Dwyer and Welsh 1985; Jaworski and Kohli 1993). Specialization pertains to the division of labor and represents the amount of task differentiation within the channel (Dwyer and Welsh 1985).

[1]Because this is an initial attempt to apply configuration theory to channels, we limit our hypotheses to the differentiation and cost leader strategies, but we employ measures that are capable of detecting hybrid strategies.

Research Hypotheses

We develop three hypotheses. The first posits the existence of specific configurations of multiple-channel structure, business strategy, and environmental conditions. Consistent with classical configuration theorists (e.g., Miller 1986), the first hypothesis addresses the fit among the configuration dimensions without reference to any specific criterion variable (Venkatraman 1989). The second hypothesis relates the hypothesized configurations to a criterion variable—specifically, to the channel's contribution to overall firm performance. We posit that channel systems in configurations in which strategy, environment, and channel structure are properly aligned make greater contributions to their firms' performance than channel systems in configurations in which strategy, environment, and channel structure are misaligned. The third hypothesis further assesses fit with a profile deviation approach (Venkatraman 1989). Specifically, we posit that a channel system's contribution to firm performance is a function of the deviation—or distance—of its structural profile from the profile of top-contributing channel systems operating under similar strategies and environmental conditions.

Configurations of Business-Level Strategy, Channel Structure, and the Environment

We hypothesize coalignments among the configuration dimensions on the basis of a synthesis of literature that has established the following pairwise linkages: strategy and environment, environment and structure, and strategy and structure.

Strategy and environment. Theory and empirical evidence suggest that different strategies work best in different types of environments (Homburg, Workman, and Krohmer 1999; Miller 1986; Ward, Bickford, and Leong 1996). In dynamic, complex environments, in which there are many different customer groups with diverse needs, the innovation and customization aspects of differentiation become more desirable (Porter 1980). The more uncertain the environment, the more useful it is to employ differentiation strategies that are based on well-planned marketing activities or product-market innovation (Marlin, Hoffman, and Lamont 1994). Highly munificent environments provide the resources needed for innovation and differentiation (Porter

1980; Ward, Bickford, and Leong 1996). In contrast, literature suggests that because of the need for routinized and formalized operating procedures, the cost leadership strategy works best in less uncertain, more stable environments (Porter 1980). Such environments, characterized by low complexity and low dynamism, minimize the risks associated with the large fixed investments needed to sustain low unit costs (Marlin, Hoffman, and Lamont 1994; Miller 1986). Because neither customers nor competitors substantively alter their behaviors or strategies, firms do not need to stay up to date by innovating new products or modifying their offerings. Furthermore, in less munificent environments with limited resources, firms can focus on improving efficiency and, thus, lowering their costs without needing to tailor products to the changing needs of consumers (Hambrick 1983; Miller 1991; Ward, Bickford, and Leong 1996).

Environment and structure. Although decentralized, informal structures are typically needed to respond to fast-changing and highly complex environments, highly formalized and centralized structures are viewed as best in stable, less complex, and less munificent environments (Miller 1986, 1991; Ward, Bickford, and Leong 1996). In stable environments in which firms can predict factors such as raw material supplies, customer demand, and operational requirements, structures that stress formalization and centralization are often associated with superior performance (Burns and Stalker 1961; Lawrence and Lorsch 1967). Centralization of either internal or external organizational structures can lead to better coordination and control, which in turn can lead to higher performance. However, this positive relationship holds only in stable, noncomplex environments (Ruekert, Walker, and Roering 1985).

Consistent with the organizational theory literature, in general, the channels literature supports the notion that different environments have different structural requirements. For example, in general, less complex, less dynamic, and less munificent environments are viewed as promoting channel structures that are centralized, formalized, and less specialized (Dwyer and Welsh 1985; Lawrence and Lorsch 1967). Conversely, dynamic, complex, munificent environments tend to favor relatively decentralized, informal, specialized channels (Dwyer and Oh 1987; Dwyer and Welsh 1985; Lawrence and Lorsch 1967) as well as multiple-channel systems with a greater number of channels (Anderson 1985; Moriarty and Moran 1990). In addition, as transaction cost theory argues, uncertain environments tend to favor integrated channels (e.g., Anderson and Schmittlein 1984; Heide 1994; John and Weitz 1988) and the use of in-house sales forces (Anderson 1985).

Strategy and structure. The only study to relate business-level strategy directly to marketing channels is an investigation of channel integration in foreign markets (Aulakh and Kotabe 1997). Arguing that direct, integrated channels fit the differentiator's need to project a consistent, unique image, Aulakh and Kotabe (1997) find that the differentiation strategy was significantly related to the use of wholly owned subsidiaries. In addition to this study, we rely on the extensive literature that links Porter's (1980) generic strategies to general organizational structure to posit linkages between strategy and channel structure. For example, multiple studies have found that a differentiation strategy calls for a decentralized, informal, and specialized organizational structure (Miller 1986; Ward, Bickford, and Leong 1996). Such structures support a differentiator's need to be close to a variety of customers and to be aware of competitors' actions (Miller 1987). In addition, specialized structures with a wide range of unique skills and well-defined division of labor can better perform complex activities, such as those required of a differentiation strategy (Ruekert, Walker, and Roering 1985). In contrast, the tight control required by a cost leadership strategy means that an ideal organization for cost leaders is highly formal, centralized, and unspecialized (Hambrick 1980; Ruekert, Walker, and Roering 1985; Walker and Ruekert 1987). In such structures, formal rules and procedures help routinize activities and hold down risk and administrative costs (Walker and Ruekert 1987). Specialized structures with teams and functional allocation would not be likely to provide the efficiency required by this strategy (Ruekert and Walker 1987). Because the main objective of cost leaders is cost reduction, available resources can be more productively deployed to simplify structures, increase structural formalization and centralization, and develop a narrow range of capabilities (Slater and Narver 1993).

Formal properties of configurations. We rely on four formal properties that all configurations share (Miller 1990) to integrate the previously described pairwise linkages and to specify our hypotheses: interdependence, robustness, cyclicality, and reciprocity. Interdependence, which holds within and across variable categories (i.e., within the various components of structure—centralization, formalization, and so on—and across structure, strategy, and environment), implies that "once some aspects of strategy or structure are established, many others begin to fall into place" (Miller 1990, p. 781). Robustness implies that it is possible to begin describing the configuration relationships at any point (i.e., strategy, structure, or environment), and the same configuration will result. Cyclicality means that "one connection leads to another, creating chain linkages" (Miller 1990, p. 782). Thus, linkages between strategy and environment and between environment and channel structure can be extended to link strategy and channel structure. Finally, reciprocity means that, in configurations, one factor, A, can cause another factor, B, but then in turn, B will promote A. By applying this framework to the previously discussed pairwise linkages that exist between strategy, environment, and channel structure, we hypothesize the following configurations:

H_{1a}: There is a configuration of firms operating in highly uncertain and munificent environments that combine a differentiation strategy with an organic, specialized channel decision structure and a large number of mostly direct channels.

H_{1b}: There is a configuration of firms operating in less uncertain, less munificent environments that combine a cost leadership strategy with a bureaucratic, unspecialized channel decision structure and a limited number of mostly indirect channels.

Channel Contribution to Firm Performance in the Hypothesized Configurations

Given that much of the previously cited literature refers to optimal relationships between strategy, structure, and environment, in general, we expect that channels in our two hypothesized configurations will make greater contributions to their firms' performance than will channels with alternative configurations. Thus, we hypothesize the following:

H_2: Multiple-channel systems with the configurations characterized in H_{1a} and H_{1b} make greater contributions to overall firm performance than multiple-channel systems with alternative strategy–environment–channel structure configurations.

Performance Implications of Channel Structure's Coalignment with Environment and Strategy

Having hypothesized the existence of high-performing configurations, in the third hypothesis, we wanted to delve more deeply into the drivers of channel contribution to firm performance, specifically with respect to the coalignment of channel system structure with strategy and environment. Following Venkatraman (1989) and Vorhies and Morgan (2003), we used a profile deviation approach to conceptualize this problem. A profile deviation approach is appropriate in situations in which the concern is with the assessment of the fit among multiple variables relative to a criterion variable (Venkatraman 1989). It complements the configuration approach in that it addresses the degree of adherence to a specific profile rather than the coalignment between elements of the configurations. More specifically, a profile deviation approach conceptualizes fit as the degree to which an organization's profile characteristics differ from those of a profile identified as ideal in terms of a specified criterion variable, where difference is operationalized as Euclidean distance (e.g., Venkatraman 1989; Vorhies and Morgan 2003). Because we are interested in channel structure coalignment with strategy and environment, we examine the deviation of each channel system's structural profile from the profiles of top-contributing channel systems operating within a similar business strategy and a similar environment. We hypothesize that a channel system's contribution to firm performance is a function of the distance between its structural profile and the profile of the top-contributing channel systems operating within the same business strategy and environment. More specifically,

H_3: The more similar a channel system's structural profile is to the profile of top-contributing channel systems sharing the same business strategy and environmental conditions, the greater is the contribution of that channel system to its firm's performance.

Method

Research Context and Sample

To isolate the relationships of interest and to control for potentially confounding industry-specific factors, this study focused on a single industry consisting of manufacturers of electronic components, such as receiving antennas, switches, and waveguides (Standard Industrial Classification Group 3679). Primary data were collected from sales/marketing managers who had been confirmed in preliminary interviews to be the qualified key informants in charge of channel design and strategies. Supplemental data about channel contribution to firm performance were collected from a top-level executive in each firm. The top-level executives were identified with a snowballing method in which the key informants were asked to give a performance-only questionnaire to a top-level executive. The shorter questionnaire was enclosed along with the full questionnaire in a separate envelope that was to be sealed by the top-level executive and returned to the key informant, who returned both questionnaires to the researcher.

The sample consisted of 925 electronic components manufacturers randomly selected from Dun & Bradstreet's online directory. Before administration of the survey, a sales/marketing executive of each firm was contacted by telephone to verify company and informant characteristics. The executives were asked to describe briefly the channel systems their firms used. On the basis of their descriptions, 913 firms were identified as using multiple-channel systems, and the remaining 12 firms were excluded from the sample. Managers from all 913 firms agreed to participate in the study. They were asked to respond to the questionnaire in terms of the entire distribution system used in their business units.[2] In cases in which a business unit had different subunits for different markets or products, the managers were asked to refer only to the unit responsible for the most important market or product.

Data Collection, Response Rate, and Nonresponse Bias

We used an incentive—a donation of $2 to a charity of the respondent's choice—along with multiple contacts to maximize the response rate. Each respondent received three contacts in addition to the initial screening contact. The study packages, which included a cover letter with instructions, two sets of questionnaires, and return envelopes, were mailed to the sales/marketing executives of the 913 firms. Two weeks after the initial mailing, reminder postcards were mailed to all the firms, and two weeks after that, follow-up telephone calls were made to 300 randomly chosen firms to ask informants who had not yet responded to do so. This procedure yielded 305 midlevel executive questionnaires, 14 of which were eliminated because they were not accompanied by a top-level executive's questionnaire. The result was a total of 291 matched questionnaires, for a 31.8% overall response rate. The final data set consisted of firms that, on average, employed 63 employees—a number that closely matched the industry average of 77 (1997 Economic Census); of the firms, 26% reported having fewer than 40 employees, 27% reported having 41–60 employees, 25% reported having 61–100 employees, and 22% reported having more than 100 employees.

To evaluate possible nonresponse bias, we used two methods. First, following Mentzer, Flint, and Hult's (2001)

[2]We defined a business unit as a division or subsidiary of a company that operates independently.

guidelines, we telephoned a random sample of 32 nonrespondents and asked them five questions randomly selected from our research instrument. In addition, we asked two questions pertaining to their tenure in their current positions and the number of employees in their firms. The t-tests of group means revealed no significant differences between our sample and the nonrespondents, suggesting that nonresponse bias was not a concern. Second, we compared early and late survey respondents on the study variables (Armstrong and Overton 1977). Respondents who returned completed questionnaires in the first three weeks were the early respondents (n = 195), and those who responded later were the late respondents (n = 96). The lack of significant differences between the early and late respondent groups on key measures provided additional evidence that nonresponse bias was not a problem.

Key informant competency checks. The questionnaire included post hoc checks on the informants' knowledge about and experience with the company and its channels of distribution, consistent with Campbell's (1955) criteria. The results showed that, on average, the key informants had been working for their firms for 10.96 years (SD = 3.34) and had occupied their current positions for an average of 8.10 years (SD = 2.72). Furthermore, when asked to evaluate their level of knowledge about their company in general and their company's channels of distribution in particular, on average, the respondents gave scores of 9.05 (SD = 1.01) and 9.34 (SD = .84) out of 10 points, respectively. These results confirm the knowledge and experience of the key informants used in this study.

Multiple informants independence check. An important assumption in using multiple informants is that "random measurement errors across informants' responses are uncorrelated" (Anderson and Narus 1990, p. 46). This assumption is violated if there is collusion in answering the questionnaires or if only one respondent answers both questionnaires for a given firm. To ensure that this independence assumption was not violated in our data, we checked the correlation between the responses of both informants from each firm across the nine items that measured contribution of the channel to firm performance and found correlation coefficients ranging between .73 and .84. Thus, in no case did the correlation coefficient exceed .99—a level that would have suggested that the independence assumption was untenable (see Anderson and Narus 1990). An average correlation of .79 was high enough to ensure the compatibility of responses from top and middle managers for each item but not so high as to endanger the independence assumption (Anderson and Narus 1990). As a result, it was not necessary to delete additional respondents from the sample.

Measures

Whenever possible, we used measures from previous research and modified them for our study. We list our specific scale items in the Appendix, along with their literature sources, reliabilities, and item loadings. We measured all the variables, with the exception of channel physical structure, with seven-point Likert-type scales. Our discussion here is limited to the only measures that are not well established in the channels and/or strategic management literature: channel physical structure (channel number and directness) and contribution of channels to firm performance (our criterion measure). To measure physical structure (i.e., channel number and directness), we presented our respondents with the following channel system alternatives and asked them to mark the ones used by their business units:

- Company–distributor–customer,
- Company–sales agent/broker–customer,
- Company–sales agent/broker–distributor–customer,
- Company–company sales branch/office–customer,
- Company–company sales force–customer,
- Company–company catalog–customer, and
- Company–company Web site–customer.

We developed this list on the basis of a review of the academic and trade literature coupled with prestudy interviews of industry executives. Whereas the first three alternatives represent indirect channels, the remaining four represent direct channels used by manufacturers. Although we intended the list to be comprehensive, we asked respondents with channel systems not included in the list to add those channel systems in a space that was provided. Our measure of channel number was simply the number of channels that each business unit used. The range on this item was 2 to 7 channels, with a mean of 4.05. We calculated our measure of channel directness as the ratio of the number of direct channels to the number of indirect channels used by the respondent's business unit. This measure ranged from .3 to 4.0, with a mean of 1.54.

We operationalized contribution to firm performance in terms of the channel system's (1) contribution to overall sales, (2) contribution to business profit, and (3) contribution to growth. Because different firms with different priorities are likely to weight profits, sales, and growth differently, we asked respondents to assign a value between one and ten to reflect the importance of each dimension for their business unit, and we used these importance weights to construct the overall composite score for the channel system's contribution to firm performance for each respondent.

To check the validity of our criterion variable from multiple respondents from each firm, we examined mean differences between scores from the midlevel and top-level executives (e.g., Hughes and Garrett 1990; Vorhies and Morgan 2003). The mean differences were not significant. Furthermore, the average correlation between the two key respondent scores across nine items was .79. On the basis of these results, we added the scores of mid- and top-level executives to form a composite measure of channel contribution to firm performance. Thus, our measure reflected both perspectives from each firm.

Psychometric Analyses

We evaluated the measurement properties of the constructs in two confirmatory factor analyses using LISREL 8.71 (Jöreskog, Toit, and Toit 2000). To ensure that we did not violate the ratio of sample size to number of items (Jöreskog and Sörbom 1995), we divided the set of scales

into two subgroups: (1) business strategy, decision structure, and environmental variables and (2) channel contribution to firm performance items. We evaluated the model fits using a series of indexes that Gerbing and Anderson (1992) and Hu and Bentler (1999) recommend, including a goodness-of-fit index (GFI), a comparative fit index (CFI), and the root mean square error of approximation (RMSEA). All indexes met or exceeded the critical values for acceptable fit (Model 1: $\chi^2 = 728.54$, d.f. = 416, $p < .01$; CFI = .93; GFI = .91; and RMSEA = .05; Model 2: $\chi^2 = 426.78$, d.f. = 221, $p < .01$; CFI = .92; GFI = .94; and RMSEA = .08), suggesting a satisfactory fit across the models tested.

We assessed the convergent validity of the measures by examining the path coefficients (loadings) for each latent factor to their manifest indicators. The analysis indicated that all items loaded significantly on their corresponding latent factors (for item loadings, see the Appendix). We assessed discriminant validity by examining the shared variance between all possible pairs of constructs in relation to the average variance extracted for each individual construct (Anderson and Gerbing 1982; Bagozzi and Yi 1988). As we expected, the former was much lower than the latter (see Table 1).

To assess the nomological validity of the channel contribution to firm performance measure, we examined its correlation with a measure of global channel performance. The latter consisted of a four-item scale that Kumar, Stern, and Achrol (1992) developed; the items reflected respondents' overall impressions and summary evaluations of their multiple-channel systems (see the Appendix). A reasonably high correlation of .72 ($p < .05$) supported the nomological validity for a critical measure in our theory testing. For criterion or predictive validity purposes, we included the following item: "How likely is your company to reorganize/rearrange your current channel system in the near future?" (1 = "very unlikely," and 7 = "very likely"). As we expected, the measure of channel contribution to firm performance correlated negatively with responses to this item (r = –.52, $p = .01$). For summary statistics and the correlation matrix for all scales, see Table 1.

Analysis and Results

H_1: The Existence of Hypothesized Configurations

We used a two-stage cluster procedure to verify the existence of our proposed configurations, thus taking advantage of the strengths of two different clustering approaches (Punj and Stewart 1983). In the first stage, we used the hierarchical clustering algorithm that Ward (1963) developed in combination with Sarle's cubic clustering criterion and pseudo-T-square (Johnson 1998). Both statistics indicated a four-cluster (i.e., a four-configuration) solution. To ensure that the hierarchical solution was unaffected by sampling variance (Cannon and Perreault 1999), we repeated the cluster analysis for eight subsamples, in which each randomly selected subsample included two-thirds of the complete set of observations. As we expected, the initial solution of four clusters was reconfirmed. In the second stage of the cluster analysis, we used the k-means approach to assign observations to one of the clusters so that the clusters were stable, homogeneous within themselves, and heterogeneous among one another. Table 2 shows the means of variables and the number of observations within each cluster. We assessed the validity of the clusters using a variable that is directly related to the clustering variables but that was not included in the cluster analysis (Ketchen and Shook 1996)—specifically, the firm's market position with respect to manufacturing costs, marketing/distribution costs, brand image, advertising, and product quality (Kim and Lim 1988). As we expected, clusters in which firms followed a differentiation strategy (Clusters 2 and 4) scored significantly higher on this scale than did clusters in which firms followed a cost leader strategy (Clusters 1 and 3), thus providing evidence for the validity of the clustering results.

The final step in the cluster analysis was to validate the recognizability of the clusters and to verify whether they had meaningful implications. As Cannon and Perreault (1999) suggest, we used the probability levels associated with Duncan's multiple range tests as a heuristic for identifying similarities and differences among the variables within the clusters. We transferred the resultant bands into

TABLE 1
Correlations and Descriptive Statistics

	1	2	3	4	5	6	7	8	9
1. Differentiation	1.00								
2. Cost leadership	–.670	1.00							
3. Formalization	–.502	.513	1.00						
4. Centralization	–.422	.385	.297	1.0					
5. Specialization	.483	–.452	–.378	–.298	1.00				
6. Environmental complexity	.451	–.339	–.212	–.433	.229	1.00			
7. Environmental dynamism frequency)	.473	–.371	–.308	–.358	.271	.329	1.00		
8. Environmental dynamism (predictability)	.489	–.415	–.347	–.353	.297	.371	.587	1.00	
9. Environmental munificence	.258	–.459	–.401	–.381	.337	.371	.416	.421	1.00
M	4.78	4.45	4.13	4.08	4.01	4.23	3.87	4.11	3.71
SD	1.15	1.24	1.16	1.43	1.35	1.51	1.56	1.50	1.42
Average variance extracted	.65	.62	.66	.71	.68	.67	.66	.65	.69
Highest shared variance	.12	.11	.09	.12	.07	.11	.07	.10	.11

Notes: All correlations are significant at the $p < .05$ level.

TABLE 2
Cluster (Configuration) Description by Variables

Dimensions	Cluster 1 (Nonideal) (n = 69)	Cluster 2 (Nonideal) (n = 62)	Cluster 3 (Ideal) (n = 78)	Cluster 4 (Ideal) (n = 82)	1–2	1–3	1–4	2–3	2–4	3–4
Differentiation	2.96 (low)	5.06 (high)	2.78 (low)	5.32 (high)	*	n.s.	*	*	n.s.	*
Cost leadership	5.02 (high)	3.56 (low)	5.15 (high)	2.95 (low)	**	n.s.	*	**	n.s.	*
Formalization	5.09 (high)	3.43 (medium)	5.26 (high)	2.68 (low)	**	n.s.	*	**	**	*
Centralization	4.69 (high)	4.01 (medium)	5.19 (high)	2.76 (low)	**	n.s.	*	*	*	*
Specialization	4.08 (medium)	4.37 (medium)	2.95 (low)	5.27 (high)	n.s.	**	**	**	**	*
Environmental complexity	4.13 (medium)	4.30 (medium)	3.28 (low)	5.29 (high)	n.s.	**	*	**	**	*
Environmental dynamism (frequency of change)	4.27 (medium)	3.41 (low)	3.17 (low)	4.96 (high)	**	*	*	n.s.	*	*
Environmental dynamism (predictability of change)	4.98 (high)	3.84 (medium)	2.92 (low)	5.21 (high)	*	**	n.s.	*	*	*
Environmental munificence	3.17 (low)	4.07 (medium)	2.72 (low)	5.10 (high)	**	n.s.	*	**	*	*
Number of channels	4.51 (high)	3.91 (medium)	3.01 (low)	4.77 (high)	**	*	n.s.	**	**	*
Channel directness	1.45 (medium)	1.10 (low)	.90 (low)	2.45 (high)	**	**	*	n.s.	*	*
Multiple-channel contribution to firm performance	188.16 (low)	197.57 (low)	225.45 (high)	236.58 (high)	n.s.	**	**	*	**	n.s.

*$p < .05$.
**$p < .01$.
Notes: n.s. = not significant.

verbal descriptions of each cluster's position with respect to the cluster variables (Bunn 1993), assigning the means of cluster variables into ranges (from low to high) to interpret the clusters.

Each of the resultant four clusters in Table 2 represents a configuration of multiple-channel structure, business strategy, and environment for this industry. Configurations 3 and 4 supported H_{1b} and H_{1a}, respectively, and Configurations 1 and 2 exhibited combinations that deviated from our theoretical ideals.[3] None of the configurations exhibited characteristics of hybrid strategies, as would be indicated by a combination of high or low scores on both differentiation and cost leader scales. Rather, Configurations 1 and 3 appeared to be traditional cost leaders, and Configurations 2 and 4 appeared to be traditional differentiators. Configuration 3 fit the theoretically ideal configuration specified in H_{1b}. In addition to following cost leader strategies, the firms in this configuration had bureaucratic channel decision structures that were highly centralized and formalized with little specialization. As we expected, these firms operated in environments that were particularly conducive to their cost leadership strategies—that is, simple environments, with low dynamism and scarce resources. Finally, as our theory predicted, these ideal cost leaders used a small number of mostly independent channels to reach their customers. The second ideal configuration, Configuration 4, fit the specifications in H_{1a}. These differentiators had the most organic channel decision structures, as indicated by the lowest formalization and centralization and the highest specialization mean scores. All the environmental variables manifested high values in a consistent way, suggesting that the firms in this configuration operated in rich, but dynamic and complex, environments. In terms of their physical channel structures, these firms employed many different channels to serve their customers, and most of the channels were integrated—that is, owned and managed by the firms themselves.

Contrary to what theory advocates for cost leaders, firms in Configuration 1 employed a large number of channels with a medium level of directness to reach their customers. Their channel decision structures were mostly bureaucratic, with high scores on formalization and centralization, but they also exhibited a moderate degree of specialization. Environments in this configuration tended to be mixed, with moderate levels of complexity, highly predictable but moderately frequent levels of change, and a scarcity of resources. In contrast, firms in Configuration 2 faced environments that scored in the medium range on most dimensions. These differentiator firms appeared to align their channel structures with their environments rather than with their strategies. They employed channel structures that were neither clearly bureaucratic nor organic; all channel decision variables had medium scores. In addition, they employed a middle-range number of indirect channels to reach their customers, a channel design that ran counter to the ideal for their differentiation strategies.

[3]We repeated the cluster analysis and included company size as a control variable. The analysis yielded a four-cluster solution with similar characteristics, confirming the existence of the two hypothesized clusters in H_{1a} and H_{1b}.

H_2: Channel Contribution to Firm Performance: A Comparison Across Configurations

To support H_2, we needed to demonstrate that the two ideal configurations—Configurations 3 and 4—exhibited higher channel contribution to firm performance than Configurations 1 and 2. As Table 2 indicates, the means of channel contribution to firm performance for Configurations 3 (225.45) and 4 (236.58) were higher than the means for Configurations 1 (188.16) and 2 (197.57). In addition, as we expected, the results of Duncan's multiple-range tests indicated that the channel contribution to firm performance was categorized as high in Configurations 3 and 4 and low in Configurations 1 and 2 (see Table 3). To show that the differences in the means were significant, we analyzed pairwise comparisons of channel contribution to firm performance for all four configurations. As Table 3 indicates, all pairwise comparisons between an ideal and a nonideal configuration (i.e., 1–3, 1–4, 2–3, and 2–4) were significant at the .01 level, whereas comparisons of the two nonideal configurations (1–2) and the two ideal configurations (3–4) were not significant. Together, these results provide support for H_2.

H_3: Coalignment Between Channel Structure and Strategy and Environment

Our third hypothesis required that we group firms according to their business strategies and environmental conditions. Rather than attempting to base this grouping on an a priori categorical division that might not have been appropriate for this particular industry, we grouped firms with a clustering procedure using strategy and environment as the clustering variables. A two-stage cluster analysis generated four different strategy–environment combinations (see Table 4).

Within each strategy–environment cluster, we identified firms whose channel systems made the greatest contribu-

TABLE 3
Pairwise Comparisons of Channel Contribution to Performance

Cluster (X)	Cluster (Y)	Mean Difference (X–Y)	Significance
1	2	–9.41	.187
	3	–37.29*	.000
	4	–48.42*	.000
2	1	9.41	.187
	3	–27.88*	.000
	4	–39.01*	.000
3	1	37.29*	.000
	2	27.88*	.000
	4	–11.13	.240
4	1	48.42*	.000
	2	39.01*	.000
	3	11.13	.240

*$p < .01$.

TABLE 4
Cluster Descriptions by Variables (STR + ENV)

Dimensions	Strategy–Environment Combination 1 (n = 61)	Strategy–Environment Combination 2 (n = 72)	Strategy–Environment Combination 3 (n = 81)	Strategy–Environment Combination 4 (n = 77)	1–2	1–3	1–4	2–3	2–4	3–4
Differentiation	4.96 (high)	3.12 (low)	2.90 (low)	5.20 (high)	*	*	n.s.	n.s.	*	*
Cost leadership	3.03 (low)	4.89 (high)	5.28 (high)	3.13 (low)	*	*	n.s.	n.s.	*	*
Environmental complexity	4.20 (medium)	3.90 (medium)	3.10 (low)	5.20 (high)	n.s.	*	*	*	*	*
Environmental dynamism (frequency of change)	3.49 (low)	4.48 (medium)	2.74 (low)	5.10 (high)	*	n.s.	*	*	*	*
Environmental dynamism (predictability)	3.80 (medium)	4.29 (medium)	2.80 (low)	5.40 (high)	n.s.	*	*	*	*	*
Environmental munificence	4.23 (medium)	3.06 (low)	2.66 (low)	5.28 (high)	*	*	*	n.s.	*	*

*$p < .01$.
Notes: n.s. = not significant.

tions to firm performance, and we used these channel systems as our ideals (e.g., Drazin and Van de Ven 1985; Venkatraman and Prescott 1990). Although ideal profiles can be developed theoretically or empirically (Venkatraman 1990), given the difficulty of deriving ideal points theoretically in marketing, we followed the work of Vorhies and Morgan (2003) and used these top-contributing channel systems for our calibration samples (e.g., Doty, Glick, and Huber 1993; Venkatraman 1990; Vorhies and Morgan 2003). Consistent with conventional practice (e.g., Venkatraman and Prescott 1990), we selected the top 10% of channel systems within each cluster and computed the mean scores on each of the structure variables to form the ideal channel structure profile (e.g., Venkatraman 1989) (see Table 5) from which we calculated the squared Euclidean distance (e.g., Drazin and Van de Ven 1985; Venkatraman 1990) to profiles of the other channel systems in the cluster, as follows:[4]

$$\text{Profile deviation} = \Sigma(Xsj - Xcj)^2,$$

where Xsj is the score for a firm in the sample for the jth variable and Xcj is the mean score for the jth variable in the ideal type. This score represents the degree of dissimilarity between a channel system's structural profile and the ideal profile defined for channel systems in the same strategy–environment cluster. We regressed these profile deviation scores onto the deviation scores for channel contribution to firm performance (calculated as the difference between a channel system's contribution to performance and the mean of top-contributing channel systems). A significant, positive relationship between profile deviation scores and contribution-to-performance deviation scores supported H_3. Regression models for all four clusters showed significant, positive coefficients for deviations from the top channel system profiles (Cluster 1: $\beta = .49$, $p < .01$; Cluster 2: $\beta = .54$, $p < .01$; Cluster 3: $\beta = .60$, $p < .01$; Cluster 4: $\beta = .56$, $p < .01$).

[4]The literature uses either squared (e.g., Venkatraman 1990; Venkatraman and Prescott 1990) or simple (e.g., Vorhies and Morgan 2003) Euclidean distance as a profile deviation measure. We performed our analyses using both and observed no qualitative differences in findings.

In addition to this direct test of H_3, we performed profile deviation analyses to strengthen support and rule out alternative explanations. On the basis of researchers' (e.g., Venkatraman 1989) recommendations, we compared regression models of the deviations from ideal profiles with regression models of the deviations from an alternative random (nonideal) baseline model to assess the power of the hypothesis test. Following Venkatraman and Prescott (1990) and Vorhies and Morgan (2003), we randomly selected firms from each cluster and used them to calibrate the alternative baseline models. We regressed these channel structure profile deviation scores onto contribution-to-performance deviation scores (using the same random firms' mean contribution to performance as the baseline). The nonsignificant relationships between contribution-to-performance deviation and profile deviation in these random regression models provided confidence in the power of our tests (for results, see Table 6).

Discussion

In summary, the results provide strong support for the contention that multiple-channel systems make the greatest contribution to firm performance when their structures are properly aligned with the firm's business strategy and with environmental conditions. This is the first study to combine traditional configurational clustering with a profile deviation analysis to examine fit from multiple perspectives, as Venkatraman (1989) suggests. The robustness of results across the two models is reassuring. We found two primary configurations that were theoretically ideal, along with two additional configurations whose alignments did not fit theoretical ideals. As we hypothesized, channel systems in the two theoretically ideal configurations made significantly greater contributions to their firms' performance than did channel systems in the two other configurations. The importance of the fit between channel structure, business-level strategy, and environmental conditions was further underscored by the profile deviation analysis. We observed that the contribution of a given channel system to firm performance was a function of the distance between that channel system's structural profile and the structural profile of the top-contributing channel systems sharing its particular combination of business strategy and environmental conditions.

Together, these findings offer strong support for the inclusion of business-level strategy and environmental con-

TABLE 5
Ideal Channel Structure Profile for Strategy–Environment Combinations

Dimensions	Strategy–Environment Combination 1	Strategy–Environment Combination 2	Strategy–Environment Combination 3	Strategy–Environment Combination 4
Formalization	2.83	4.11	5.43	2.85
Centralization	3.10	4.14	5.30	2.90
Specialization	4.39	3.48	3.58	5.09
Number of channels	4.67	4.29	2.73	4.88
Channel directness	1.94	1.32	.93	2.73

TABLE 6
Coalignment Between Channel Structure and Strategy and Environment and Channel Contribution to Performance Regression Models

	Dependent Variable: Channel Contribution to Performance Deviation	
	Ideal Profile Models	Random Baseline Models[a]
Strategy–Environment Combination 1		
Profile deviation	.49	.14
R^2	.23	.12
F value	16.90*	3.01
Strategy–Environment Combination 2		
Profile deviation	.54	.11
R^2	.28	.10
F value	26.43*	2.96
Strategy–Environment Combination 3		
Profile deviation	.60	.16
R^2	.36	.15
F value	40.76*	4.32
Strategy–Environment Combination 4		
Profile deviation	.56	.15
R^2	.30	.12
F value	29.55*	3.68

*$p < .01$.
[a]Based on profile of seven firms randomly selected from each cluster.

ditions in both academic and managerial considerations of multiple-channel system structure. In addition, the equally strong contributions made by channel systems in the two ideal configurations demonstrate that there is no unique structure that makes multiple-channel systems most effective. These results support the principle of equifinality; that is, more than one configuration of strategy, structure, and environment can lead to superior performance when the elements are properly aligned with each other (e.g., Conant, Mokwa, and Varadarajan 1990). This is both comforting and challenging news for managers. It is comforting because there are multiple paths to success in a given industry, and these multiple paths provide a measure of flexibility for firms with different resources and long-term objectives. It is challenging because managers need to find the right mixes among the set of plausible combinations of strategy, environment, and channel structure. In the larger electronic components industry we investigated, for example, cost leader and differentiator firms can perform equally well if managers design their channel systems to conform as closely as possible to the ideal configurations for their respective strategic orientations.

For researchers, our results demonstrate the utility of using a holistic approach to examine multiple channels, lending support to our extension of the organizational structure literature to multiple channels and reinforcing the argument that multiple channels should be examined with a systems approach (e.g., Antia and Frazier 2001). Despite the widespread use of multiple channels by today's firms, the foremost modern theory linking channel structure to the environment—transaction cost theory—has inadequately addressed multiple-channel structure, focusing primarily on the "make-or-buy" decision—that is, the decision to use vertically integrated channels or independent channels. Although more recent studies have expanded the theory to illuminate issues of multiple channels (e.g., Dutta et al. 1995; John and Weitz 1988), ours is the first to address both the breadth of the multiple-channel system and its relative reliance on direct versus indirect forms of distribution and, furthermore, to integrate this more realistic view of channel physical structure with the original findings of Dwyer and Welsh (1985) regarding channel decision structure.

Moreover, the important role of strategy in our results may shed new light on previous research based on transaction cost theory. For example, our results, though, in general, supportive of transaction cost theory's prediction that uncertain environments favor mostly integrated multiple-channel systems, indicate that the omission of business-level strategy in the conceptual models may help explain previous inconsistent findings (e.g., Klein, Frazier, and Roth 1990). In addition, the inclusion of strategy leads to intriguing questions regarding Heide's (2003) findings in an industrial purchasing setting. Our findings for successful differentiator firms support Heide's observation that, when a market relationship (i.e., an indirect channel) coexists with an in-house (integrated) system, the market relationship loses its bureaucratic elements. However, such was not the case with our successful cost leaders. In the ideal cost leadership configuration, firms continue to govern their independent channels by formal rules and high degrees of vertical control, despite the existence of direct elements in their channel systems. Following Miller (1986), if we assume that these configurations represent ideal states that are reached over time, our findings add business strategy as another variable to explain the underlying structure of a plural system. Cost leaders most likely rely on continued bureaucratization in the market relationship to ensure that distribution costs remain at sufficiently low levels to achieve cost leadership. However, differentiators most likely move away from such practices in their market relationships to ensure the high levels of cooperation from their channels, which they need to achieve differentiation.

The inclusion of business-level strategy in multiple-channels research may also lead us to view recent findings linking Internet channels to increases in the firm's market valuation (Cheng et al. 2007) in a new light. To the extent that Internet channels are added to existing channels (Wilson and Daniel 2007) rather than substituted for them, these new channels would increase (1) the total number of channels and (2) the proportion of direct channels used by the firm. Our results suggest that though this move would improve channel performance for differentiator firms, it would lead to a decrease in performance of channels for cost leaser firms. This is an important area of research that merits additional study and draws attention to the myriad research questions that result from linking multiple-channel systems with the business strategy of the firm.

For managers, our findings highlight the importance of considering environmental conditions and the implementation requirements of their strategies when they design their channel systems. Our two ideal configurations offer specific guidelines that can help managers improve performance of their multiple-channel systems. A first set of guidelines applies to environments that are lucrative but unpredictable and fast changing. Such environments have abundant resources and strong opportunities for sales and growth, such as unsaturated or untapped customer segments, but they also tend to have a great deal of competition with numerous different product offerings aimed at many different customer segments. Our findings suggest that managers facing this type of environment can make the most out of their multiple-channel systems when they combine a differentiation strategy and an expansive multiple-channel system. That is, they should offer high-quality, unique products that can be targeted to different customer segments, and they should try to reach these segments with expansive multiple-channel systems in which a large number of independently owned channels is augmented with a relatively larger number of direct (integrated) channels, such as the company sales force or an Internet channel. In addition, the firm should manage the channel members with a minimum of formality, with few rules, and with little vertical control. Division of labor among the different channels in the system should allow each channel to perform unique and specific functions. Thus, one channel might be responsible for generating demand, whereas another one would be responsible for providing information. Such division would discourage direct competition among channels and foster the cooperation the firm needs to pursue an effective differentiation strategy.

The second set of guidelines is for firms that face simple, stable environments with a limited number of competitors, undifferentiated products, stagnant demand, and limited resources. These firms can make the most of their multiple channels when they combine a cost leadership strategy with a limited, relatively indirect multiple-channel system. Because the cost leader strategy demands rather simple marketing tasks and skills from the channels, it is more desirable to allocate these limited tasks to a small number of channels and to divide the work among channel members vertically rather than horizontally. This will help the cost leader reduce channel service and administration costs and increase efficiency. In addition, cost pressure necessitates strong vertical control by the manufacturer. Thus, the manufacturer should manage the other channel systems with standardized rules and regulations coupled with various control mechanisms to monitor their channels' sales performance, inventory levels, or other operations. However, vertical control creates two management issues: (1) screening and selecting potential channel members that are willing to comply with the necessary formalities and tight controls and (2) monitoring and evaluating the selected channel members. In these tasks, the direct component in the multiple-channel system will help the manufacturer; specifically, it will provide performance benchmarks to judge independent channel systems and legitimize the standards and controls in their eyes (Bradach 1997; Heide 2003). Nonetheless, we caution these cost leaders against adding too many direct channels to their systems.

The nonideal configurations in our data show that, in reality, business-level strategy is not always perfectly aligned with environmental conditions. In both nonideal configurations, firms faced mixed or medium environments, but they followed strategies that were clearly differentiator or cost leader; the result was that strategy and environmental conditions pointed toward different types of channel structures. Although hybrid strategies might have been more appropriate in these environments, given the actual environment–strategy conditions as they existed, channel managers were faced with a choice: align the channel structure with the environment or with the strategy. We must exercise caution when drawing conclusions about the generalizability of the nonideal configurations because they were not hypothesized a priori. Without additional study, we cannot determine whether these configurations represent stable types or whether they represent firms in the fluid and specific phases of innovation (see Utterback 1994). Nonetheless, we may learn something by examining their alignment of strategy, environment, and channel structure. One of the nonideal configurations was difficult to interpret because the environment and channel structure exhibited several mixed components. A relationship that was clearly out of alignment, though, was the use of a large number of channels coupled with a cost leader strategy. In the other nonideal configuration, the alignment patterns were more easily recognized. Firms in this configuration consisted of differentiators in environments of medium complexity, dynamism, and munificence, with channel systems of medium bureaucratization and a medium number of indirect channels. It appears that these firms aligned their channel systems with their environments, as is suggested in much of the literature, but the result was a channel system that was misaligned with the business unit's strategy. Because we did not find any nonideal configurations in which channel structure was aligned with strategy rather than the environment, we are not able to make statements about this type of partial alignment. However, we observe that aligning channels with the environment and misaligning them with strategy leads to a suboptimal channel system contribution to firm performance. This may cause us to rethink the costs of misaligning channels with strategy. It is an issue that merits further research.

Overall, we believe that the channels literature is at an important juncture; there is a need to integrate a plethora of meticulously analyzed but narrowly scoped relationships into a broad theory that integrates many variables, including environment, dependence structure, governance, strategy in its many dimensions, information asymmetry, and firm competencies. Decisions about multiple-channel systems and, in general, pluralism in industrial purchasing are so complex that, in Heide's (2003, p. 18) words, they "involve messy details that fall outside the power of elegant theory." Our research suggests that configuration theory has the potential to be the kind of broad theory that can handle complex marketplace realities as a result of its ability (1) to incorporate many variables, (2) to view associations among variables under less restricted assumptions than unidirec-

tional causality and linearity, and (3) to approach holistically the fabric of marketplace phenomena that are driven by causal chains, feedback loops, and fortuitous synergies.

Limitations and Further Research

This study has several limitations. First, we used a single industry, which may limit the generalizability of the findings. Although the use of a single industry is standard in configuration research to control for the confounding of industry-related factors, additional studies using different industries may enhance the generalizability of our findings. Second, we used paper-and-pencil self-rating scales to measure our constructs; thus, shared method variance is a potential concern (Peter 1981). Shared method variance can inflate the trait validity assessments and thus jeopardize theory testing (Peter 1981). In the future, at least the criterion variable should be measured with two independent methods, including self-rating scales and objective measures (e.g., asset turnover, return on assets, return on investment measures associated with the multiple channels). Third, we were limited in terms of the number of variables that could be included in the configurations. With the utility of the approach demonstrated in this study, further research can improve the understanding of these phenomena by incorporating additional dimensions into the analysis. For example, research might focus on developing channel configurations for firms that use hybrid strategies or for firms that follow strategies characterized in Miles and Snow's (1978) typology.

Finally, the significance of our findings linking business strategy and multiple-channel structure lends support to Rosenbloom's (2007) argument that the relationship between multiple channels and competitive strategy may lead to a promising new area of research. More broadly, the strength of our findings suggests that further research would do well to link other elements of the marketing mix to business-level strategy and environmental conditions using a configuration-theoretic approach. Individual pairwise elements of these configurations have already received considerable attention, but as was the case with our study, the holistic perspective offered by configuration theory may be able to integrate and enhance these individual findings. In addition, the important role of strategy in our results suggests that including strategy in investigations of other elements of the marketing mix could help resolve unanswered questions and enrich the understanding of these topics. Overall, our findings help demonstrate the utility and importance of configuration theory in marketing and reinforce Webster's (2005) call for more research emphasizing marketing's strategic dimensions.

APPENDIX
Scale Items, Reliabilities, and Item Loadings

Business Strategy: Differentiation (seven-point scale: "low priority/high priority") (α = .84). Source: Dess and Davis (1984), Homburg, Workman, and Krohmer (1999), and Kim and Lim (1988)

1. Gaining competitive advantage through superior products. (.86)
2. Creating superior customer value through service quality. (.79)
3. Producing high-quality products. (.73)
4. Building up a premium product or brand image. (.85)
5. Obtaining high prices for your products. (.81)
6. Having cooperative and supportive channels of distribution. (.80)
7. Developing customer-specific products. (.79)
8. Emphasizing advertising and promotion. (.78)
9. Developing innovative marketing techniques. (.81)
10. Developing innovative products. (.83)

Business Strategy: Cost Leadership (seven-point scale: "low priority/high priority") (α = .82). Source: Dess and Davis (1984), Homburg, Workman, and Krohmer (1999), and Kim and Lim (1988)

1. Pricing at or below competitive price levels. (.81)
2. Pursuing cost advantages in raw material purchases. (.76)
3. Pursuing operating efficiencies. (.81)
4. Controlling overhead and variable costs tightly. (.80)
5. Pursuing economies of scale. (.74)
6. Minimizing costs related to channels of distribution. (.78)
7. Emphasizing low cost per unit. (.81)

Formalization (seven-point scale: "strongly disagree/strongly agree") (α = .85). Source: Dwyer and Welsh (1985), Jaworski and Kohli (1993), and John (1984)

1. Our relations with our channels are subject to a lot of rules and procedures stating how various aspects of the relationship are to be handled. (.86)
2. Our channels follow standard rules and procedures in their relationships with us. (.79)
3. Our contacts with our channels are on a formal, preplanned basis. (.84)
4. There are standard procedures and rules to be followed by every channel member. (.84)
5. Our channel members have to conform to written rules and formal guidelines. (.85)

Centralization (seven-point scale: "strongly disagree/strongly agree") (α = .92). Source: Dwyer and Welsh (1985), Jaworski and Kohli (1993), and John (1984)

1. There can be little action taken in our distribution organization until we make decisions. (.89)
2. Channel members who want to make their decisions concerning our products are discouraged in our distribution organization. (.86)
3. In our distribution organization, even small matters have to be referred to us for a final decision. (.90)
4. Any decision a channel member makes regarding our product has to have our approval. (.93)
5. Our channel members cannot go ahead with actions without checking with us. (.92)

APPENDIX
Continued

Specialization (seven-point scale: "strongly disagree/strongly agree") (α = .89). Source: Doty, Glick, and Huber (1993)

1. Different channel members in our distribution system perform specific functions. (.86)
2. Most channels are responsible for making decisions about functions that require special skills. (.91)
3. Different channels are responsible for making decisions regarding different functions. (.90)

Environmental Complexity (seven-point scale: "strongly disagree/strongly agree") (α = .86). Source: Achrol and Stern (1988) and Homburg, Workman, and Krohmer (1999)

1. The number of products/brands sold in our market is very high. (.85)
2. The number of different customer segments in our market is very high. (.82)
3. The number of companies competing in our market is very high. (.82)
4. Customer requirements vary very much across different customer segments. (.83)
5. There is a lot of variety in products for sale. (.84)
6. There is a lot of variety in terms of customers involved in our market. (.86)

Environmental Dynamism: Frequency of Changes (seven-point scale: "very few/very frequent") (α = .85). Source: Achrol and Stern (1988) and Homburg, Workman, and Krohmer (1999)

1. Changes in products offered by your business unit and your competitors. (.85)
2. Changes in sales strategies by your business unit and your competitors. (.82)
3. Changes in customer preferences and expectations about product features. (.78)
4. Changes in distribution arrangements and strategies. (.83)
5. Changes in competitive strategies and competitive intensity. (.81)
6. Changes in your company's sales volume. (.85)

Environmental Dynamism: Predictability of Changes (seven-point scale: "highly unpredictable/highly predictable") (α = .84). Source: Achrol and Stern (1988) and Homburg, Workman, and Krohmer (1999)

1. Changes in products offered by your business unit and your competitors. (.86)
2. Changes in sales strategies by your business unit and your competitors. (.82)
3. Changes in customer preferences and expectations about product features. (.76)
4. Changes in distribution arrangements and strategies. (.83)
5. Changes in competitive strategies and competitive intensity. (.82)
6. Changes in your company's sales volume. (.87)

Environmental Munificence (seven-point scale: "strongly disagree/strongly agree") (α = .91). Source: Achrol and Stern (1988) and Kumar, Stern, and Achrol (1992)

1. The demand for your product in your current market is strong and growing. (.90)
2. There is a potential for high sales growth in your market. (.85)
3. There is an abundance of resources (i.e., financial, supplies, human resources, etc.) in your market to companies to support growth potential. (.87)
4. There is no shortage of necessary resources in your market. (.91)

Channel Contribution to Firm Performance (seven-point scale: "strongly disagree/strongly agree"). Source: Kumar, Stern, and Achrol (1992)

Contribution to Sales (α = .91)
1. Over the past three years, your channel has been successful in generating high sales for your company. (.91)
2. Over the past three years, your channel system has generated high sales revenues. (.87)
3. Over the past three years, your channel system has enabled your company to achieve high level of market penetration. (.83)
4. Over the past three years, your channel system has met the sales target you had set for it. (.88)

Contribution to Profit (α = .83)
1. Your company's cost of servicing your channel system is unreasonable. (R) (.83)
2. The channel system's demands for support have resulted in inadequate profits for your company. (R) (.78)
3. Your company has made inadequate profits from your channel system. (R) (.82)

Contribution to Growth (correlation = .77)
1. In the past three years, your current channel system has contributed enormously to your company's revenue growth. (.91)
2. In the past three years, your current channel system has been very successful in expanding your business. (.84)

Global Channel Performance (α = .85)
1. Your channel system leaves a lot to be desired from an overall performance standpoint. (R) (.76)
2. Overall, the results of your relationship with your channel have exceeded your expectations. (.82)
3. If you had to give your channel system a performance appraisal for the past three year it would be…? (.76)[a]
4. Taking all the different factors into account, your channel's performance has been…? (.89)[a]

[a]Measured on a seven-point "poor/outstanding" scale.
Notes: R = reverse scored.

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