



ANTECEDENTS AND OUTCOMES OF DIVERSITY AND EQUALITY MANAGEMENT SYSTEMS: AN INTEGRATED INSTITUTIONAL AGENCY AND STRATEGIC HUMAN RESOURCE MANAGEMENT APPROACH

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This study examines the development and impact of diversity and equality management systems (DEMS). A national sample of human resource managers from 155 Canadian firms responded to surveys about their firm's diversity and equality management (DEM) practices. Cluster analysis and latent class modeling identified three distinct approaches to DEM: classical disparity DEMS showing limited development of DEM-related practices, institutional DEMS involving complex selection mechanisms and monitoring of employment statistics, and configurational DEMS linking diversity to business strategy. Hypothesis-testing analyses indicated that both institutional and configurational DEMS were predicted by coverage by the Canadian employment equity program, federal contractor status, and the presence of a diversity expert on staff. Only configurational DEMS was predicted by inclusion of HRM in developing business strategy. Configurational DEMS positively predicted the employment of workers with disabilities and members of visible minority groups as well as ROA. These findings support the proposition based on strategic human resource management (SHRM) theory that DEM practices should be considered as bundles and that vertical linkage to strategy is important for DEM effectiveness. As such, SHRM theory explains how managers can structure strategic responses to institutional pressures that go beyond requirements to achieve strategic goals. © 2015 Wiley Periodicals, Inc.

Keywords: strategic human resource management, employment equity, diversity and equality management, business case for diversity, workers with disabilities

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Researchers examining diversity in organizations generally agree that diversity does not have beneficial consequences unless effective diversity and equality management (DEM) is in place (Joshi, Liao, & Roh, 2011; Williams & O'Reilly, 1998). Although managers increasingly devote attention to diversity initiatives (Heres & Benschop, 2010), researchers have not reached consensus on what constitutes an effective DEM system (DEMS). Diversity scholars have suggested that an organization's ability to manage diversity influences its performance (Cox & Blake, 1991), and adopting DEM practices such as diversity training, recruitment monitoring, and promoting minorities improves firm performance beyond the effects of a high-performance work system (Armstrong et al., 2010). Yet little research has examined how performance consideration is reflected in the adoption of DEMS. We have limited guidance on what types of DEM practices are useful and limited theorizing about how DEM practices should fit with the environment, with internal organizational characteristics, or with each other (Martín-Alcázar, Romero-Fernández, & Sánchez-Gardey, 2012).

Our analysis suggests that SHRM theory can enhance understanding of institutional agency to explain how and why managers sometimes exceed institutional mandates to do more than regulations require.

In this study, we define an organization's DEMS as its set of diversity and equality management practices. Taking a strategic human resource management (SHRM) perspective, we suggest that DEMS that are consistent between individual practices and aligned with the business strategy will be more effective in achieving firm goals (Dulebohn, Molloy, Pichler, & Murray, 2009; Way & Johnson, 2005). We develop a broad measure of contemporary DEMS based on prior research and in-depth interviews with DEM practitioners. Prior research has tended to focus on individual practices, and substantial research attention has been devoted to recruiting for diversity (Avery & McKay, 2006; Holzer & Neumark, 2000), diversity training (Kalinowski et al., 2013), and building a positive diversity climate (McKay, Avery, & Morris, 2008; McKay et al., 2007). Our focus on a broad measure of diversity practices is important due to the gap between diversity discourse and practice (Tatli, 2011). Most organizational leaders state that they value diversity and recognize its benefits (Fenwick, Costa, Sohal, & D'Netto, 2011). Internationally, however, DEMS lag behind the rhetoric, with few organizations taking a strategic approach that aligns diversity with business goals

(Cooke & Saini, 2010; Houkamau & Boxall, 2011; Shen, Chanda, D'Netto, & Monga, 2009; Subeliani & Tsogas, 2005). A broad DEMS measure allows us to take a systemic organizational-level approach, consistent with prior recommendations (Olsen & Martins, 2012). Specifically, we examine DEMS practices in recruitment, selection, training and development, work-life interface, statistical monitoring and reporting, strategic planning, mission and values statements, and involvement of senior leadership. Such research has the potential to contribute to theory regarding the combinations of DEM practices through which diversity can be managed effectively.

Theoretically, we contribute depth of insight to the current conversation in the diversity literature about how organizational diversity can be managed to achieve improved performance. Our study complements prior approaches, which focus on the impact of institutional pressures, specifically, government regulation, professional norms, and mimicry of "best practices" (e.g., Kelly & Dobbin, 1998; Konrad & Linnehan, 1995). We contribute a performance-oriented lens to this body of research by drawing upon SHRM theories (Way & Johnson, 2005) to identify and test strategic predictors of DEMS. Our analysis suggests that SHRM theory can enhance understanding of institutional agency to explain how and why managers sometimes exceed institutional mandates to do more than regulations require.

Additionally, we simultaneously examine two types of DEMS outcomes: employment statistics and financial performance. We extend findings from previous studies on women and ethnic minorities by examining a wider range of historically underrepresented groups. Specifically, we compare each firm with the industry average in its percentages of employees and managers who are women, visible minorities, aboriginal people, and persons with disabilities. Also, we examine the possibility that different types of DEMS may result in different employment and performance outcomes. Few studies have examined the impact of DEMS on organizational performance (for an exception, see Armstrong et al., 2010), and more research is needed on this topic. We utilize return on assets (ROA), an outcome measure that is linked to the strategic aims of firms to understand the performance implications of different types of DEMS. ROA is a measure of firm performance that assesses how effectively a company uses human assets, along with other assets. The advantage of this measure is its proximity to the effects of human resources on firm outcomes, relative to other measures of firm performance, such as overall profitability or stock market returns.

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To achieve the previously stated research goals, this study combines survey data on DEMS from 155 Canadian firms with publicly available data on employment statistics ($n = 81$ firms) and firm financial performance ($n = 57$ firms). The conceptual portion of the article is organized as follows. After a brief review of the literature on DEMS and their effect on performance in diverse workplaces, we utilize SHRM theory and an institutional agency approach to lay the theoretical foundation for our contribution, including hypotheses development.

Performance Effects of Diversity Management

Meta-analytic research has shown that the small relationship of diversity to performance in teams is substantially larger when context is considered (Joshi & Roh, 2009; van Dijk, van Engen, & van Knippenberg, 2012). For instance, diversity is more negatively associated with outcomes in long-term than in short-term teams (Joshi & Roh, 2009), and demographic diversity has more negative effects on in-role performance than on innovation (van Dijk, van Engen, & van Knippenberg, 2012). Research has identified factors that enhance the performance of diverse groups, including effective leadership (Ayoko & Konrad, 2012; Kearney & Gebert, 2009), and a diverse management team (Joshi, Liao, & Jackson, 2006). The effect of context on performance in a diverse workplace implies the need for an effective DEMS.

Few studies have examined the impact of DEMS on performance. In a mixed-methods study, Kochan et al. (2003) found that career management practices such as coaching, open communications, and providing challenging assignments reduced the negative effects of racial diversity on team performance. Findings also indicated that DEM practices enhanced the positive effects of gender diversity on constructive processes in teams. Subsequent research has documented positive effects of three types of DEM practices, specifically: (1) positive diversity climate or mind-set (McKay et al., 2008; van Knippenberg, van Ginkel, & Homan, 2013), (2) structures that create inclusiveness in decision making (Dwyer, Richard, & Chadwick, 2003; Richard, Ford, & Ismail, 2006; Richard, Kirby, & Chadwick, 2013), and (3) strategies that focus the firm on innovation (Dwyer et al., 2003; Richard et al., 2006; Richard, McMillan, Chadwick, & Dwyer, 2003). These findings indicate that an effective DEMS combines voice opportunities for members of a diverse workforce with a mind-set that values diversity. These findings also support the importance of linking diversity management to firm strategy, which is

consistent with SHRM theorizing that the value of HRM practices depends on fit with the business strategy (Chow, Huang, & Liu, 2008).

In summary, the performance effect of diversity is likely to be contingent on contextual factors, and one factor of importance that has received little research attention is the organization's DEMS. The findings of prior research suggest that DEMS that create inclusiveness support a climate that values diversity and link diversity to business strategy are most likely to generate positive performance. In the next section, we describe the research context and lay the theoretical foundation for our hypotheses.

Context and Theoretical Background

The context in which a firm operates is an important determinant of its DEMS. This study is situated in the Canadian context, where employment equity programs were first legislated in 1986. Canadian employment equity covers the federal government as an employer as well as all firms with 100 or more employees that operate in federally regulated industries, such as airlines, power generation, banking, and telecommunications. Canada's Employment Equity Act (EEA) requires firms to establish working conditions that are free of barriers to career advancement for four designated groups, specifically, women, aboriginal peoples, persons with disabilities, and "visible" (racioethnic) minorities (Labour Program, 2013a). The Federal Contractors Program was established in 1986 to extend employment equity requirements to firms doing business with the federal government (Labour Program, 2014). Employment equity requires covered firms to analyze the extent to which their employees reflect the availability of the four designated groups in the external labor force. It also requires firms to establish numerical goals and make reasonable efforts and progress toward achieving those goals (Labour Program, 2013a). Firms report their employment statistics annually to the Canadian government, which produces an annual on-line report rating each firm on its employment equity effectiveness (e.g., Labour Program, 2013b). As such, the effectiveness of Canadian firms in the DEM area is very transparent to the general public and the industry.

The institutional perspective on firm behavior focuses on the impact of environmental pressures such as government regulations on organizational practices (Scott, 2000) and, as such, is highly relevant to the development of DEMS (Dobbin, Sutton, Meyer, & Scott, 1993; Edelman, 1992; Konrad & Linnehan, 1995). Institutional theory has long recognized that organizations are exposed to powerful institutional pressures and rules, which both

enable and constrain organizational action and give meaning to social life (Scott, 2000). Previous authors have argued that institutional dynamics apply to HRM practices, arguing that HRM is subject to rules and structures in the institutional context (Paauwe, 2004; Powell & Colyvas, 2008). For instance, Boon, Paauwe, Boselie, and Den Hartog (2009) propose the concept of institutional fit for HR, as the “alignment between HRM and the institutional environment” (p. 493). In comparison to SHRM, the study of DEM suffers from greater causal ambiguity regarding performance and a more restrictive institutional environment. As such, firms face stronger institutional pressures and have less certainty regarding beneficial outcomes in the DEM field.

Institutional theory offers a rich account of how organizations attempt to obtain legitimacy and support by complying with regulative, normative, and cognitive pressures (DiMaggio & Powell, 1983). Early research emphasized the saliency of these pressures whereby organizations were assumed as passive receptors of legitimate ideas (Goodstein, 1994, 1995; Ingram & Simons, 1995). Later versions of institutional theory argue that institutional pressures are not fully deterministic and that firms can actively employ various responses (e.g., Hirsch & Lounsbury, 1997; Oliver, 1991, 1997). Consistent with these arguments, Boon et al. (2009) show that firms structure their HRM practices in ways that balance competitive and institutional pressures through leeway, strategic choice, and agency.

Oliver’s (1991, 1997) work fits more broadly in a collection of advances that integrate agency into neo-institutional theory (DiMaggio, 1988; Fligstein, 1997). Oliver (1991) identified five strategic responses to institutional pressures ranging from acquiescence or full compliance to various degrees of resistance. Her framework has received empirical support (e.g., Clemens & Douglas, 2005). Prior research has emphasized multiple factors as explaining whether and how organizations react strategically to institutional pressures (Goodstein, 1994; Julian, Ofori-Dankwa, & Justis, 2008). This prior work on institutions and institutional change implies that organizations differ in how much they adhere to existing institutions or, alternatively, take strategic actions to manage their organizational responses to institutional pressures. Yet it remains unclear what occurs within organizations in terms of acceptance and

implementation of legitimated practices (Gondo & Amis, 2013). Also, organizations tend to adopt a variety of practices as a response to institutional pressure. How different institutionalized practices relate to each other is unclear in this framework.

We seek to extend Oliver’s (1991, 1997) conceptualizations to firm actions that go beyond compliance with basic institutional pressures by doing more than is required. Such actions differ from other types of strategic responses in which institutional pressure is viewed as contrary to firm interests (Oliver, 1991). Drawing on recent advances in institutional theory (e.g., Lawrence, Suddaby, & Leca, 2011), we highlight the enabling role of firm agency in developing responses to institutional pressures, utilizing DEMS as an example. Underlying macrodynamics of social and economic changes are individual agents, who structure institutions while at the same time being embedded in such structures (Lawrence et al., 2011). “Institutional work” (Lawrence & Suddaby, 2006) provides room for the “purposive action of individuals and organizations aimed at creating, maintaining and disrupting institutions” (p. 215). Often, contradictions exist between institutions, and institutional work can reconcile “tension between contradictory elements as a source of innovation” (Hargrave & Van de Ven, 2006, p. 120). Therefore, organizations can actively seek benefits from institutional demands and find new practice combinations that work. As a result, while many Canadian firms are regulated by employment equity, the DEMS of some firms differ from and extend institutional approaches.

SHRM (Way & Johnson, 2005), with its focus on bundles of practices (Subramony, 2009) has the potential to explain such variation in firm responses to DEM-related institutional pressures. A set of HRM practices forms a “bundle” when the individual practices work together to create a consistent set of actions reflecting an intentional HR strategy (MacDuffie, 1995). Consistency within a bundle enhances the effectiveness of each individual practice by building pathways and removing barriers to goal attainment. As a DEM example, combining identification of feeder pools of strong diversity candidates with structured selection interviews based on job qualifications increases the likelihood of hiring a diverse set of candidates beyond the use of each of these practices in isolation. SHRM theory also proposes that the effectiveness of HRM bundles is determined by vertical “fit,” which refers to the extent to which a bundle of practices is aligned with business strategy (B. E. Becker & Huselid, 2006). The propositions regarding the importance of bundling and vertical fit for HRM effectiveness have received substantial

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empirical support (Subramony, 2009). We apply the SHRM propositions regarding bundles and vertical fit to develop hypotheses about effective DEMS.

Hypothesis Development

Empirical studies have documented various antecedents of DEMS, specifically, government regulation, industrial sector, organizational size, and leadership (Cooke & Saini, 2010; Edelman, 1992; Konrad & Linnehan, 1995; Moore, Parkhouse, & Konrad, 2001; Woodhams & Corby, 2007). However, prior research has not linked strategic antecedents to the development of DEMS in a quantitative study. While institutional pressures partly explain the development of DEMS, these systems are most likely to be extended beyond regulatory requirements when they are vertically linked to business strategy. In this section, we draw on SHRM theory to develop hypotheses regarding the development and effectiveness of DEMS.

Types of DEMS

In a context such as Canada, where employment equity legislation has been institutionalized for decades, three types of DEMS can be anticipated. First, many Canadian firms are not covered by employment equity regulations because they are too small, are operating in an industry that is not covered, and/or are not federal contractors. Without institutional pressure to develop a DEMS, decision makers are free to follow the neo-classical economic philosophy that denies the existence of labor market discrimination (G. S. Becker, 1971). In this view, employment equity's interference in labor market processes represents few benefits while being costly to the firm. Consistent with this reasoning, French (2001) observed that 12 percent of the 1,961 Australian firms in her sample had implemented few employment equity practices. She named this minimal bundle of DEM practices "classical disparity structures." We use similar language in this article to identify "classical disparity DEMS," defined as DEMS that include relatively few employment equity, diversity, or inclusion practices.

Among Canadian firms that are covered by employment equity, two distinct types of DEMS are anticipated. The first anticipated bundle concerns the firm's staffing practices because the staffing function is directly affected by employment equity requirements (Labour Program, 2013a). Employment equity requires firms to collect statistics about their current employees to compare their internal workforce representation to the external availability of the four designated groups. For any identified gaps, firms are required

to set goals and to identify and remove potential barriers experienced by the designated groups in order to demonstrate reasonable progress and reasonable efforts to achieve the goals. Examples of staffing practices adopted in response to employment equity include identifying feeder pools likely to generate a diverse set of qualified job candidates, designing recruiting materials aimed at attracting a diverse group, and utilizing a structured interviewing process. Together, these three practices constitute an example of a DEMS bundle that aligns multiple activities to remove barriers to diversity hiring that can be directly linked to employment equity regulation. We label bundles of DEM-related staffing practices "institutional DEMS."

Theory and research on firm agency in responding to institutional pressures implies that some decision makers will take a strategic approach to dealing with employment equity regulations (Oliver, 1991, 1997). Where strong institutional pressures exist, firms may engage in institutional work (Lawrence & Suddaby, 2006; Lawrence et al., 2011) whereby they develop process innovations to align institutional goals with their strategic aims. DEM professionals have engaged in substantial institutional work, aligning employment equity goals with business goals in the well-known "business case for diversity" (Vican & Pernell-Gallagher, 2013). The business case for diversity argues that diverse firms will perform better due to (1) access to high-quality employees, (2) ability to sell to a diverse set of customers, and (3) creativity and problem solving due to an increased variety of knowledge and perspectives (Cox & Blake, 1991). While the business case has received important scholarly criticism (e.g., Bendick, Egan, & Lanier, 2010; van Dijk, van Engen, & Paauwe, 2012), it is commonly cited in practice business, so much so that it has been deemed a "management fashion" (Heres & Benschop, 2010).

Like the institution of employment equity, the business case for diversity includes a focus on staffing, and, as such, decision makers adopting the business case are likely to develop DEM-related staffing practices to remove barriers and enhance career development for the designated groups. But firms that consider diversity to have strategic value are likely to create superior DEM staffing bundles that fully cover the staffing system from the identification of feeder pools to the recruitment and selection of diverse candidates through to motivation and career development of a diverse group of employees. While institutional DEMS include the practices mandated by employment equity, firms with strategic interest in diversity are more likely to exceed employment equity

mandates by including the full bundle of DEM-related staffing practices in order to consistently support the career development of a diverse set of employees.

Furthermore, beyond the staffing aspects of DEM, the business case for diversity adds a focus on ability to sell to a diverse customer base and the value of diverse decision-making teams to enhance creativity and problem solving (Cox & Blake, 1991). As such, firms adopting the business case for diversity are likely to go beyond the requirements of employment equity by adding diversity marketing practices such as reflecting diversity in products or services and in marketing and sales messages. The business case for diversity also emphasizes the importance of DEM leadership. Firms adopting the business case are there-

We define the configurational DEMS bundle as a combination of strategic and institutionalized DEM practices that cover the multiple facets of the business case for diversity as well as institutional requirements.

fore likely to create leader support for a positive diversity climate and to build a diverse leadership group so that decision-making teams include a variety of knowledge and perspectives. As such, we anticipate observing a “configurational DEMS” bundle that goes beyond staffing systems to include links to the business strategy, links to the market, and efforts to develop a diverse leadership team. Consistent with this more strategic view, we define the configurational DEMS bundle as a combination of strategic and institutionalized DEM practices that cover the multiple facets of the business case for diversity as well as institutional requirements.

Antecedents of DEMS

Given the Canadian context of strong institutional pressures toward employment equity, both institutional and strategic factors need to be taken into consideration when predicting a firm’s DEMS. Employment equity regulations constitute coercive institutional pressures on covered firms because these regulations create requirements that firms must adhere to or else risk punitive consequences (Scott, 2000). For federal contractors, a finding of noncompliance can result in losing the right to bid on federal contracts (Labour Program, 2014). For other firms, noncompliance can result in the publication of a low rating in the annual online employment equity report (e.g., Labour Program, 2013b). In response to this coercive pressure, firms that are covered by the EEA or the Federal Contractors Program are more likely than noncovered firms to develop institutional or configurational DEMS.

Coverage by the EEA or the Federal Contractors Program is insufficient to differentiate between development of either institutional or configurational DEMS because both include DEM staffing practices. Firms not covered by the EEA or the Federal Contractors Program are more likely to develop classical disparity DEMS.

Hypothesis 1: Coverage by the EEA or the Federal Contractors Program is positively associated with institutional and configurational DEMS.

Hypothesis 2: Coverage by the EEA or the Federal Contractors Program is negatively associated with classical disparity DEMS.

However, the business case for diversity provides the foundation for a strategic response to employment equity pressures. The business case for diversity goes beyond employment equity’s focus on the staffing function and may include marketing and decision-making processes in the firm (Cox & Blake, 1991). The business case for diversity can be considered an example of a normative pressure on firms under the classic DiMaggio and Powell (1983) framework. Based on the business case for diversity, organizations develop many DEM practices that are not required by the EEA because professionals and their associations identify the practices as benchmarks for the “best” or “state-of-the-art” management (e.g., Anonymous, 2013; Clemons, 2013; Magarey, 2013). Because normative institutional pressures do not involve coercive punishments, managers have agency to be able to respond strategically to the business case for diversity (Oliver, 1991, 1997). For example, organizations may develop alternative practices as substitutes for nonmandatory but recommended practices (Okhmatovskiy & David, 2012), or they may only symbolically comply with normative institutional demands (Fiss & Zajac, 2004). We emphasize, however, that managers can also comply with normative institutions in ways that achieve their strategic goals by adopting configurational DEMS tailored to the firm’s organizational and strategic needs. These configurations are more than just symbolic, where mere appearance of compliance is achieved, but are substantive, such that positive performance outcomes are sought in order to utilize the costly asset of workforce diversity.

Firms are more likely to develop configurational DEMS if the business case for diversity is consistent with their strategic goals. Firms that are international in scope, with employees outside of Canada, have a strategic interest in accommodating a variety of cultures, and are therefore likely to

view the business case for diversity as relevant to their goals. While all Canadian firms face diversity domestically, international operations add an additional level of diversity that domestic firms do not need to consider. As such, firms with a strategy of internationalization are more likely to develop a configurational DEMS in order to achieve vertical alignment between strategy and HRM practices (Way & Johnson, 2005).

Hypothesis 3a: International scope is positively associated with configurational DEMS.

SHRM theory argues that HRM systems are more effective when their component practices are consistent with each other (Subramony, 2009). Consistency among HRM practices aligns organizational processes to build pathways and remove barriers to goal attainment (Way & Johnson, 2005). Utilization of teams is an HRM practice that brings employees together to innovate and solve problems for the firm (Cappelli & Neumark, 2001). In the context of a diverse workplace, DEMS may be implemented to help diverse teams of employees work together more effectively. Firms that utilize teams in their work processes may also implement DEMS to enhance workplace diversity in order to generate greater team creativity and problem-solving effectiveness.

Hypothesis 3b: Utilization of team structures is positively associated with configurational DEMS.

Another potential predictor of firm DEMS is the presence of a diversity expert on staff. Firms that see value in diversity for achieving strategic goals are more likely to make the investment of adding a diversity expert to the staff. This investment helps to vertically align internal practices with business strategy (Way & Johnson, 2005) by bringing DEM knowledge into the firm and creating accountability for DEM effectiveness (Kalev, Dobbin, & Kelly, 2006). Firms that have a diversity expert on staff are likely to be more knowledgeable about the business case for diversity and its implementation, and are likely to develop configurational DEMS as a result of professional benchmarking practices.

Hypothesis 3c: Presence of a diversity expert on staff is positively associated with configurational DEMS.

Finally, including HRM in developing business strategy is likely to predict the development of DEMS. Firms that include HRM in developing business strategy are more likely to achieve vertical alignment between business strategy and

DEMS because the voice for the importance of talent management to firm performance is present during strategic discussions (Way & Johnson, 2005). Such firms are more likely to develop configurational DEMS because they view the link between talent management and strategy as critical to business success.

Hypothesis 3d: Inclusion of HRM in developing business strategy is positively associated with configurational DEMS.

Outcomes of DEMS

An effective DEMS is intended to accomplish a variety of goals, depending on the type of DEMS in place. Only two prior studies have examined the possibility that distinct DEMS might have specific effects on employment outcomes, and those studies only examined the impact of DEMS on the representation of women and racial/ethnic minorities in management (French, 2001; Konrad & Linnehan, 1995). The Canadian institution of employment equity targets the four designated groups of women, visible minorities, persons with disabilities, and aboriginal people. As such, one of the intended outcomes of institutional DEMS in Canada is an internal workforce that reflects the percentages of the four designated groups in the external labor pool. Because configurational DEMS also include a focus on staffing for diversity, these structures should also be associated with employment of the designated groups. By comparison, classical disparity DEMS are relatively unconcerned with reflecting the extant labor pool, under the philosophy that employment outcomes reflect qualifications and preferences and should not be subject to government regulation.

Hypothesis 4: Compared to institutional and configurational DEMS, classical disparity DEMS will be associated with lower levels of employment of groups designated by Canadian employment equity.

Beyond changing employment statistics, the business case for diversity argues that effective DEMS will create value for firms. While some studies have linked workforce diversity at the firm level to performance outcomes such as revenues and

market share (Frink et al., 2003; Herring, 2009), and others have found that such a link depends on firm strategy (e.g., Richard, 2000), little is known about the association between DEMS and firm financial performance. Armstrong et al. (2010) documented that DEMS are positively associated with productivity and negatively related to voluntary turnover. Such findings require replication and extension to measures of firm profitability to further test the claims of the business case for diversity.

SHRM theorizing supports the idea that configurational DEMS will be more strongly positively associated with firm financial performance than classical disparity or institutional DEMS. SHRM theory's vertical linkage proposition suggests that DEM practices are more likely to contribute value to the firm if they are consistent with and linked to strategy. The rationale behind this proposition is that structural alignment between an organization's key processes and its goals, objectives, and strategies facilitates effective strategy implementation (Way & Johnson, 2005). As a key organizational process, a DEM is more likely to be associated with attainment of firm goals if it is aligned with the firm strategy. Configurational DEMS fit this requirement because it links to markets and decision making and is likely to be associated with leadership that places strategic value on DEM. Hence, positive performance outcomes from DEMS will be reflected in how effectively and efficiently a diverse workforce is managed, which is captured by the return on asset (ROA) ratio.

Applying the logic of vertical alignment to the business case for diversity suggests that to achieve value from diversity, a DEMS must align attraction, motivation, and retention of a diverse talent pool through DEM-related staffing practices while also providing a diverse set of talented workers with participation in key organizational decision processes through leadership opportunities. To fully garner the potential of a diverse workplace, the firm must also connect effectively with diverse customers, and diverse employees can help the firm to accomplish that aim. The present study does not include marketing, leadership, and decision-making effectiveness as measured mediators, treating them as unmeasured theoretical mechanisms through which diversity practices affect performance. As such, configurational DEMS, which combine staffing with strategically linked diversity practices, are more likely to generate the synergies accrued through vertical alignment of the DEMS bundle, generating higher ROA for a firm.

Hypothesis 5: Compared to classical disparity and institutional DEMS, configurational DEMS will be associated with higher ROA.

Method

Data Collection

We developed a survey to measure DEMS in Canadian organizations. The survey was carefully designed on the basis of the extant literature (French, 2001; Konrad & Linnehan, 1995; Leck & Saunders, 1992; Leck, St. Onge, & LaLancette, 1995) and with input from Canadian human resource managers and Canadian line managers in the banking, telecommunications, petroleum products, engineering, power generation, and consulting industries. In-depth interviews were conducted with seven Canadian managers and consultants specializing in managing diversity. In these interviews, HRM practices for managing diversity were identified. The first draft of the survey was distributed to a pilot sample of six diversity management specialists, who provided comments on the survey form. Hence, the survey was grounded in practitioners' knowledge, relevant to the population of Canadian organizations, and up to date in content.

The final four-page survey form focused on survey items assessing six types of DEM practices (Table I). Six indices were created by counting the number of practices implemented at each responding firm: (1) linking diversity to strategic business goals and human resource planning (8 items, $\alpha = .85$), (2) recruiting a diverse staff (5 items, $\alpha = .71$), (3) selecting a diverse staff (4 items, $\alpha = .70$), (4) training and developing a diverse staff (4 items, $\alpha = .51$), (5) monitoring the effectiveness of staffing for diversity (4 items, $\alpha = .78$), and (6) providing work-life flexibility (7 items, $\alpha = .89$). Factor analysis indicated that each of the six DEM indices were one-dimensional. Measurement invariance tests (MacCallum & Austin, 2000) indicated that the items loaded similarly across manufacturing and service firms for the DEM indices of recruiting, selecting, monitoring effectiveness, and providing work-life flexibility (nos. 2, 3, 5, and 6) but not for the indices of training and linking diversity to strategy (nos. 1 and 4). Given the conceptual importance of these indices, we retained them and controlled for industry sector in all hypothesis-testing analyses.

In fall 2004 and spring 2005, we mailed the survey to the HR managers of 935 firms. The sample of firms included those organizations with at least 100 employees that were either listed in the *Globe and Mail* 1,000 largest companies or had submitted an employment equity report in 2002 (the most recent set of reports available online to the public at the time). HR managers from 155 medium- to large-sized Canadian organizations responded to the survey (17.6 percent response

TABLE I Survey Questions Assessing DEM PracticesLinking Diversity to Strategy (8 items, $\alpha = .85$)

Does your company ...

1. Include valuing diversity in the company's mission or values statement?
2. Have a clear understanding of how diversity is linked to bottom-line performance?
3. Align diversity strategy with the business strategy?
4. Have an internal diversity/inclusiveness committee or council?
5. Do senior executives participate on the internal diversity committee?
6. Does the internal diversity committee participate in strategic business planning?
7. Include diversity goals in the strategic human resource plan?
8. Set goals for achieving staff diversity for specific positions?

Recruiting a Diverse Workforce (5 items, $\alpha = 0.71$)

Does your company ...

1. Identify feeder pools likely to generate a diverse set of qualified job candidates?
2. Support job fairs targeting diverse candidates?
3. Design recruiting materials aimed at attracting a diverse group?
4. Utilize a diverse group of recruiters?
5. Utilize search firms or employment agencies specializing in finding a diverse set of qualified candidates?

Selecting a Diverse Workforce (4 items, $\alpha = .70$)

Does your company ...

1. Utilize a structured interviewing process?
2. Identify ways that candidates can demonstrate job qualifications beyond traditional experiences?
3. Require hiring managers to interview a diverse group of candidates?
4. Use a diverse team to interview candidates?

Training and Developing a Diverse Staff (4 items, $\alpha = .51$)

Does your company ...

1. Offer internal leadership development training?
2. Have a formal mentoring program?
3. Ensure that a diverse group of employees is receiving mentoring?
4. Support employee participation in professional associations targeting diverse groups, such as women's professional associations?

Monitoring the Effectiveness of Staffing for Diversity (4 items, $\alpha = .78$)

Does your company ...

1. Track applicant diversity?
2. Track the diversity of candidates invited for interviews?
3. Track the diversity of new hires?
4. Track the diversity of employees receiving promotions?

Providing Work-Life Flexibility (7 items, $\alpha = .89$)

Does your company offer ...

1. Flexible work scheduling?
2. Work-at-home option?
3. Job sharing?
4. Reduced work hours?
5. Modified work week, such as a compressed work week (fewer than 5 days)?
6. Part-time employment for professional/technical/managerial staff?
7. Dependent care resource and referral service?

Note: Response options to all items were coded as: yes or formally = 1, no or informally = 0.

rate after four mailings and at least one telephone contact). Respondents received a summary report of the results. Although a higher response rate is desirable, our response rate is close to the average for surveys of HRM practices (17.4 percent; Datta, Guthrie, & Wright, 2005).

We also checked for nonresponse bias. The nonrespondents were not significantly different from the respondents in terms of their average revenue and numbers of employees. However, the distribution of industries in the sample was significantly different from the population. Among the respondents, 41.3 percent of the companies operated in transportation; 17.3 percent in finance, insurance, and real estate; and 14 percent in manufacturing, compared to 37.2 percent, 12.5 percent, and 19.8 percent, respectively, for the population. Therefore, the results may not reflect the population.

cluster agglomeration schedule, a list of coefficients that increase in magnitude depending on the similarity of the clusters being joined. Large increases in the agglomeration coefficient are interpreted as indicating that dissimilar clusters are being joined (Ketchen & Shook, 1996). Based on cluster agglomeration coefficients and theoretical meaningfulness, we identified three clusters in the data.

There is no significance test to determine the proper number of clusters in cluster analysis, and the final result is derived by combining empirical results with theory (Hair, Anderson, Tatham, & Black, 1995). For this reason, we reanalyzed the data using latent class analysis to check the robustness of our conclusion that three distinct clusters of firms were extant in our sample. Latent class analysis differs from cluster analysis in that it is estimated by maximum likelihood and the number of clusters is determined by goodness-of-fit criteria (de Menezes, 1999). Bootstrapped χ^2 difference tests indicated that three clusters fit the data better than two clusters ($\chi^2 = 52.8, p < .001$) and that four clusters did not fit the data better than three clusters ($\chi^2 = 19.6, ns$). As such, results of the latent class analysis validated our conclusion that three clusters of firms with distinct DEMS were present in our data.

The cluster analysis findings are shown in the top panel of Table II. The findings of the latent class analysis are similar but not identical (see Table II, bottom panel), as is commonly the case (de Menezes & Wood, 2006). De Menezes and Wood (2006) argue that findings from a latent class analysis are preferred for large samples such as theirs (over 2,000 firms). Our sample is relatively small ($n = 155$ firms), and for comparability with prior research, we depict the cluster analysis findings in our tables and treat the findings from the latent class analysis as a robustness check (shown in the appendices). Importantly, the findings indicate that the differences among the three clusters are not simply linear with high, medium, and low levels of DEM practices. Rather, the findings indicate nonlinear differences where clusters are similar in some areas and different in others, supporting the SHRM proposition that firms develop bundles of DEM practices to create distinct DEMS.

The first cluster, which represents 43 organizations in our sample (31 percent), showed low levels of DEM practices in all seven areas, which we labeled the “classical disparity” DEMS, following French (2001). The classical disparity cluster showed a significantly lower mean on four of the six indices of DEM practices compared to the institutional cluster, and all six indices compared to the configurational cluster. Similarly, the classical disparity cluster identified by latent class

<i>The summative approach ignores the possibility that different practices can create synergies or substitute for each other, hence assuming that “more HRM is better.”</i>	Measures DEMS
	We identified the number and types of DEMS extant in the sample of firms by conducting a cluster analysis based on organizational scores for the six indices of DEM practices, which is “the standard statistical procedure for identifying groups in a multivariate space” (de Menezes & Wood, 2006, p. 113). Cluster analysis does not assume linear relationships between variables, but rather, identifies common characteristics in the data to identify groups (Festing, Schäfer, & Scullion, 2013). B. E.

Becker and Gerhart (1996) recommend the use of cluster analysis to develop a system measure as an alternative to creating a summative score across HRM practices. The summative approach ignores the possibility that different practices can create synergies or substitute for each other, hence assuming that “more HRM is better.” Clustering firms to achieve data reduction is more consistent with SHRM theorizing because it reflects the possibility that firms align bundles of HRM practices to generate positive outcomes at minimal cost. For this reason, cluster analysis is a commonly used data reduction technique in SHRM studies (e.g., Arthur, 1992; French, 2001; Kang, Snell, & Swart, 2012; MacDuffie, 1995; Segers & Inceoglu, 2012).

We applied hierarchical cluster analysis to the six indices of DEM practices to identify clusters of firms evidencing different DEMS, using the Euclidean distance between cluster centroids and the between-groups linkage method of forming clusters. Hierarchical cluster analysis produces a

TABLE II Mean Cluster Values on DEM Indices

DEM Index	Cluster Analysis		
	Configurational	Institutional	Classical Disparity
Linking Strategy to Diversity	.60 ^a	.25 ^b	.05 ^c
Recruiting for Diversity	.63 ^a	.22 ^b	.06 ^c
Selecting for Diversity	.46 ^a	.50 ^a	.12 ^b
Training/Developing Diverse Staff	.53 ^a	.37 ^b	.16 ^c
Monitoring DEM Effectiveness	.67 ^a	.40 ^b	.02 ^c
Providing Work-Life Flexibility	.59 ^a	.26 ^b	.12 ^b
Number of Firms	45	50	43
DEM Index	Latent Class Analysis		
	Configurational	Institutional	Classical Disparity
Linking Strategy to Diversity	.47 ^a	.25 ^b	.06 ^c
Recruiting for Diversity	.48 ^a	.20 ^b	.06 ^b
Selecting for Diversity	.47 ^a	.35 ^a	.16 ^b
Training/Developing Diverse Staff	.52 ^a	.31 ^b	.13 ^c
Monitoring DEM Effectiveness	.50 ^a	.36 ^a	.12 ^b
Providing Work-Life Flexibility	.46 ^a	.25 ^b	.15 ^b
Number of Firms	61	46	31

Note: Mean values in the same row with different superscripts (a, b, or c), are significantly different at the $p < .05$ level as indicated by one-way ANOVA with Scheffé simple effects tests.

analysis showed significantly lower levels of DEM practices on three of the six indices of DEM practices compared to the institutional cluster and all six indices compared to the configurational cluster. However, this cluster is smaller in the latent class analysis (31 organizations representing 22.8 percent of responding firms).

The second pattern (Table II, top panel), which represents 50 organizations in our sample (36%), showed equally high levels of DEM selection practices as configurational DEMS accompanied by levels of DEM strategy, recruiting, training, and monitoring that were lower than firms with configurational DEMS (but higher than firms with classical disparity DEMS). This cluster showed a similarly low level of work-life flexibility practices as firms with classical disparity DEMS. We labeled this pattern "institutional DEMS" because Canadian case law has legitimated certain selection practices and delegitimated others (e.g., a number of interview questions are illegal in Canada, such as questions about gender, ethnicity, family structure, or disability status). Also, the EEA requires the monitoring of employment statistics to provide the numbers needed for the annual employment equity report (required only of certain industries and much more evident in institutional and configurational DEMS than in the classical disparity DEMS). The institutional DEMS identified by latent class analysis

was similar and showed equally high levels of DEM selection and monitoring practices as configurational DEMS accompanied by levels of DEM strategy and training that were lower than firms with configurational DEMS (but higher than firms with classical disparity DEMS). Institutional DEMS from the latent class analysis showed similarly low levels of DEM recruiting and work-life flexibility as classical disparity DEMS. This pattern represented 46 firms (33 percent) in the latent class analysis (Table II, bottom panel).

The third pattern, which represents 45 organizations in our sample (33 percent), showed higher levels on five of the six DEM practices (all except for selection) compared to institutional DEMS and higher levels of all six DEM practices compared to classical disparity DEMS. We labeled this pattern "configurational DEMS" because these firms showed high levels of the institutional practices (recruiting, staffing) as well as high levels of marketing (reflecting diversity in products/services, marketing/sales messages), leadership (evaluating managers on DEM, linking managerial compensation to DEM, ensuring that a diverse set of employees receive mentoring), and strategic practices linking diversity to the business strategy (an SHRM plan that includes a focus on diversity). Latent class analysis indicated a similar configurational DEMS pattern with higher levels of four of the six DEM practices (all except selection and

monitoring) compared to institutional DEMS and higher levels of all six DEM practices compared to classical disparity DEMS. This cluster is larger in the latent class analysis (61 firms, or 44 percent of respondents; Table II, bottom panel).

In sum, the cluster and latent class analysis findings are consistent with the theorizing in the conceptual portion of this article. Three DEMS are identified among the firms in this sample consistent with the Canadian historical, legal, and business context.

Antecedents of Diversity Systems

Survey respondents indicated whether the firm was subject to the EEA and/or a signatory to the Federal Contractors Program (Edelman, 1992; Konrad & Linnehan, 1995). Team-based management practices were measured with a four-item index of items drawn from prior research (Cappelli & Neumark, 2001; Datta et al., 2005; Gerhart, Wright, McMahan, & Snell, 2000; Ichniowski, Shaw, & Prennushi, 1997) asking what percentage of employees work in self-managing teams, problem-solving or quality groups, project teams or task forces, and employee policy or strategy committees. Index values represent mean scores across the four items (1 = none, 2 = 1–20%, 3 = 21–40%, 4 = 41–60%, 5 = 61–99%, and 6 = all; $\alpha = .72$). International scope was measured with a survey item asking whether the firm had employees in foreign operations (1 = yes, 0 = no) (Walsworth, 2007). Survey items also assessed whether the HR manager was included in the development of business strategy (1 = yes, 0 = no), and whether the organization had a diversity expert on staff (1 = yes, 0 = no). Firm size (number of employees) was statistically controlled following prior studies (e.g., Edelman, 1992; Goodstein, 1994; Konrad & Linnehan, 1995).

Outcomes of Diversity Systems

Of the 155 respondents to our survey, 57 were public companies with data on firm financial performance available from the 2003, 2004, and 2005 Canadian files of COMPUSTAT. We calculated ROA as net income or loss divided by the average of the current and previous year's total assets.

Of the 155 respondents to our survey, 81 had filed employment equity reports reporting the percentage of employees in designated employment equity groups employed by the firm overall and in management positions in 2005. We subtracted the average percentages of women, aboriginal people, people with disabilities, and "visible" (racioethnic) minorities across Canada and within 59 industries (e.g., trucking, telecommunications, based on a Canada-wide total of 500 to 600 firms reporting to Human Resources & Social Development Canada,

2006) from the individual firm's percentage. Hence, a positive (negative) difference indicates that the percentage of designated group members is higher (lower) than the Canadian or industry average. Means, standard deviations, and correlations among study variables are shown in Table III.

Analysis

Our hypothesis-testing analyses utilize the three types of DEMS identified by cluster analysis as dependent (Hypotheses 1, 2, and 3a through 3d) and independent variables (Hypotheses 4 and 5). Our robustness analysis tests these same hypotheses with DEMS generated from the latent class analysis, indicating the probability that each firm in the sample belongs to each of the three clusters. While the clusters are categorical variables indicating each of the three types of DEMS (1 = yes, 0 = no), the latent class probabilities are continuous variables indicating the likelihood that each firm adopts each type of DEMS (ranging from 0 to 1). As such, the latent class probabilities overcome the problem that cluster categories do not reflect variation within clusters (Shaw, Delery, Jenkins, & Gupta, 1998).

Nominal regression analysis was used to predict DEMS as the dependent variable. Hypothesized predictors were coverage by the EEA and/or the Federal Contractors Program (Hypotheses 1 and 2), international scope (Hypothesis 3a), utilization of team structures (Hypothesis 3b), presence of a diversity expert on staff (Hypothesis 3c), and inclusion of HRM in development business strategy (Hypothesis 3d). Control variables were firm size and industry sector (service or manufacturing). Robustness analysis used the same set of predictors in ordinary least squares (OLS) regression analysis to predict the probability that each firm developed each of the three types of DEMS identified in the latent class analysis.

To predict the impact of DEMS on outcome variables, the DEMS categories from the cluster analysis were used as independent variables in regressions predicting ROA (Hypothesis 5) and employment-designated EEA groups (women, visible minorities, aboriginal people, and persons with disabilities) (Hypothesis 4). Control variables were firm size, industry sector, and EEA coverage. Robustness analysis used the latent class probabilities as the key predictor of ROA and employment statistics for the four designated groups.

Results

Predictors of DEMS

Table IV shows the results of the nominal regression analyses used to predict whether the organization

TABLE III Means, Standard Deviations, and Correlations

	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
1. Configurational Cluster (1 = Y, 0 = n)	.27	.45	1																				
2. Institutional Cluster (1 = Y, 0 = n)	.34	.47	-.44	1																			
3. Classical Disparity Cluster (1 = Y, 0 = n)	.28	.45	-.38	-.45	1																		
4. Probability Configurational Latent Class	.40	.45	.55	-.16	-.47	1																	
5. Probability Institutional Latent Class	.35	.41	-.22	.23	-.05	-.55	1																
6. Probability Classical Disparity Latent	.25	.41	-.37	-.05	.57	-.55	-.40	1															
7. Governed by EEA (1 = Y, 0 = n)	.75	.43	.25	.09	-.39	.32	.02	-.37	1														
8. Federal contractor (1 = Y, 0 = n)	.16	.37	.12	.05	-.28	.42	-.19	-.27	.20	1													
9. International Scope (1 = Y, 0 = n)	.39	.49	.01	-.06	-.05	.15	-.01	-.16	-.11	.10	1												
10. Utilization of Teams	3.81	2.92	.11	-.09	-.15	.28	-.12	-.19	.25	.05	.03	1											
11. Diversity Expert on Staff (1 = Y, 0 = n)	.33	.47	.36	.00	-.39	.47	-.20	-.32	.35	.37	.04	.13	1										
12. Inclusion of HRM in Strategy Development	.82	.39	.18	.04	-.33	.28	-.15	-.16	.06	.21	.14	.17	.28	1									
13. Firm Size (1 = large, 0 = small)	.49	.50	.13	-.05	-.13	.30	-.07	-.26	.05	.21	.22	.09	.32	.27	1								
14. Industry (1 = service, 0 = manufacturing)	.68	.47	-.02	.16	-.05	-.17	.12	.06	.06	-.07	-.29	-.16	-.06	-.07	-.23	1							
15. Mgrs with disabilities — National average	-.03	.00	.26	.16	.06	.27	-.21	-.10	.18	.06	.02	.01	.32	.14	.10	.14	1						
16. EEs with disabilities — National average	.00	.02	.45	-.21	-.23	.35	-.28	-.13	.21	-.08	-.09	.13	.28	.20	.01	.10	.55	1					
17. EEs with disabilities — Industry average	.03	.01	.33	-.23	-.03	.31	-.20	-.17	.19	.09	.02	.25	.41	.08	.10	.12	.33	.48	1				
18. Visible Minority EEs — National average	-.06	.09	.18	-.08	-.10	.18	-.22	.02	.09	.02	.12	.02	.03	.13	.26	.11	.26	.27	.20	1			
19. Visible Minority EEs — Industry average	-.02	.07	.25	-.08	-.20	.16	-.19	.01	.22	-.08	.07	.16	.01	.13	.24	-.11	.22	.36	.19	.77	1		
20. ROA2004	.00	.00	.20	-.47	.21	-.13	-.09	.23	.02	-.09	.11	-.18	.12	.02	.15	.17	-.38	.16	.26	-.52	.21	1	
21. ROA2005	.04	.14	.06	-.39	.08	-.25	.16	.12	-.31	-.04	.03	-.29	-.04	.03	.14	.01	-.44	.02	.25	.01	.51	.64	1
Listwise N																							110

Notes: Correlations among variables 1–14 utilized listwise deletion of missing data. For this group, correlations of magnitude > .19 are significant at $p < .05$, while correlations of magnitude > .25 are significant at $p < .01$.

Correlations of variables 15–21 with all others utilized pairwise deletion of missing data because many firms did not have employment statistics or financial performance numbers publicly available. For this group, correlations of magnitude > .26 are significant at $p < .05$, and correlations of magnitude > .31 are significant at $p < .01$.

TABLE IV Predictors of DEM System Clusters

Predictor	DV: DEM Systems						
	Configurational			Institutional			Classical Disparity
	Contrast ¹			Contrast ¹			
N	β	SE	N	β	SE	N	
Presence of a diversity expert (0 = n, 1 = y)	45	-2.66*	1.17	50	-1.81*	1.17	42
Governed by EEA (0 = n, 1 = y)	45	-2.02*	0.93	48	-1.17*	0.65	41
Federal Contractor (0 = n, 1 = y)	39	-16.53***	0.70	45	-16.69***	0.00	40
Inclusion of HRM in strategy development (0 = n, 1 = y)	45	-1.54**	0.94	50	-0.93	0.66	42
Use of Teams (0 = low, 1 = high)	43	0.11	0.13	49	0.03	0.11	41
International Scope (0 = n, 1 = y)	45	-0.34	0.73	49	-0.16	0.64	43
Number of Employees (0 = small, 1 = large)	45	0.21	0.72	50	0.28	0.61	43
Industry (1 = service, 0 = manufacturing)	45	-0.75	0.78	49	-1.07	0.69	43

¹The reference group is classical disparity.

* $p < .05$; ** $p < .01$; *** $p < .001$.

had a classical disparity, institutional, or configurational DEMS. The control variables of industry (service or manufacturing) and firm size were not significantly related to DEMS in the equation.

Hypothesis 1 predicted that coverage by the EEA or the Federal Contractors Program would be positively associated with institutional and configurational DEMS. Nominal regression findings indicated that both of these variables significantly differentiated institutional and configurational DEMS from classical disparity DEMS in the predicted direction, supporting H1 (see Table IV). Robustness analysis (Appendix 1) indicated that coverage by the EEA and the Federal Contractors Program were positive predictors of the probability of developing configurational DEMS but unrelated to the probability of developing institutional DEMS, indicating partial support for Hypothesis 1.

Hypothesis 2 predicted that coverage by the EEA or the Federal Contractors Program would be negatively associated with classical disparity DEMS. Nominal regression findings (Table IV) indicated that classical disparity DEMS were significantly negatively associated with coverage by the EEA and the Federal Contractors Program, supporting Hypothesis 2. Robustness analysis indicated that coverage by the EEA was a significant negative predictor of the probability of developing classical disparity DEMS, but that being a federal contractor was not significant in the equation.

Hypothesis 3a, which predicted that international scope would be positively associated with configurational DEMS, was not supported in either the main analysis using cluster indicators of DEMS

(Table IV) or in the robustness analysis using latent class probabilities. Hypothesis 3b, which predicted that utilization of team structures would be positively associated with configurational DEMS, was not supported in the main analysis using cluster indicators of DEMS (Table IV). However, use of team structures tended to be a positive predictor of the probability of configurational DEMS ($p < .10$) in the robustness analysis using latent class probabilities (Appendix 1). Hypothesis 3c, which predicted that presence of a diversity expert on staff would be positively associated with configurational DEMS, was supported in the main analysis using cluster indicators of DEMS (Table IV) as well as in the robustness analysis using latent class probabilities (Appendix 1). Hypothesis 3d, which predicted that inclusion of HRM in developing business strategy would be positively associated with configurational DEMS was supported in the main analysis using cluster indicators of DEMS (Table IV), but was unrelated to the probability that firms developed configurational DEMS in the robustness analysis (Appendix 1).

Outcomes of DEMS

Table V shows the results of regression analyses predicting the representation of EEA designated groups among employees and managers. Only regressions explaining a significant proportion of variance in the DV are shown. Hypothesis 4 predicted that compared to institutional and configurational DEMS, classical disparity DEMS would be associated with lower levels of employment of groups designated by the Canadian EEA.

TABLE V Regressions Predicting Employment Statistics from DEM System Clusters

Step	Dependent Variables											
	Managers with Disabilities Compared to Canadian Average			Employees with Disabilities Compared to Canadian Average			Employees with Disabilities Compared to Industry Average			Visible Minorities Compared to Industry Average		
	First β	Second β	Final β	First β	Second β	Final β	First β	Second β	Final β	First β	Second β	Final β
1. Industry ¹	.17	.20 [†]	.20 [†]	.12	.16	.16	.06	.10	.09	-.04	-.02	-.02
Firm Size	.17	.14	.14	.04	-.02	-.03	-.03	-.08	-.08	.21 [†]	.19	.19
Governed by EEA	.16	.11	.11	.20 [†]	.12	.12	.15	.08	.07	.21 [†]	.17	.17
2. Configurational DEMS ²		.27*	.29 [†]		.46***	.54***		.36**	.47**		.18	.28 [†]
3. Institutional DEMS ²			.02			.13			.16			.14
ΔR^2 step 1			.07			.05			.03			.10*
ΔR^2 step 2			.07*			.19***			.12**			.03
ΔR^2 step 3			.00			.01			.01			.01
Adjusted R^2			.08 [†]			.21***			.11*			.09*
N			81			81			80			80

[†] $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$.

¹Industry is coded as service = 1, manufacturing = 0.

²The classical disparity DEM system serves as the comparison category in the regressions.

Consistent with Hypothesis 4, firms with configurational DEMS employed more employees and managers with disabilities compared to the Canadian average, as well as more employees with disabilities compared to the average for their industry—findings that were also supported in the robustness analysis (Appendix 2). Also consistent with Hypothesis 4, firms with configurational DEMS employed more visible minorities than the average for their industry, but this finding was not replicated in the robustness analysis (Appendix 2).

Contrary to Hypothesis 4, the robustness analysis (Appendix 2) indicated that firms with a higher probability of developing institutional DEMS employed fewer employees and managers with disabilities compared to the Canadian average. The probability of developing institutional DEMS was also associated with employing fewer visible minority employees than both the Canadian average and the average for their industry. The probability that a firm developed classical disparity DEMS was unrelated to its employment statistics.

Hypothesis 5 predicted that compared to classical disparity and institutional DEMS, configurational DEMS would be associated with higher ROA (see Table VI). We found that firms with institutional DEMS performed less well than their configurational counterparts (the comparison category in the analyses) in both 2004 and 2005, consistent with Hypothesis 5's prediction. Firms with

configurational DEMS did not differ from classical disparity firms on ROA in either year, which is contrary to H5. Robustness analysis using each firm's latent class probability (Appendix 3) showed no significant relationship between DEMS and ROA, which is contrary to Hypothesis 5.

Discussion

A key finding of this research is that DEMS group into three clusters reflecting distinct systems that are consistent with the Canadian DEM context. We entitle these three systems classical disparity, institutional, and configurational DEMS. The continuing existence of classical disparity DEMS in a substantial number of firms is consistent with the fact that many Canadian firms are not covered by employment equity or other legal requirements for DEM staffing. The identification of two distinguishable systems beyond classical disparity DEMS is consistent with the historical development of Canadian employment equity and the business case for diversity. The Canadian EEA requires covered firms to monitor their staffing practices to ensure equitable employment of

The continuing existence of classical disparity DEMS in a substantial number of firms is consistent with the fact that many Canadian firms are not covered by employment equity or other legal requirements for DEM staffing.

TABLE VI Regressions Predicting ROA from DEM System Clusters

Predictor	ROA 2004		ROA 2005	
	Model 1	Model 2	Model 1	Model 2
Firm Size	.14	.15	.23 [†]	.18
Industry (1 = service, 0 = manufacturing)	.12	.11	.00	.02
Governed by EEA	.01	.01	-.34**	-.38**
Institutional DEM ¹	-.47**	-.45**	-.38**	-.47**
Classical Disparity DEM ¹		.04		-.20
Adjusted R ²	.20**	.19*	.23**	.24**
N	50	50	54	54

Notes: Number of firms is considerably reduced because many sampled firms are privately held with no financial performance data available. Standardized regression coefficients are depicted.

[†] $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$.

¹Comparison category is Configurational DEM.

members of the four designated groups (Labour Program, 2013b). In response to this mandate, an institutional DEMS was developed that focuses on staffing practices and statistics. The business case for diversity was developed after the EEA as the result of substantial institutional work on the part of DEM practitioners (Vican & Pernell-Gallagher, 2013). The business case for diversity adds a focus on marketing and decision-making effectiveness to the institutional focus on staffing practices and outcomes (Cox, 2001; Cox & Blake, 1991). Consistent with this more strategic view, configurational DEMS emerged that combine strategic with institutionalized DEM practices to cover the multiple facets of the business case for diversity. Both cluster analysis and latent class analysis validated the existence of these three distinctive types of DEMS in Canada. We indicated in our theory development that we are embracing this comprehensive view of the business case for diversity and include marketing, leadership, and decision-making effectiveness as theoretical mechanisms only. It would be of value for future studies to build on the results of the current study and include these mechanisms also as measured mediators.

The construct validity of the three DEMS was supported by meaningful associations with both antecedents and outcomes. Consistent with the Canadian legal and historical context, firms covered by the EEA or the Federal Contractors Program were less likely to develop classical disparity DEMS and more likely to develop institutional or configurational DEMS. Presence of a diversity expert on staff was positively associated with institutional DEMS, consistent with greater knowledge of the wide variety of DEM practices extant in the business environment. Presence of a diversity expert was also positively associated with configurational DEMS, consistent with greater knowledge of the

business case for diversity. Inclusion of HRM in business strategy discussions was positively associated with configurational DEMS, consistent with taking a strategic approach.

The robustness analysis indicated that the probability of developing a classical disparity DEMS was consistently negatively related to coverage by the EEA (but unrelated to federal contractor status when other predictors were controlled). Robustness analysis indicated that the probability of developing institutional DEMS was not predictable, perhaps because the negative distance from the configurational cluster offset the positive distance from the classical disparity cluster in this analysis. Robustness analysis also indicated that presence of a diversity expert, being a federal contractor, coverage by the EEA ($p < .10$), and use of team structures ($p < .10$) were positive predictors of the probability that firms developed configurational DEMS (inclusion of HRM in strategy discussions was unrelated when the other predictors were controlled). As such, robustness analysis replicated a conceptually meaningful pattern of findings for antecedents of DEMS that supported the construct validity of the research.

The different types of DEMS were also meaningfully associated with important outcomes for firms. Configurational DEMS was positively associated with the percentage of employees and managers with disabilities in both the main and the robustness analyses. Configurational DEMS was positively associated with the percentage of visible minority employees in the robustness analysis and showed a positive tendency ($p < .10$) in the main analysis. Configurational DEMS was positively associated with ROA in the main analysis, but unrelated to ROA in the robustness analysis. This pattern of findings supports the proposition based on SHRM theory that effectiveness results

from superior DEMS bundles, which show better vertical alignment with business strategy (Way & Johnson, 2005).

The superior bundling among DEM practices in configurational DEMS is evidenced by significantly higher levels of recruiting, training and development, and work-life flexibility in these firms compared to institutional DEMS. Proactive recruitment is essential to effective DEMS in order to broaden applicant feeder pools beyond candidates traditional for the organization (Newman & Lyon, 2009). Training and work-life flexibility are important to effective DEMS to avoid the well-known “revolving door” effect, where non-traditional candidates, once hired, receive insufficient support and development for meaningful career advancement (Robinson & Dechant, 1997). Configurational DEMS that involve more formalized effort toward recruiting, work-life flexibility, and training and development show effective bundling among essential DEM practices, with better employment statistics as a result.

The vertical alignment of configurational DEMS with business strategy is created by the fact that these systems explicitly link diversity to strategic effectiveness. Specifically, firms with configurational DEMS are more likely to include valuing diversity in the company’s mission or values statement, have a clear understanding of how diversity is linked to bottom-line performance, and to align diversity strategy with the business strategy.

Compared to configurational DEMS, institutional DEMS were negatively associated with ROA and unrelated to employment statistics in the main analysis. In the robustness analysis, institutional DEMS were unrelated to ROA and negatively related to the employment of employees with disabilities, managers with disabilities, and members of visible minority groups. The null to negative outcomes of institutional DEMS is consistent with the SHRM proposition that HRM practices that are neither well bundled to create a consistent set of actions nor vertically aligned with the business strategy are unlikely to be effective (Way & Johnson, 2005). The negative association of institutional DEMS with ROA may be due to the costliness of implementing practices that are not well linked to business needs compared with either configurational DEMS that link diversity to strategy or classical disparity DEMS that do not involve such costs. The negative association of institutional DEMS with employment statistics may be due to the comparison with configurational DEMS that are more effective at developing and retaining nontraditional hires with their superior bundle of practices.

The associations we observed between DEMS and their outcomes also imply the existence of complementarities or synergies between DEM practices, as hypothesized by SHRM theorizing about HR bundles (Subramony, 2009). Specifically, our findings on the impact of DEMS on outcome variables do not support a simple linear explanation whereby “more HR” is “better” for producing desirable outcomes (Kaufman & Miller, 2011). Rather, our findings indicate a nonlinear association between the number of DEM staffing practices and employment statistics where configurational but not institutional DEMS show a positive difference from classical disparity DEMS. Given that institutional DEMS involve substantially greater implementation of staffing-related DEM practices compared to classical disparity DEMS, the lack of impact on employment statistics indicates a nonlinear association between the number of DEM practices and employment statistics. Employment statistics increase only when configurational DEMS that include a strategic approach are added to the DEM staffing system. As such, these findings indicate a synergistic effect whereby DEM staffing practices are substantially more effective when combined with strategic DEM. In the robustness analysis, configurational DEMS also show a positive association with employment statistics while institutional DEMS show a significant negative association. Again, this pattern of findings is inconsistent with a simple linear explanation that more DEM practices lead to better DEM outcomes. Rather, it is consistent with the proposed synergistic effect of adding a strategic perspective to the staffing-related aspects of organizational DEMS.

Similarly, our results for the relationship between DEMS and ROA do not support a simple linear explanation linking more DEM practices to better outcomes (Kaufman & Miller, 2011). Rather, our results indicate that compared to configurational DEMS, classical disparity DEMS show a similar ROA while institutional DEMS show a poorer ROA. Hence, firms with the most DEM practices in place (configurational) are similar to firms with the fewest DEM practices (classical disparity), while firms with a moderate amount of DEM practices (institutional) show the poorest outcomes. This pattern of findings indicates that the strategic aspect of configurational DEMS creates a synergy with staffing-related DEM practices to improve firm performance beyond that associated with staffing-related DEMS alone.

The robustness analysis did not replicate this outcome, instead indicating that the configurational and institutional clusters are unrelated to ROA. We consider the findings from the

cluster analysis to be more useful for two reasons. First, cluster analysis is far more commonly used in the SHRM field (for recent examples, see Festing et al., 2013; Kang et al., 2012; Segers & Inceoglu, 2012; Stock & Genisyürek, 2012). As such, the findings from our cluster analysis are readily comparable to those of prior authors such as French (2001), who studied DEMS in Australian firms. We identify a set of firms that are similar to her classical disparity cluster, indicating commonality across samples and countries, which supports the construct validity of our research.

The second, and perhaps more important reason we consider the cluster analytic findings more useful is that the effects of the categorical variables derived from the cluster analysis are readily interpretable as independent variables in

By treating DEMS as bundles, we allow for the possibility that firms develop different combinations of DEM practices that create complementarities or synergies to minimize the level of management effort and costs needed to achieve DEM goals.

hypothesis-testing regressions. We conducted the latent class analysis as a validity check on the cluster analysis, and findings supported the three-cluster solution. However, the meaning of latent class probabilities as predictors in regression analysis is less clear, and we have seen no published prediction equations in the SHRM field that utilize latent class scores as independent variables to predict firm outcomes. The conceptual problem lies in the ambiguity created by moderate probability scores where a firm does not fall clearly into one of the classes. In our case, each firm receives three probability scores: the probability that the firm has a configurational, institutional, or classical disparity DEMS. When these three scores are summed, they add to 1.0 for each firm. A high probability score for any one of these classes indicates the firm is close

to that class and distant from the other two. A moderate score indicates that the firm is not so close to the class but does not indicate which of the other two classes is closer, creating conceptual ambiguity.

We tested prediction equations where two of the three latent class probabilities were entered simultaneously as independent variables, but the results of these analyses were uninterpretable. Examining the impact of one of these probabilities at a time generated more interpretable results, but in these equations, one class is being compared to both of the other classes simultaneously. As such, it is unclear which of the differences is driving the results. Because this analysis

does not indicate how each class differs uniquely from the other two, it seems to us to be less theoretically meaningful than the cluster analytic approach.

An interesting finding was the lack of association between classical disparity DEMS and employment statistics. French's (2001) term, "classical disparity," implies that without proactive DEMS, firms discriminate, either consciously or unconsciously, in inequitable ways that reduce opportunities for nontraditional groups. The finding that classical disparity DEMS was unrelated rather than negatively related to employment statistics appears inconsistent with this label. Possible explanations for this finding involve the size and industry of firms with classical disparity DEMS. Many of these firms are not governed by the EEA, indicating that they either had fewer than 100 employees or were not operating in covered industries. Smaller firms may be more open to hiring nontraditional job candidates because they are less able to offer competitive compensation packages that are comparable to those at larger firms. As such, they are less able to afford to restrict their applicant pool in any way (G. S. Becker, 1971). Firms in industries not covered by employment equity may also draw on somewhat different labor pools that are more diverse. As such, firms with classical disparity DEMS could show similar employment statistics to others while still showing a preference for traditional hires.

Contributions to Theory

By synthesizing thinking in the fields of SHRM and DEM, this article makes some important theoretical contributions. For the DEM field, this article deepens knowledge about the effectiveness of DEM practices by taking a systemic approach and conceptualizing DEM practices as bundles. As such, this article moves the DEM field beyond a linear conceptualization that simply adds different practices together. By treating DEMS as bundles, we allow for the possibility that firms develop different combinations of DEM practices that create complementarities or synergies to minimize the level of management effort and costs needed to achieve DEM goals (B. E. Becker & Gerhart, 1996). The identification of three distinct sets of DEMS is consistent with SHRM theorizing about bundles, which allows us to develop new theory regarding the antecedents and outcomes of DEMS.

This article demonstrates that the major propositions of SHRM theory apply to the DEM field and can predict the effectiveness of DEMS. Prior SHRM studies have demonstrated the validity of the propositions about bundles and vertical alignment for the traditional HR areas of recruitment,

staffing, compensation, and training. Our study contributes to theory by demonstrating the validity of these SHRM propositions in the DEM field, a new set of organizational processes that the SHRM field has not considered deeply before. Applying the SHRM proposition regarding the importance of vertical alignment with strategy, we argue that to be effective and to create value for firms, DEMS must include practices that link DEM with business strategy. Only if DEMS link diversity strategy to business strategy and articulate how diversity contributes to firm effectiveness will DEMS be able to contribute to firm financial performance. Applying the SHRM proposition regarding the importance of HR bundles, we argue that effective DEMS include practices that go beyond EEA requirements to cover the entire staffing process from recruitment to training and development to providing supports like work-life flexibility. Only DEMS that focus on development, retention, and career advancement will result in representative employment statistics in the longer term.

Our findings also contribute to recent developments in institutional theory. We contribute to the collection of research that investigates the role of agency in order to mobilize strategic responses to institutional pressures (Oliver, 1991, 1997). We further specify agency as institutional work (Lawrence & Suddaby, 2006; Lawrence et al., 2011), which highlights the importance of organizational decision makers in creating, maintaining, and shaping institutions.

Rather than resisting institutional pressures or adapting to pressures fully (Oliver 1991, 1997), we find support for managers going beyond institutional mandates to customize practices for fit with external as well as internal demands, which means balancing competitive and institutional pressures to gain competitive advantage (Boon et al., 2009). As such, we extend Oliver's (1991, 1997) work by offering a sixth strategic response that is different from mere acquiescence in that it combines institutional compliance with meeting strategic demands by developing unique DEM configurations with the potential to add value to the firm. This conceptual development demonstrates the value of combining SHRM theory with institutional agency. SHRM theory offers insights about how managers can configure structures that fit with institutional mandates while maximizing potential benefits. Specifically, SHRM theory points to the value of identifying ways to develop integrated bundles of mandated and nonmandated practices that can contribute to the firm's strategic aims (Delery & Doty, 1996; Way & Johnson, 2005). Recent theorizing on HRM implementation suggests that strategic advantage can be gained from

successful alignment of institutionally mandated practices because fitting the abstract concept of the practice to the firm's concrete situation is a nontrivial innovation that is difficult for competitors to copy (Gondo & Amis, 2013). As such, the SHRM perspective supports a sixth approach to institutional pressure of going beyond compliance to align institutionally mandated practices such that they enhance attainment of strategic goals.

Our study demonstrates that the SHRM principles of alignment between HRM bundles and firm strategy apply to the DEM field. Firms can develop DEMS that increase the employment of historically underrepresented groups in ways that enhance rather than detract from ROA. The case of DEMS as sets of institutionally mandated practices is particularly interesting because superficial compliance with EEA demands creates difficulties for firms. If representation of diverse groups is achieved but the firm's DEM practices are ineffective, then the firm is likely to experience the additional conflicts associated with diversity without the added benefits. A diversified workforce represents a costly asset that requires careful management, and as such, the DEM field is quite different from other examples of symbolic institutional compliance that are relatively easy to achieve and less costly. Furthermore, because prior research has shown mixed findings indicating how difficult it is to manage diversity effectively, the findings from this research represent compelling evidence of the value of applying SHRM theory to develop strong DEMS.

Our study offers some evidence for the importance of contextual conditions that can foster institutional work: an institutional context that provides guidance in the form of limited regulation but leaves sufficient room for customization and tailoring. Results suggest that basic regulations, which stimulate adoption of SHRM practices, plus flexibility in regulation, which permits tailoring, are associated with institutional agency. In the present study, this agency produces distinctive sets of DEMS. Intentionality and effort of agents in conducting institutional work (Lawrence et al., 2011) can explain why firms develop different types of DEMS even though they face similar institutional pressures and strategic imperatives.

Further, our findings echo the alignment arguments of SHRM. Researchers argue that distinctions should be made between practice adoption

Intentionality and effort of agents in conducting institutional work can explain why firms develop different types of DEMS even though they face similar institutional pressures and strategic imperatives.

and implementation (Gondo & Amis, 2013). To implement adopted practices, managers need to tailor the practices to fit the local context. Effective implementation may also require changing existing patterns of interactions and managerial practices to make the new practices work. Little theorizing, however, has been concerned with the performance consequences of these distinctions. The current study implies potentially detrimental effects of poor DEMS implementation on organizational performance and offers insights into the performance implications of alignment of practices.

Contributions to Practice

The findings reported in this article support practitioners' arguments that the field of DEM should take a strategic approach (Cox & Blake,

Institutional contexts

that are strong

enough to motivate

DEMS development

while leaving

room for tailored

approaches are

most likely to lead to

DEMS outcomes that

contribute positively

to firm performance.

1991). DEMS that include explicit articulation of the business case for DEM and how it contributes to firm effectiveness are more likely to be associated with diversified employment statistics and firm financial performance. The findings also demonstrate the value of including a diversity specialist on staff to develop an effective DEMS by ensuring that the organization can access knowledge regarding the business case for diversity and the wide variety of DEM practices extant in the business environment. The findings tentatively support the value of including HRM in developing strategy business for the development of a more effective configurational DEMS.

Strengths, Limitations, and Directions for Future Research

The design of this study gave it several strengths. Data were drawn from multiple sources, which enhanced the internal validity of the study. DEM practices and their predictors were obtained from survey responses, while employment statistics and financial performance numbers were obtained from publicly available sources. Hence, the demonstrated links between DEMS and their antecedents and outcomes are not threatened by common methods bias. The statistical conclusion validity of the study was strengthened by the use of robustness analysis to test the DEMS clusters. Standard cluster analysis provided findings that are readily comparable to related research (French, 2001) and appropriate to a small sample size (de Menezes & Wood, 2006). Latent class analysis

provided a significance test to validate the three distinct DEMS.

Another strength of this study was the construct validity of the measure of DEMS. Much prior research in the DEM field has focused on a single type of DEM practice, such as recruitment (Avery & McKay, 2006), selection interviews (Huffcutt & Roth, 1998), diversity climate (McKay et al., 2008), or diversity of teams (Joshi & Roh, 2009). This study updates prior studies assessing a broad set of DEM practices (Konrad & Linnehan, 1995), enhancing construct validity by covering the entire breadth of the DEM construct (Bacharach, 1989). As such, while the dichotomous assessment of some of the practices constitutes a limitation, this type of measurement is more appropriate for assessing organizational-level effects, such as firm-level employment statistics or firm financial performance.

While we are cautious in generalizing the results of this study to other countries, we can conclude from the present study that the national context is a critically important factor to consider when theorizing about DEMS. Research on policy learning, or the transfer of policy ideas from one setting to another, demonstrates the broader relevance of Canadian EEA as well. For instance, Canadian EEA was influenced by affirmative action in the United States; however, it was modified to reflect Canadian values and institutions, and renamed "employment equity" to reflect these differences (Agocs, 2014). Several other governments, including those of South Africa, Australia, New Zealand, and Northern Ireland, subsequently adopted the Canadian model for their own policy responses to inequality in employment. Thus, the Canadian model of employment equity has had international relevance, and evidence shows that the transfer of learning has gone in multiple directions (Agocs & Osborne, 2009). Further, we can state with some confidence that institutional contexts that are strong enough to motivate DEMS development while leaving room for tailored approaches are most likely to lead to DEMS outcomes that contribute positively to firm performance. Hence, the presence of institutional pressures alone is insufficient to explain what type of DEMS organizations will develop.

Another limitation of this study is small sample size. Data on DEM practices is difficult to collect because firms are reluctant to share information about this sensitive topic. We contacted each firm several times, by mail and by phone, in order to maximize response rate. The fact that our response rate was equal to the average for surveys asking much less sensitive questions about HRM practices (Datta et al., 2005) indicates the value of this data set. Also, for many of the firms in this sample, data

on the outcome variables were not publicly available, which reduced sample size for testing the relationship of DEMS to employment statistics and ROA. The multiple-source methodology allows us to have confidence in the internal validity of our hypothesis tests and the ability to draw useful inferences that contribute to knowledge.

Nonetheless, our small sample size limited the ability to control for more factors in the hypothesis-testing analyses. In particular, we examined the use of team-based structures as a predictor of DEMS, but did not include organizational age or other dimensions of high-performance work systems (HPWS), such as selectivity, training investments, performance-based compensation, and employee involvement (Datta et al., 2005; Huselid, 1995). Prior research has linked DEM practices to firm performance when HPWS is controlled (Armstrong et al., 2010), and future research examining the links between DEMS and HPWS would be useful. HPWS could be a predictor of configurational DEMS in diverse organizations because employees are required to work in teams and are empowered to solve business problems. As such, future research could examine both the extent to which HPWS and configurational

DEMS coexist in firms and whether this combination is related to performance (Yang & Konrad, 2011). Examining other measures of performance including market performance and employee support and well-being would enhance this research agenda. Also, the current study has not taken time, change, and processes into consideration. Future studies could examine how DEMS are developed and changed over time, which may lead to changes from one category to another. Additionally, researchers could investigate the processes through which managers tailor DEMS to fit in their organizational situations.

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APPENDIX 1 Regressions Predicting Latent Class Probabilities for DEM Systems¹

Predictor	Configurational	Institutional	Classical Disparity
Diversity Specialist	.25**	-.17	-.11
Governed by EEA	.15 [†]	.13	-.30**
Federal Contractor	.24**	-.14	-.12
HR Participates in Strategy	.08	-.08	-.01
International Scope	.09	.05	-.02
Use of Teams	.16 [†]	-.10	-.08
Firm Size	.08	.05	-.14
Industry (1 = service, 0 = manufacturing)	-.07	.10	-.02
Adjusted R ²	.34***	.02	.20***

Notes: Number of firms = 110. Standardized regression coefficients are depicted.

[†] $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$.

¹The dependent variables in these regressions consist of the probability that each firm is part of the configuration, institutional, or classical disparity clusters generated by latent class analysis.

APPENDIX 2 Regressions Predicting Employment Statistics from Latent Class Probabilities for DEM Systems

Predictor	EEs with Disabilities— National Average		Mgrs with Disabilities— National Average		Visible Minority EEs—National Average	Visible Minority EEs—Industry Average
	Model 1	Model 2	Model 1	Model 2	Model 2	Model 2
Industry (1 = service, 0 = manufacturing)	.12	.11	.16	.16	.13	-.10
Firm Size	-.04	-.00	.04	.06	.09	.06
Governed by EEA	.15	.26*	.14	.22 [†]	.12	.25*
Configurational DEM ¹	.35**		.24*			
Institutional DEM ¹		-.33**		-.24*	-.23*	-.21 [†]
Classical Disparity DEM ¹						
Adjusted R ²	.12**	.11**	.07*	.07*	.08*	.07 [†]
N	81	81	81	81	81	80

Notes: Model 1 tests the impact of the probability that a firm is in the configurational DEM latent class; Model 2 tests the impact of the probability that a firm is in the institutional DEM latent class. Only models explaining a significant proportion of variance in the DV are shown. Standardized regression coefficients are depicted.

EEs = employees; Mgrs = managers.

[†] $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$.

¹The independent variables of interest in these regressions consist of the probability that each firm is part of the configuration, institutional, or classical disparity clusters generated by latent class analysis.

APPENDIX 3 Regressions Predicting ROA from Latent Class Probabilities for DEM Systems

Predictor	ROA 2004			ROA 2005		
	Model 1	2	3	Model 1	2	3
Firm Size	.18	.15	.17	.25 [†]	.24 [†]	.22
Industry (1 = service, 0 = manufacturing)	.16	.17	.14	-.01	.01	-.01
Governed by EEA	.08	-.04	.07	-.27 [†]	-.33*	-.34*
Configurational DEM ¹	-.21			-.19		
Institutional DEM ¹		-.07			.13	
Classical Disparity DEM ¹			.26 [†]			.05
Adjusted R ²	.00	.00	.03	.10 [†]	.09 [†]	.07
N	50	50	50	54	54	54

Notes: Standardized regression coefficients are depicted.

[†] $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$.

¹The independent variables of interest in these regressions consist of the probability that each firm is part of the configuration, institutional, or classical disparity clusters generated by latent class analysis.