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Research on Organizational Configurations: Past Accomplishments and Future Challenges

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Organizational configurations are sets of firms that are similar in terms of important characteristics. This article is intended to help close three gaps in the literature on organizational configurations. First, the authors propose clear definitions that may facilitate progress in the literature. Second, they provide the first major review since 1993 of accomplishments and struggles within organizational configurations research. Third, they describe how the configurational approach to organizations can make greater contributions within its traditional domains of organization theory and strategic management and can be extended to inform areas such as human resource management, organizational behavior, ethics, entrepreneurship, and international business.

Keywords: *organizational configurations; strategic groups; generic strategies; organizational forms; archetypes*

Configurational research focuses on sets of firms that share key characteristics, such as strategy, goals, and structures (Meyer, Tsui, & Hinings, 1993). Such inquiry has a long heritage in the management field. For example, Burns and Stalker (1961) described two types

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of firms. Organic firms are very flexible and thus offer good alignment with the requirements of dynamic environments. Mechanistic firms are highly routinized and efficient, offering good alignment with stable environments. Research on organizational configurations has been conducted under many different labels, including typologies (e.g., Miles & Snow, 1978), gestalts (Miller, 1981), generic strategies (Porter, 1980), modes (Mintzberg, 1973), archetypes (Miller & Friesen, 1978), strategic groups (Porter, 1980), strategic scope groups (Houthoofd & Heene, 1997), competitive groups (e.g., Leask & Parker, 2007) and taxonomies (e.g., Hambrick, 1984). Such classifications of organizations have played a significant role within management research. For example, Miles and Snow's (1978) book that introduced their typology has been cited more than 1,800 times. Porter's (1980) generic strategies have played a major role in management research as well.

The uniqueness of configurational research relative to other research approaches can be highlighted by considering how it pursues the three main goals of organizational research: description, explanation, and prediction (cf. Kerlinger, 1986). Configurational research offers *description* of organizations not by focusing on firm-level dimensions such as age and size but rather by identifying groups of firms that resemble each other along important dimensions. For example, a configurational approach to understanding higher education institutions might focus on similarities within, and differences between, groups such as research-intensive universities, regional universities, and community colleges. Methodologically, this requires downplaying techniques such as regression and structural equation modeling that capture linear relationships in favor of techniques such as cluster analysis, Q-sorting, and repertory grid technique that facilitate classification into groups and analysis of variance that diagnose the differences between groups.

The underlying assumption is that organizations can be better understood via "identifying distinct, internally consistent sets of firms than by seeking to uncover relationships that hold across all organizations" (Ketchen, Thomas, & Snow, 1993: 1278). This assumption also gives rise to configurational research's fundamental *explanation* for organizational success and failure. Although many approaches, such as resource-based theory (Barney, 1991) emphasize the importance of firm-level features such as culture and unique capabilities as drivers of performance, configurational research contends that some configurations fit better than others within any given context and thus are more successful. Ultimately, configurational research aspires to offer accurate *prediction* of which sets of firms will be successful under a particular set of circumstances.

Despite its apparent benefits, configurational research faced a series of critiques in the late 1980s and early 1990s. Hatten and Hatten argued that a key type of configuration—strategic groups—were merely "an analytical convenience" (1987: 329). McGee and Thomas (1986) and Thomas and Venkatraman (1988) suggested that evidence of a link between strategic groups and performance was lacking. Bacharach (1989) asserted that typologies leave unanswered important theoretical issues of causation and contingency. Barney and Hoskisson (1990) argued that strategic groups research lacked theoretical and empirical rigor. Collectively, these articles not only pointed out seeming limitations of configurational research but also called into question the merit of conducting such research.

This article is devoted to taking steps toward closing three significant gaps in the literature on organizational configurations. First, there has been inconsistent usage in terminology

within configurational research. Labels such as *strategic groups*, *generic strategies*, and *archetypes* are used in different ways by different scholars. The result has been that our collective knowledge accumulation about configurations is limited. In response, we propose clear definitions for key terms to provide much-needed conceptual clarity that may help advance the literature. In doing so, we seek to provide a categorization of organizational configurations that explicitly recognizes that there are different kinds of configurations and that each offers unique insights.

Second, the last thorough review of the literature was published in the *Journal of Management* in 1993 (i.e., Dess, Newport, & Rasheed, 1993)—shortly after many of the critiques above were offered. Numerous relevant articles have been published since 1993, suggesting that a thoughtful review to assess what progress has been made and what needs remain is timely and warranted. Third, use of the organizational configurations concept beyond organization theory and strategy has been very limited, despite the potential of the concept to shed new light on diverse phenomena. In response, we develop future research ideas aimed at not only extending configurational thinking within strategy and organization theory but also leveraging the organizational configurations concept to inform inquiry in areas such as human resource management and organizational behavior where little application has occurred.

Definitional Issues in Configurations Research

“Come, let us go down and confuse their language so they will not understand each other”

Genesis 11: 7.

Classifications have long been central to the study of organizations (Carper & Snizek, 1980; McKelvey, 1982), but the scope of their application remains limited. Miller contended that “for all of its promise, the literature on configuration remains underdeveloped” (1996b: 506)—a characterization that still seems appropriate today. Perhaps one reason why configurational thinking has not been fully incorporated into some research streams is because scholars have been inconsistent in their use of terminology. Unlike in the Genesis story of the Tower of Babel, however, this confusion in language is self-imposed rather than divinely provided.

Configurational research has been conducted under the guise of many different concepts and labels. Unfortunately, different authors sometimes define a given term in different ways. Moreover, there has been very little cross-fertilization between the literatures that have developed around each term. *Strategic group*, for example, is a term that has been defined and used in a variety of ways. Although the strategic group concept was created by Hunt (1972), perhaps the best-known definition is offered by Porter: A strategic group is a “group of firms in an industry following the same or similar strategy along the strategic dimensions” (1980: 129). Two key elements of Porter’s definition are that strategic groups are a *within-industry concept* and that *the members of a group have similar strategies*.

Ambiguity arises when multiple definitions are in play. For example, DeSarbo and Grewal suggested that “strategic groups consist of firms similar on some yardstick, such as cost structure, degree of product diversification, resource profile, and/or strategic emphasis” (2008: 293). This definition deviates from Porter’s in two important ways. First, the strategic group is not explicitly denoted as a within-industry concept. Second, groups are defined

not by strategy in particular but by “some yardstick” that might include elements other than strategy (e.g., cost structure, resources). Future scholars can draw on this definition to justify strategic groups that span different industries and/or are identified based on dimensions other than strategy. This sort of scenario can result in the term *strategic group* being used to denote different phenomena, thereby inhibiting synthesis across articles. In contrast, Leask and Parker (2007) and Kabanoff and Brown (2008) quoted Porter (1980) directly when defining strategic groups. This is very helpful because it helps build consistency in the usage of the term *strategic groups* and sets the stage for knowledge accumulation.

The fact that uncertainty remains about different configurational terms provides a great opportunity for conceptual progress. Accordingly, in Figure 1, we offer a modest proposal intended to provide a basis for more rapid knowledge accumulation. Instead of the myriad, overlapping terms currently used, we suggest that configurational research should center on five terms, each with clear lines of demarcation from the others. The first term is *organizational configurations*; a “cover term” used to refer to the more specific terms (Ketchen & Shook, 1996; Meyer et al., 1993). Preservation of this general term should help efforts to further develop an overall configurational approach to organizations by providing a conceptual “umbrella” under which various types of configurations can be examined. Beyond this cover term, we suggest that strategic groups and generic strategies are identified based on how firms compete in the market, whereas archetypes and organizational forms focus on the features of organizations. Each of these terms is defined in detail below.

As shown in Figure 1, *strategic groups* are context-specific configurations that are derived on the basis of competitive strategy. A focus on strategy only might seem narrow on initial consideration, but in fact, it can be quite broad in that strategy involves an array of dimensions such as positioning in the market, resource deployment decisions, and competitive scope. Our definition of strategic groups is largely consistent with Porter’s (1980) well-known definition. We deviate a bit from Porter’s definition by referring to strategic groups as context-specific rather than industry-specific. The reason is that in some settings the most relevant competitive context is a geographic region within an industry (e.g., Chicago-area banks—Reger & Huff, 1993; hospitals in a metropolitan area—Ketchen et al., 1993).

As shown in Figure 1, we propose to define *archetypes* as configurations that are context-specific and are identified based on an array of organizational features. These features can include strategy, structure, process, size, and culture, among others, depending on a researcher’s interests. Our definition is based on Greenwood and Hinings’s (1993) depiction of archetypes among municipal governments in England and Wales. Their 15-year, in-depth investigation of 422 organizations revealed the existence of two archetypes—corporate bureaucracy and heteronomous professional bureaucracy—which differed in terms of interpretive schemes, organization design, and decision systems. No attempt was made to generalize these archetypes; indeed, in the authors’ minds, “sector specificity was taken as a given” (Greenwood & Hinings, 1993: 1060). Looking forward, the concept of archetypes can be quite useful to scholars interested in multidimensional (i.e., not limited to strategy) configurations that appear in a particular context. For example, examining archetypes in unique yet important settings such as university spin-offs, professional sports, and health care organizations holds much promise for understanding activity and outcomes in those settings.

Figure 1
Determining Which Configurational Term to Use

		Primary basis for identifying organizational configurations	
		Competitive Strategy	Organizational Features
Applicability of organizational configurations	Context-Specific	<i>Strategic groups</i>	<i>Archetypes</i>
	Generalizable	<i>Generic strategies</i>	<i>Organizational forms</i>

We suggest that *generic strategies* should be used to refer to configurations that are identified based on competitive strategy alone and that apply to a variety of contexts. The term *generic strategy* was introduced by Porter (1980). A generic strategy is an “internally consistent” approach “for creating . . . a defensible position in the long run and outperforming competitors in an industry” (Porter, 1980: 34). Porter’s well-known set of generic strategies include overall cost leadership, differentiation, and focus. Each represents a “broadest level” (Porter, 1980: 34) approach to strategy that can be successful in a variety of industries. One source of ambiguity in the configurations literature can perhaps be traced to the fact that Porter’s landmark 1980 book introduced the concept of generic strategies *and* provided what emerged as a popular definition of strategic groups. Although the former are intended to be generalizable and the latter are not, authors sometimes mingle the concepts as they attempt to advance theory (e.g., Dess & Davis, 1984; Kim & Lim, 1988), perhaps blurring the distinction. As configurational research moves forward, progress will be hastened if authors make clear whether their strategy-based configurations are generalizable (i.e., generic strategies) or context-specific (strategic groups).

Finally, *organizational forms* are sets of similar firms that are found across industries and that are identified based on an array of organizational features. For strategic management researchers, the best known set of forms is Miles and Snow’s (1978) defenders, prospectors, analyzers, and reactors. These forms differ not just primarily in terms of strategy (as would

be the case for generic strategies) but also in their structure, technology, and decision processes. For example, prospectors pursue innovative strategies, adopt flexible structures, and use decentralized decision making. In contrast, defenders attempt to seal off part of the market, adopt efficient structures, and centralize decision making. Organizational forms are also found in the population ecology, institutional theory, and contingency theory literatures. Given the variety of theories that embrace the concept, we suspect that inquiry centered on forms offers significant potential for building conceptual bridges between theories.

By focusing effort around these five clearly defined and demarcated terms, we can move beyond the “Babel-esque” language problems of the past and progress within the configurational literature can realize the potential that Miller (1996a, 1996b) described. Doing so will require recognition of two other important and related terms: *typology* and *taxonomy*. These terms transcend the configurations literature in that sometimes they describe sets of configurations, but they are also used to describe more simplistic category schemes.

Generally, typology refers to a *conceptually* driven classification scheme, whereas taxonomy refers to an *empirically* generated classification. However, typologies and taxonomies are not as different as they might initially seem (Meyer et al., 1993). Typologies, although conceptually derived, are often grounded in empirical knowledge and experience. For example, the Miles and Snow (1978) typology was based, in part, on theories of strategic choice and enactment, and in part, on the authors’ qualitative research in the textbook industry (Ketchen, 2003). Taxonomies, although based on quantitative techniques, need to be theoretically grounded if they are to be useful beyond a single sample. Thus, both typologies and taxonomies are products of cycling between induction and deduction: One is the result of conceptual ideas based on empirical experience, whereas the other is a result of empirical techniques only made useful through conceptualization. Scholars using these terms should make clear how their typologies or taxonomies were created and in particular what roles were played by induction, deduction, and cycling between the two.

Organizational Configurations Research From 1993 to 2007

To capture the state of knowledge within organizational configurations research, this section analyzes the relevant inquiry from 1993 to 2007. This time period allows for a comprehensive update from Dess et al. (1993). The following criteria were used to determine an article’s inclusion. First, we focused on articles in seven outlets consistently recognized as top journals for macro research: *Academy of Management Journal* (AMJ), *Academy of Management Review* (AMR), *Administrative Science Quarterly* (ASQ), *Journal of Management* (JOM), *Journal of Management Studies* (JMS), *Organization Science* (OS), and *Strategic Management Journal* (SMJ). Second, an article had to conceptually develop a new configurational scheme, make significant advancements on an existing scheme, generate groupings using empirics to test some phenomenon, provide guidance on conducting configurational research, or test a previously developed scheme.

We did an initial search in the EBSCOhost and ABI/INFORM databases using the terms *archetypes*, *configurations*, *gestalts*, *generic strategies*, *modes*, *organizational forms*, *strategic groups*, *taxonomy*, and *typology*; from this initial list, we examined each article for its

appropriateness as well as for leads to other related articles. This search resulted in 110 relevant articles, which are displayed in Table 1.

In terms of outlets, 46 (42%) articles were published in *SMJ*, showing a clear propensity for configurational research in this journal compared with the others. *AMJ* published 16 studies, with 13 appearing between 1993 and 1997 and only 3 since 1998. *JOM* published 5 articles, and *ASQ* published 4, which was the fewest of the journals. One interpretation of these counts is that configurational research has been of interest mainly among “pure” strategic management stakeholders. Outlets such as *AMJ* and *JOM* whose domain spans the management discipline have featured far less configurational inquiry, particularly during the last decade.

We focused on six major issues: the nature of configurations, the basis for developing and/or testing configurations, the industry or segment of focus, the sample used, the source of data used, and the findings or outcomes of the article. In examining each of these characteristics, we paid particular attention to how research trends might lend insights into the current status of configurational inquiry according to the issues of theory (number of domains, causality, and temporal stability) and methods (specification of key constructs, effects of data aggregation, unit of analysis, and appropriateness of research methods) outlined by Dess et al. (1993).

Nature of Configurations

The first issue we examined was the nature of the configurations within each study. Applying the definitions developed above, we found that strategic groups were a focus of 31 articles, archetypes were examined in 15 articles, organizational forms were examined in 29, and generic strategies were examined in 15. Four studies focused on more than one type of configuration (e.g., Short, Ketchen, Palmer, & Hult, 2007, examined strategic groups and organizational forms). The remaining articles included methodology pieces (e.g., Ketchen & Shook, 1996); theoretical pieces (e.g., Gresov & Drazin, 1997); and review pieces, including a meta-analysis (Ketchen et al., 1997).

Looking deeper into the nature of these configurations, we find evidence in regard to our assertion that much confusion exists in terminology usage within configurations studies. Some studies (e.g., Duysters & Hagedoorn, 1995; Lee & Pennings, 2002; Mas-Ruiz, Nicolau-Gonzalez, & Ruiz-Moreno, 2005) use a single structural variable such as size as a primary or the only variable to derive their “strategic groups.” Meanwhile, the number of studies explicitly using Porter’s (1980) generic strategies has markedly declined since Dess et al.’s (1993) review, whereas the Miles and Snow (1978) typology of organizational forms remains a popular scheme. In response to Bacharach’s (1989) critique, Doty and Glick (1994) suggested that such typologies can be powerful tools for theory building to the extent that they develop rich constructs, depict interesting relations between the constructs, and are falsifiable. However, in Forte, Hoffman, Lamont, and Brockmann (2000) and other studies, the variables used to classify organizations according to Miles and Snow (1978) are often exclusively strategy based. This hinders typology-based theorizing from reaching its potential. At a more basic level, studies using Miles and Snow’s (1978) typology often arguably misconstrue the typology as consisting of strategic groups rather than organizational forms that incorporate multiple elements and apply broadly.

Table 1
Reviewed Organizational Configurations Research (1993-2007)^a

Academy of Management Review

Fiss, 2007 (M)
 Jones, Felps, & Bigley, 2007 (OF)
 Kang, Morris, & Snell, 2007 (OF)
 Van Witteloostuijn & Boone, 2006 (OF)
 Hillman & Hitt, 1999 (GS)
 Lepak & Snell, 1999 (OF)
 Gresov & Drazin, 1997 (T)
 Lado, Boyd, & Hanlon, 1997 (GS)
 Pawar & Eastman, 1997 (OF)
 Doty & Glick, 1994 (T)
 Miller, 1993 (T)

Academy of Management Journal

Lee & Pennings, 2002 (SG)
 Rindova & Kotha, 2001 (AT)
 Malos & Campion, 2000 (SG)
 Ketchen et al., 1997 (R)
 Delery & Doty, 1996 (AT, OF)
 Lawless & Anderson, 1996 (SG)
 Kabanoff, Waldersee, & Cohen, 1995 (OF)
 Wiggins & Ruefli, 1995 (OF)
 Arthur, 1994 (OF)
 Baker & Cullen, 1993 (AT)
 Doty, Glick, & Huber, 1993 (OF)
 Greenwood & Hinings, 1993 (AT)
 Keck & Tushman, 1993 (AT)
 Ketchen, Thomas, & Snow, 1993 (OF, SG)
 Meyer, Tsui, & Hinings, 1993 (R)
 Ostroff & Schmitt, 1993 (AT)

Administrative Science Quarterly

Maurer & Ebers, 2006 (AT)
 Siggelkow, 2002 (AT)
 Fox-Wolfgramm, Boal, & Hunt, 1998 (OF)
 Adler & Borys, 1996 (OF)

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Ketchen & Palmer, 1999 (SG)
 Mehra & Floyd, 1998 (T)
 Miller, 1996a (OF)
 Ward, Bickford, & Leong, 1996 (GS)
 Dess, Newport, & Rasheed, 1993 (R)
 Morrison & Roth, 1993 (GS, OF)

Journal of Management Studies

Hsieh, Nickerson, & Zenger, 2007 (OF)
 Lamertz, Heugens, & Calmet, 2005 (AT)
 Tyrrall & Parker, 2005 (AT)
 Peng, Tan, & Tong, 2004 (OF)
 Athanassopoulos, 2003 (SG)
 Mueller, Harvey, & Howarth, 2003 (AT)

Tan, 2002 (OF)
 Dyck, 1997 (AT)
 Duysters & Hagedoorn, 1995 (SG)
 Kikulis, Slack, & Hinings, 1995 (AT)
 Schroeder, Congden, & Gopinath, 1995 (GS)
 Bogner & Thomas, 1993 (T)
 Fiegenbaum & Thomas, 1993 (SG)
 Miller & Dess, 1993 (GS)
 Veliyath & Shortell, 1993 (OF)

Organization Science

Lapointe & Rivard, 2007 (AT)
 Payne, 2006 (AT)
 Birkinshaw & Lingblad, 2005 (OF)
 Sinha & Van de Ven, 2005 (M)
 Siggelkow & Levinthal, 2003 (OF)
 Nickerson & Zenger, 2002 (T)
 Dougherty, 2001 (OF)
 Whittington, Pettigrew, Peck, Fenton, & Conyon, 1999 (OF)
 Larsson, Bengtsson, Henriksson, & Sparks, 1998 (GS)
 Gimeno & Woo, 1996 (SG)
 Reger & Palmer, 1996 (AT)
 Volberda, 1996 (OF)

Strategic Management Journal

Hoffmann, 2007 (GS)
 Leask & Parker, 2007 (SG)
 Short, Ketchen, Palmer, & Hult, 2007 (OF, SG)
 Desarbo, Di Benedetto, Song, & Sinha, 2005 (OF)
 Ebben & Johnson, 2005 (GS)
 Mas-Ruiz, Nicolau-Gonzalez, & Ruiz-Moreno, 2005 (SG)
 Spanos, Zaralis, & Lioukas, 2004 (GS)
 McNamara, Deephouse, & Luce, 2003 (SG)
 Nair & Filer, 2003 (SG)
 Garcia-Pont & Nohria, 2002 (SG)
 Lee, Lee, & Rho, 2002 (SG)
 McNamara, Luce, & Tompson, 2002 (SG)
 Luo & Park, 2001 (OF)
 Nair & Kotha, 2001 (SG)
 Osborne, Stubbart, & Ramaprasad, 2001 (SG)
 Slater & Olson, 2001 (OF)
 Campbell-Hunt, 2000 (GS)
 Forte, Hoffman, Lamont, & Brockmann, 2000 (OF)
 Ferguson, Deephouse, & Ferguson, 2000 (SG)
 Kaufman, Wood, & Theyel, 2000 (GS)
 Pegels, Song, & Yang, 2000 (SG)
 Slater & Olson, 2000 (OF)
 Ferguson & Ketchen, 1999 (M)
 Segev, Reveh, & Farjoun, 1999 (SG)
 Dranove, Peteraf, & Shanley, 1998 (M)

(continued)

Table 1 (continued)

Stabell & Fjeldstad, 1998 (GS)	Miller, 1996b (R)
Dess, Lumpkin, & Covin, 1997 (GS)	Fiegenbaum & Thomas, 1995 (SG)
Houthoofd & Heene, 1997 (SG)	James & Hatten, 1995 (OF)
Nath & Grunca, 1997 (SG)	Kotha & Vadlamani, 1995 (GS)
Peteraf & Shanley, 1997 (T)	Merz & Sauber, 1995 (OF)
Smith, Grimm, Wally, & Young, 1997 (SG)	Carter, Stearns, Reynolds, & Miller, 1994 (GS)
Bierly & Chakrabarti, 1996 (SG)	Galbraith, Merrill, & Morgan, 1994 (SG)
Bogner, Thomas, & McGee, 1996 (SG)	Cool & Dierickx, 1993 (SG)
Ketchen & Shook, 1996 (M)	Dvir, Segev, & Shenhar, 1993 (OF)
Lassar & Kerr, 1996 (SG)	Reger & Huff, 1993 (SG)
Mehra, 1996 (SG)	

a. The parenthetical notations build on the scheme laid out in Figure 1 to indicate what kinds of configurations were examined. SG refers to strategic groups, AT refers to archetypes, GS refers to generic strategies, and OF refers to organizational forms. In addition, M refers to articles focusing on methodological concerns, T refers to general theoretical articles, and R refers to review articles.

Despite inconsistent use of terminology, strategic groups research since 1993 has demonstrated responsiveness to criticisms of the strategic groups concept. Nearly two decades ago, Barney and Hoskisson (1990) were skeptical of strategic groups because evidence of the existence of groups was based largely on a suspect technique—cluster analysis. Furthermore, Barney and Hoskisson (1990) argued that if strategic group membership did not influence firm-level performance, then researchers should consider abandoning the concept. Research in the last decade has sought to address these concerns on multiple fronts. With regard to the existence of strategic groups, conceptual arguments from an economics perspective used Bresnahan's (1989) general model of pricing to argue that strategic groups did indeed constitute an important and unique level of analysis independent of the firm and the industry because each group could produce a differentiated product with homogeneity within groups (Dranove, Peteraf, & Shanley, 1998). Calls for research that isolates firm-from group-level effects to strengthen the ability to isolate sources of sustained competitive advantage (e.g., Rouse & Daellenbach, 1999) suggest that scholars are beginning to embrace the configuration as a level of analysis that should be taken into account.

Empirically, efforts have sought to isolate the effects of strategic group membership on firm-level performance. For example, Nair and Kotha (2001) parceled out the effects of firm-and environmental-level variables to establish the link between group membership and firm performance in the Japanese steel industry. This work, as well as a related study (i.e., Nair & Filer, 2003), provided an important contribution through leveraging naturally occurring strategic groups in the Japanese steel industry (integrated mills versus minimills); this context was selected to explicitly address concerns that strategic group effects were a function of cluster analysis rather than a defensible and tangible strategic phenomenon.

Further isolating the effects of group membership on firm performance, Short et al. (2007) used systems theory as a conceptual base to test firm, strategic group, and industry levels of performance in a multi-industry analysis. They found that group membership

consistently explains significant variance in firm performance, with the effects of strategic group membership at times exceeding that of industry membership. Thus, research on strategic groups since 1993 has more firmly established this concept through richer conceptual arguments and by using a variety of empirical techniques beyond, or in addition to, cluster analysis to measure strategic groups. Researchers have effectively isolated the group level of analysis, and numerous empirical efforts have examined the effects of group membership on firm-level performance.

Development and Testing of Configurations

The second major issue reviewed is the general basis for configurations—that is, how organizational configurations were derived and tested. Sixteen articles presented configurations without supporting data (i.e., conceptually developed configurations). Not including methods, general theory, or review articles, the remaining articles use a vast array of inductive and deductive empirical methods. Inductive procedures produce numerically driven groupings, whereas deductive procedures are considered to be classification schemes based on a theoretical argument (Ketchen et al., 1993).

Fiss (2007) asserted that most configurational research has used interaction effects, clustering algorithms, or deviation scores to establish and test organizational configurations. Our review supports this assertion. The primary statistical method used to derive groupings is cluster analysis, with the majority of studies relying on Ward's hierarchical technique (Leask & Parker, 2007). Although cluster analysis remains a popular technique, its use has slowed somewhat; 19 of the 32 studies using clustering techniques occurred in the first 5 years of our review time frame.

In conjunction with clustering techniques, analysis of variance (ANOVA), multiple analysis of variance (MANOVA), discriminant analysis, factor analysis, and self-typing techniques were frequently used. Typically, researchers use ANOVA and MANOVA to examine whether or not clustered groupings differ along some outcome variable, which is often performance (e.g., Payne, 2006). The other methods listed above have been used in efforts to overcome some of the inherent weaknesses of clustering described by Barney and Hoskisson (1990) and Wiggins and Ruefli (1995). Many recent authors have followed Ketchen and Shook's (1996) recommendations to incorporate a theoretical rationale into variable selection processes and to use multiple methodologies to validate groupings. For example, Short et al. (2007) used hierarchical linear modeling to partition out the variance explained by strategic groups from that of the firm and the industry. In addition, they relied on both inductive and deductive methods.

Despite the increased diversity of methodologies in recent years, Fiss (2007) argued that there are still many problems caused by the inability of commonly used methodologies to account for configurations' multidimensionality and interdependencies. This sentiment echoes that of Dess et al. (1993) and makes clear that additional methods are still needed. Furthermore, there has been little consistency in the use of scales and measures across studies. For example, Tan (2002) and Peng, Tan, and Tong (2004) derived configurations using two different methods (one uses three dimensions, the other five) with the same data from the Chinese electronics industry. Such an approach inhibits the ability to draw overarching

conclusions across the two articles. In contrast, Nath and Gruca (1997) provided a basis for strong inference by demonstrating how multiple methods for identifying configurations (i.e., archival, direct, and perceptual) can be used to validate group membership. This rigorous approach provides confidence that configuration membership assignments are accurate, and as such, it serves as an exemplar for future efforts.

A final note regarding the development and testing of configurations is centered on the premise of causality. Dess et al. (1993) argued that many research designs they examined did not appropriately account for causality, particularly in studies of configurations and performance. In many cases, it was unclear whether or not performance was a cause or an effect of configuration membership. This led Dess et al. (1993) to call for longitudinal research. It seems that call has been answered. Researchers have been addressing causality by incorporating more longitudinal research designs such as cointegration analysis (Nair & Filer, 2003), event history analysis (Lee & Pennings, 2002), time lags (Forte et al., 2000), and panel data (Gimeno & Woo, 1996). Using such techniques, as well as others that allow for causality to be determined (e.g., structural equation modeling), should be encouraged as configurational research progresses.

Industry Segment, Sample, and Source of Data

Examination of extant articles reveals both multi- and single-industry samples, as well as a variety of service and product-oriented industries. However, it appears that inquiry has tended to focus on single industries, or even subsegments of an industry (e.g., Ferguson, Deephouse, & Ferguson, 2000; Nair & Filer, 2003). There are very few comparative studies that test the same phenomenon in two or more industries. Exceptions exist, but many of these are qualitative, and they surrender generalizability in exchange for in-depth coverage of a few organizations. For instance, Hoffmann (2007) examined alliance strategies using two different business units from the same corporation. Overall, Dess et al.'s call for "recognition and control for industry effects in configurations research" (1993: 786) is being heeded through the use of single-industry studies, but there are relatively few efforts that compare configurations across industries. This presents a good opportunity for further inquiry.

Data sources have varied, including archival data, surveys, interviews, and expert panels; many times, multiple sources have been used in efforts to validate configurations, which was a specific limitation in research prior to 1993 (Dess et al., 1993). There have even been studies using computer simulations to develop and test configurations (e.g., Fox, Srinivasan, & Vaaler, 1997; Siggelkow & Levinthal, 2003). Furthermore, the number and type of variables used in the establishment of configurations has been quite diverse. There are studies that have simple one-dimensional configurations, such as those based on size (e.g., Mas-Ruiz et al., 2005), whereas others incorporate many different variables in an effort to develop complex classifications (e.g., Payne, 2006).

We found a mix of cross-sectional and longitudinal studies, with 26 of the studies incorporating longitudinal data. One challenge with longitudinal designs is maintaining a strong sample size throughout a study period. For example, Smith, Grimm, Wally, and Young (1997) had a sample size of 29; Bierly and Chakrabarti (1996) had 21; Bogner, Thomas, and McGee

(1996) had 25; Duysters and Hagedoorn (1995) had 25, 25, and 20 for their three industries; and Fiegenbaum and Thomas (1995) had 28. Dess et al.'s (1993) call for more research that addresses causality is being heeded, but perhaps to the detriment of other potentially problematic areas (i.e., sample size and statistical power; Ferguson & Ketchen, 1999). Although Forte et al. (2000) studied 235 Florida hospitals in a 3-year period, and Wiggins and Ruefli (1995) studied five separate industries ($N = 110, 17, 165, 271$, and 119) over 18 years, such large samples represent exceptions among longitudinal studies rather than the norm.

Investigation of the temporal stability of configurations was another need highlighted by Dess et al. (1993). Since 1993, some studies have explored the mechanisms driving configurational change; these are generally of a qualitative nature. Tyrrall and Parker (2005) examined British Rail to better understand the design, processes, and interpretive schemes associated with configurational changes. Similarly, Siggelkow's (2002) study of a mutual fund provider revealed four processes that shed light on configurational paths and transitions. Kikulis, Slack, and Hinings (1995) examined how institutionally specific design archetypes changed over time. Dyck's (1997) study of the Canadian Mennonite Bible College revealed that changes are a function of shifts in organizational values. Collectively, these studies offer insight into conditions that either resist or amplify change.

There are fewer studies that examine configurational change from a strategic perspective; two of the reviewed articles specifically address strategic change over time. First, Forte et al. (2000) found organizations migrate toward the higher performing strategic groups prevalent within a given environment. Second, Fox-Wolfgramm, Boal, and Hunt (1998) studied how prospectors and defenders responded to institutional change. Both types resisted change, but for different reasons; the authors introduced the term *identity resistance* as an explanation, which is "resistance that results from nonconvergence between both current identity and image and envisioned identity and image" (Fox-Wolfgramm et al., 1998: 118). Much remains unknown, however, about the how, why, and when of change and adaptation among configurations. Although it is thought, for example, that declines in performance may stimulate configurational change (Greve, 1998), we are unaware of any broadscale studies that use performance as a predictor of such change.

Study Outcomes

Explaining performance remains a popular goal of configurational studies. Performance is often assessed via accounting data (e.g., return on assets, return on sales), but other metrics including realized market share (e.g., Lawless & Anderson, 1996), patenting rate (e.g., Maurer & Ebers, 2006), price cost margin (e.g., Spanos, Zaralis, & Lioukas, 2004), and various subjective measures (e.g., Slater & Olson, 2000) have been used too. In response to the critiques of Hatten and Hatten (1987), McGee and Thomas (1986), and Thomas and Venkatraman (1988), research during the past 15 years has largely substantiated that configurations are related to performance. For example, Ketchen et al.'s (1997) meta-analysis of 32 studies determined that about 8% of performance variance can be explained by configurational membership. Given that Ketchen et al.'s (1997) data collection ended in 1995 and that numerous studies have been conducted since then, another meta-analysis would be timely

and warranted. Also, Nair and Kotha (2001) and Short et al. (2007), while controlling for firm and industry effects, demonstrated that group membership is related to organizational performance. Leask and Parker (2007) validated previous research in the U.S. pharmaceutical industry by finding significant strategic group effects on performance in the U.K. pharmaceutical industry across time.

Although the importance of configurations for performance has received considerable support, questions remain regarding the exact nature of this link. Several articles have noted the importance of competitive rivalry and how between- and within-group differences might create unique challenges. McNamara, Deephouse, and Luce (2003) found that performance differences were larger within strategic groups of banks than between groups. Segev, Raveh, and Farjoun (1999) found that the highest ranking business school programs did not belong to the same group but rather were leaders in different groups. Such studies highlight the potential value of the notion of equifinality, which is defined as the state of achieving a particular outcome (e.g., high levels of performance) through various paths (Gresov & Drazin, 1997). Since Doty, Glick, and Huber (1993) and Gresov and Drazin (1997) outlined the importance of equifinality for configurational research, there has been little inquiry explicitly dealing with equifinality, particularly regarding the types of equifinality that exist in different contexts (Payne, 2006).

Aside from direct performance outcomes, several studies have attempted to uncover configurational factors that may indirectly influence organizational performance. Kang, Morris, and Snell (2007) conceptually developed two types of organizational learning. Drawing on learning, social relations, and human resource management literature, these configurations, which were labeled *cooperative archetype* and *entrepreneurial archetype*, were used to describe how employees might be best managed to create value. Presumably, organizations that facilitate learning will be better equipped to compete and will demonstrate higher levels of performance over time. Garcia-Pont and Nohria (2002) demonstrated that the likelihood that any two firms will enter an alliance depends on the number of ties that exist across their respective groups. Ferguson et al. (2000) linked groupings to level of reputation, which was then linked to performance in a post hoc analysis. Configurations also have been used to better understand governance (Hsieh, Nickerson, & Zenger, 2007), employment modes (e.g., Lepak & Snell, 1999), information system adoption (e.g., Lapointe & Rivard, 2007), product distribution (Lassar & Kerr, 1996), and social capital (Maurer & Ebers, 2006). Comprehensively, the trends and patterns noted in this review suggest that although much has been accomplished in the configurations literature, particularly regarding the configuration–performance relationship, there are many areas needing further exploration. The following section highlights several of these directions for future research.

Extending Organizational Configurations Research

The past 15 years have involved significant progress in configurational theory and research. The vast majority of scholarly efforts to date have been within strategic management and organizational theory. This is true not just of the past 15 years but also of the full history of configurational inquiry dating back to the 1960s. We see much fertile ground for the application

of configurations within strategic management and organizational theory, particularly if configurational inquiry resolves its definitional ambiguities. Perhaps more important are the opportunities outside of these two fields. Although configurational studies have appeared in the entrepreneurship literature (e.g., Bantel, 1998) and scholars have begun to incorporate configurational logic into understanding of human resource management (Kang et al., 2007; Lepak & Snell, 2002), such studies represent exceptions rather than a trend.

In the following sections, we propose avenues to advance research via the application of configurational thinking. We begin by highlighting opportunities in the two fields that have most embraced configurations research: strategic management and organizational theory. Next, we discuss several fields where configurational thinking can benefit scholars, particularly those that are interested in cross-level and multi-level research. These fields include human resource management, organizational behavior, entrepreneurship, ethics, and international business. Table 2 summarizes our suggestions; these suggestions are explained below. Table 2 also lists research methods that could be used to pursue each opportunity.

Strategic Management

The configurational approach continues to hold great promise for strategic management research. The strategic groups concept, for example, remains popular but still offers vast opportunities for knowledge development. Scholars have suggested that members of a strategic group share a unique identity relative to firms in other groups (Peteraf & Shanley, 1997), and empirical evidence confirms that strategic groups differ in terms of related elements such as reputation (Ferguson et al., 2000). Future research could highlight other areas where organizational decision makers hold unique identities related to configurations and examine how such identities affect managerial actions and organizational outcomes. For example, groups of firms that are environmentally conscious may share a "green" identity. Studies could examine how such an identity is tied to social responsibility (Hillman & Keim, 2001).

Configurations have been demonstrated to be useful for explaining differences in business school missions (Palmer & Short, in press), and unique identities are associated with group membership among higher education institutions (Labianca, Fairbank, Thomas, Gioia, & Umphress, 2001). Future efforts could build on this work by exploring the evolution of certain group identities in this context; for example, what leads a university to develop or pursue an identity centered on entrepreneurship or on sustainability? Is group-level identity tied to the magazine rankings that are coveted at many universities? Recent work exploring configurations based on demand conditions (Leask & Parker, 2007) may inform such inquiry by highlighting the question of whether identity forms as schools react to market demands.

Understanding strategic group identity provides one needed step in building knowledge related to managers' use of configurations, but further efforts to tie managers' interpretations to strategic actions are needed. Some have argued that strategic groups "matter" because they are used by executives when developing their mental models and when making sense of changing environments (Reger & Huff, 1993; Reger & Palmer, 1996). Under this logic, an understanding of group membership is important because group membership acts as a referent through which managers process information and make sense of their firm's performance

(e.g., Fiegenbaum & Thomas, 1995; Short & Palmer, 2003). Future research could move this inquiry forward by examining the effects of managers' thought processes on firm behaviors. One important question to be tackled is: What are the implications for action and performance if managers' understandings of group structure and membership are unrealistic?

The firm and industry levels of analysis are critical to achieving sustained competitive advantage (Meyer, 1991), and scholars have called for research that integrates the strategic group level into studies examining firm and industry effects (Dranove et al., 1998; Short, Palmer, & Ketchen, 2003a, 2003b). Recent efforts have embraced multilevel techniques such as hierarchical linear modeling to examine firm, strategic group, and industry levels in a single analysis (Short et al., 2007), but many of the most compelling features of these techniques, such as the ability to test moderation at multiple levels of analysis, have yet to be incorporated. Having established that the strategic group is a meaningful level of analysis, future research should move past simple partitioning of variance to examine more complex interactions between firm, strategic group, and industry levels. For example, do industry characteristics, such as Dess and Beard's (1984) dimensions of task environments, shape the relationship between group membership on the one hand and performance on the other? How does fit between firm-level strategy, strategic group membership, and environmental dynamics affect performance?

Organizational Theory

A quarter of a century ago, Astley and Van de Ven (1983) noted that understanding the degree to which internal adaptation and environmental selection explain changes among organizational forms is a central issue in organizational theory. Within the literature on organizational configurations, change and stability have not been major foci in recent years. Accordingly, we recommend a return to the central issue highlighted by Astley and Van de Ven. When investigating changes over time, scholars should seek to leverage underexplored theoretical explanations for why organizational forms may be altered. For example, Thiétart and Forgues (1995) used chaos theory as a conceptual base to propose that firms in chaotic domains are attracted to an identifiable configuration. Efforts to test such notions may benefit from existing work on mimetic isomorphism (Deephouse, 1996).

Organizational theory inquiry focused on examining structural changes over time often downplays the influence of strategic choices. Meanwhile, configurational studies within strategic management often omit elements of organizational structure. To move configurational research forward, authors seeking to contribute to the long-running choice-versus-ecology debate should provide a more complete depiction by examining configurations that include elements of strategy *and* structure. Although this need has been noted before (e.g., Miller, 1986), our review suggests that few tests incorporate both elements.

Equifinality has long been an important issue within organizational theory. The concept dates back to von Bertalanffy (1949/1952) who noted a general property of many open systems allows for a steady state to be reached from different initial conditions. This logic parallels Porter's (1980) generic strategies in the sense that no particular generic strategy is deemed to

Table 2
Examples of Research Opportunities Involving Organizational Configurations

Field	Research Opportunities	Possible Methods for Exploring Each Opportunity
Strategic Management	Examine differences in strategic group identities	Content analysis of organizational mission statements
	Diagnose managers' usage of strategic groups	Repertory grid technique
	Incorporate firm and industry levels into tests of configurations	Multivariate analysis of archival data
Organizational Theory	Track changes in organizational forms	Longitudinal techniques
	Examine strategy and structure in tests of configurations	Structural equations modeling
	Explore concepts of fit and equifinality using a configurational framework	Qualitative methods
Human Resource Management	Examine how configurations of firms differ in regards to human resource practices	Interviews of human resource managers of different configurations
	Link human resource configurations to the strategic management and performance of organizations in various contexts	Multivariate analysis of archival data
Organizational Behavior	Examine patterns of rhetoric based on conceptual dimensions of charisma or other theoretical basis	Content analysis of leadership narratives such as CEO letters to shareholders
	Test if the linkage between specific leadership styles (charismatic, authentic, transformational) and performance is moderated by strategic group or configurational membership	Moderated regression
Ethics and Corporate Social Performance	Statistical tests to analyze if configurations moderate the relationship between corporate social performance (CSP) and firm financial performance	Hierarchical linear modeling and other multilevel techniques
	Examine configurations of CSP activity	Clustering techniques based on archival data such as the Kinder, Lydenberg, Domini (KLD) database
	Test if configurations help explain equivocal results in research examining board characteristics, CEO duality, and executive compensation	Structural equation modeling

(continued)

Table 2 (continued)

Field	Research Opportunities	Possible Methods for Exploring Each Opportunity
Entrepreneurship	Determine how configurations relate to performance for young firms	Survey methods
	Create new typologies of entrepreneurial firms	Qualitative methods
	Examine cognitive patterns of entrepreneurial thinking	Repertory grid technique
	Use configurational theory to analyze competitive dynamics within emerging or dynamic contexts	Event studies and panel studies
International Business	Examine configurations of countries based on geography, trade agreements, or cultural dimensions	Multilevel multivariate techniques
	Test if configurations composed of countries may help explain innovation and entrepreneurial activity	Clustering techniques using Global COMPUSTAT data

be inherently superior; however, it may be in conflict with some configurational research wherein the goal is to identify differences in performance across groups. Theorizing by Gresov and Drazin (1997) that offers several scenarios where equifinality may exist provides a potential means to reconcile these differences into a broader conceptual model (e.g., Payne, 2006).

Human Resource Management

An understanding of the role of configurations as a context within which activity at the individual or group level of analysis takes place could be important to human resource management scholars. This may be particularly relevant when studies must control for macro-level environmental factors within a single industry or when industry-level controls (e.g., Standard Industrial Classification [SIC] codes) are too abstract. For example, Malos and Campion (2000) found differences in career mobility practices and career-related outcomes based on configurational differences among U.S. law firms. Further examinations to understand how configurations of firms differ in regard to human resource practices and other characteristics hold great promise for bridging micro and macro research and helping build mesotheory.

The configurational approach represents an important mode of theorizing for strategic human resource management (Delery & Doty, 1996). Viewing configuration membership as a potential moderator of the links between various human resource practices and performance is a particularly promising area of research that has received some attention (e.g., Youndt & Snell, 2004) and is deserving of more. For example, studies have linked racial diversity to performance (Richard, 2000; Richard, Murthi, & Ismail, 2007). Perhaps some

types of firms benefit more from diversity than others. If so, application of a configurational perspective could be helpful in identifying linkages among human resource practices and racial diversity on one hand and outcomes such as turnover, individual performance, and firm performance on the other.

Organizational Behavior

The use of configurational logic is noticeably absent in leadership research to date. However, previous research has provided guidance that could prove useful to leadership scholars seeking to incorporate configurational concepts. For example, Kabanoff, Waldersee, and Cohen (1995) used cluster analysis to categorize value structures. This approach is consistent with other work that has measured strategic groups via patterns of language use in shareholder letters (Osborne, Stubbart, & Ramaprasad, 2001); such patterns represent mental models that could reveal new insights into a host of different espoused values salient to leadership scholars. For example, researchers have used computer-aided content analysis to examine charismatic leadership based on seven general propositions developed by Shamir, Arthur, and House (1994) related to rhetoric that is hypothesized to produce charismatic effects on followers (Bligh, Kohles, & Meindl, 2004a, 2004b). Examining different dimensions of charismatic leadership from a configurational perspective could reveal complex patterns of rhetoric that could be linked to follower actions.

The use of configurational concepts could provide valuable linkages to managerial actions that are often missing from leadership research. For example, research has begun to examine linkages between charismatic leadership and firm performance (Tosi, Misangyi, Fanelli, Waldman, & Yammarino, 2004). Unfortunately, this research has often omitted firm characteristics such as managerial actions that might serve as moderators. It seems likely that some types of firms benefit more from having charismatic people at the helm than do others. Studies that incorporate configurational logic could assess if linkages between specific leadership styles (charismatic, authentic, transformational) and performance are moderated by configuration membership.

The vast majority of configurational research to date has focused on configurations composed of organizations. However, a number of organizational behavior frameworks could benefit from examining configurations composed of individuals. For example, the "Big Five" personality characteristics (Thurstone, 1947) and the Myers/Briggs personality schemes (Jung, 1921) could be viewed as patterns of personality. Using configurations as a conceptual basis would encourage researchers to view personality as a complex pattern of relationships rather than a series of relatively discrete dimensions; such an approach could shed light on a number of equivocal research issues such as the implications of personality for individual performance, satisfaction, motivation, and turnover.

Ethics and Corporate Social Performance

Industry differences are often considered an important contextual factor in examinations of corporate social performance (CSP; e.g., McWilliams & Siegel, 2000), and configurational

membership may also play a key role. In the case of the pharmaceutical industry, “big pharma” firms such as Merck and Pfizer are subject to greater scrutiny regarding social responsibility than are generic drug makers. A study that focused on the industry average level of CSP would not accurately reflect the situation faced by members of either group. Meanwhile, the results of studies seeking to link CSP to profit have been equivocal (McWilliams & Siegel, 2000; Orlitzky, Schmidt, & Rynes, 2003). Perhaps prior results are equivocal because scholars have sought to find universal relationships where configurational relationships exist instead. If so, the positive links between CSP and profit within some groups are canceled out in an aggregate analysis by negative links within other groups. Given that the influence of configuration membership on performance at times exceeds that of industry membership (Short et al., 2007), it would be worthwhile to assess if configurations moderate the relationship between CSP and profit.

The importance of effective governance mechanisms are a key concern for managers and policy makers alike; unfortunately, much research examining the influence of governance practices on firm performance has been equivocal. For example, a meta-analysis of research on chief executive officer (CEO) duality (i.e., whether the CEO is also the chair of the board) and firm performance did not find a significant linear link (Dalton, Daily, Ellstrand, & Johnson, 1998). This is surprising given that institutional investors often lobby vehemently for the separation of power between the CEO and chair positions.

CEO duality is a double-edged sword in that it enables a firm to move more decisively but it creates agency problems. Perhaps for some firms the advantages of decisiveness outweigh the agency problems and duality improves performance, whereas for others duality undermines performance. To test this possibility, configurations of firms could be developed to take into account aspects of the CEO (duality, is the CEO an insider or outsider, leadership style) as well as characteristics of the board (does the board exhibit homogeneous or heterogeneous thinking, is the board dominated by outsiders or insiders). Such examinations could reveal complex patterns of governance that cannot be detected when examining each governance characteristic as an isolated antecedent to performance.

Entrepreneurship

Configurational research's contention that structure and environmental factors help explain outcomes (Doty et al., 1993; Ketchen et al., 1993) has much to contribute to the entrepreneurship field. Although some scholars have noted this potential (Korunka, Frank, Lueger, & Mugier, 2003; Wiklund & Shepherd, 2005), the field has been slow to examine configurations of entrepreneurial firms and the interconnectedness between strategy and structure in an entrepreneurial context. Examination of how configurations relate to the performance of nascent firms would provide a natural extension of previous research in strategic management and organizational theory.

One way to apply configurational logic to entrepreneurial firms is to examine cognitive patterns of entrepreneurial thinking. Such patterns could be based on concepts such as entrepreneurial orientation (EO; Lumpkin & Dess, 1996), which includes multiple dimensions of autonomy, competitive aggressiveness, proactiveness, innovativeness, and risk taking.

Research to date suggests that EO dimensions exhibit differential correlations with organizational outcomes, such as firm performance (cf. Rauch, Wiklund, Freese, & Lumpkin, 2004). Examination of patterns of EO could shed light on linkages between entrepreneurial thinking and outcomes such as entrepreneurial behaviors and new venture performance. For example, certain configurations of firms could be high on some elements of EO (e.g., autonomy, innovativeness) but low on others, and some of these patterns may better fit certain settings than others.

In addition, configurational thinking could be used to analyze competitive dynamics within emerging contexts. Scholars have called for examination of first mover advantages from a resource-based perspective (Ketchen, Snow, & Hoover, 2004), and configurational research could provide an impetus for such investigation. Are certain configurations better suited for exploiting a first mover advantage because of their resource configurations, whereas others are better for exploring options in established competitive environments?

International Business

International business research could benefit from applying configurational logic to the analysis of countries and the effects of countries on outcomes. Understanding why some societies invent more than others long has been an important question (Shane, 1992), and one area with great potential is the effects of configurations of countries on innovation and entrepreneurial activity. For example, a geographic region level (e.g., Scandinavia, Latin America, Oceania) and/or configurations of countries based on cultural dimensions following Hofstede's (1979, 1984) dimensions could also provide insights into key relationships. Alternatively, the clusters of countries created by trade agreements such as the North American Free Trade Agreement, the Central European Free Trade Agreement, and the South Asia Free Trade Agreement could serve as a means to understand the effects of countries on innovation and other important national-level outcomes such as entrepreneurial activity.

Conclusion

Our article follows in the footsteps of a *Journal of Management* review of configurational research offered 15 years ago (i.e., Dess et al., 1993). Overall, it is clear from our review that the literature on organizational configurations has played an important role within strategic management and organization theory, and that the literature has important achievements to its credit. We contend, however, that configurational research has yet to realize its potential (cf. Miller, 1996a, 1996b). In an effort to lay a foundation for this potential to be realized, we documented configurational research's recent accomplishments and struggles. We also detailed two specific emphases for future inquiry—leveraging a common vocabulary to systematically build knowledge about organizational configurations, and extending configurational thinking into fields such as human resource management and organizational behavior. Our hope is that scholars will build on these ideas and others such that a review of organizational configurations research offered in another 15 years could chronicle a series of dramatic and pathbreaking advancements.

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