Organizational culture, HRM and firm performance: Examining relationships using the competing values framework in call centres.

By

Wendy R. Carroll

Saint Mary's University

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Approved: Terry H. Wagar, PhD
                   Supervisor

Approved: Monica Belcourt, PhD.
                   External Examiner

Approved: Elizabeth Kelley, PhD
                   Reader

Approved: Kevin Kelloway, PhD
                   Reader

Approved: Kent Rondeau, PhD
                   Reader

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Abstract

Organizational culture, HRM and firm performance: Examining relationships using the competing values framework in call centres.

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The role of organizational culture in strategic human resource management (SHRM) research was examined in call centres in Canada. Two concurrent studies were conducted using the business unit level of analysis with multiple-level respondents. Study 1 involved a sample of manager respondents from National call centres across Canada and Study 2 included two field studies involving both customer service representatives (CSR) and managerial employees as respondents. Both studies supported past arguments that organizational culture is an important consideration in SHRM research. The conventional aspects of the SHRM relationship model, such as HR horizontal alignment and the relationship between HRM and firm performance, were tested in both studies and the findings were consistent with past research, demonstrating the validity of the measures. Cameron and Quinn's (2006) Competing Values Framework (CVF) was used to assess organizational culture. This framework defines four culture types which are referred to as clan (i.e., social), adhocracy (i.e., entrepreneurial), market (i.e., competitive) and hierarchy (i.e., bureaucratic). The results from the studies showed that two culture types, clan and adhocracy, were positively associated with firm performance, and two, market and hierarchy, were negatively associated with firm performance. In addition, both the clan and market culture types were found to partially mediate the relationship between HRM and employee performance in both studies, and HRM and operational performance in Study 1. Further analysis of intermediate linkages showed that HRM, employee performance and operational performance were all significantly and positively associated with financial performance. In addition, organizational culture types were found to have both direct and indirect associations with financial performance. Whereas adhocracy and hierarchy cultures were significantly associated with financial performance in Study 1, clan and market were not significant with financial performance for either study. These findings suggest that culture is directly associated with financial performance with two culture types and indirectly associated with financial performance by the association of clan and market cultures with employee performance and operational performance. Finally, to address past issues raised by researchers about SHRM research almost exclusively being conducted with managers, an examination of multiple-level respondents was undertaken in Study 2. The analysis showed no significant differences in CSR and manager perceptions about HRM and business strategy, with some differences in culture and firm performance perceptions.

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CHAPTER 1: INTRODUCTION

The management of people within organizations has become an increasingly important focus for researchers and practitioners alike over the past 20 years. In particular, senior leaders are becoming more aware of the important role that human resources play in the success of their organizations to achieve financial performance. For example, Google, rated the number one employer in the U.S. in 2007 by *Fortune Magazine* (Lashinsky, 2007), has developed an employee-centric environment focused on enhancing employee engagement and organizational commitment. While some of Google's human resource (HR) practices may seem too rich for some organizations, Google claims that it is part of its organizational culture to foster innovation and creativity, which lead to higher levels of employee performance and result in higher levels of operational and financial performance (Google's stock price went from $85 USD in 2005 to $483 in 2007). Yet while many organizations understand how critical it is to attract and retain employees for sustained competitive advantage leading to successful financial performance, others, despite adopting the same type of practices as their competitors, struggle to keep employees and achieve the financial outcomes desired.

During my 20 years in industry, I witnessed marked changes in the approaches taken by various organizations and the effects such changes had on employees, not all of which led to increased or improved financial performance. I specifically had an opportunity to work in and around call centres, an environment that has experienced dramatic change over the past 20 years, accelerated predominantly by advancements in technology. Call centre work transitioned during this time from employment that was

more autonomous with higher levels of employee discretion to more narrowly defined roles with higher levels of technological mediation. My experience as a leader in these environments revealed that migrating to operational or HR best practices did not always yield the best financial results. I observed that very often, a more rigid application of many of the HR and workforce design practices led to higher levels of employee turnover, lower levels of quality service and, ultimately, negative impacts on overall financial performance, if not influenced simultaneously by other factors embedded deeper in the organization, such as organizational culture.

These observations led me to investigate this apparent dichotomy further. Examining "human capital" in terms of sustained competitive advantage therefore became a central focus for the research questions I was most interested in studying. Understanding the complexities of an organization from a macro perspective, especially relating to the effectiveness of the investment of human resource management (HRM) on firm performance, provided a direction for more specific inquiry in this area. As a result, my research became focused on strategic human resource management (SHRM) as a way to better understand the relationship between HRM and firm performance.

SHRM provides an understanding of the relationships among HRM, business strategy and firm performance outcomes and the ways in which the management of human capital contributes to "a value-creating source" of sustained competitive advantage (Amit & Belcourt, 1999). It specifically helps to address my area of interest in three ways. First, research has shown that HRM affects firm performance and that this relationship is contingent on other factors, such as business strategy (Huselid, 1995). Second, previous SHRM research, which focused on call centres in the U.S. (Batt &

Moynihan, 2002), the U.K. (Wood, Holman, & Stride, 2006) and Canada (Van-Jaarsveld, Frost, & Walker, 2007) provides a baseline from which to direct current and future studies. Finally, SHRM scholars have recently called for a further examination of other external relationships to HRM and firm performance, such as organizational culture and workplace climate (Bowen & Ostroff, 2004).

As a result of these recent calls, my research examines the relationship of organizational culture with the conventional SHRM relationship model (HRM, business strategy and firm performance). More specifically, my research examines the relationship between HRM and firm performance outcomes and whether organizational culture mediates the relationship between HRM and firm performance. Researchers have argued that organizational culture is a important link in the SHRM relationship model that is critical to strategy implementation (Coolican & Jackson, 2002), employee attitudes (Belcourt, 2001) and to understanding firm performance (Dyer & Ericksen, 2005; Roberts & Hirsch, 2005). Hence, my research examines organizational culture as a mediator between the HR system of practices and firm performance using a sample of call centres in Canada.

The remainder of this chapter provides central definitions that guide the research, including its theoretical underpinnings, the rationale for and approach to the research, the contributions of this research to the field of SHRM, and an overview of the subsequent chapters.

Background

Central Definitions for SHRM Research

SHRM research has developed rapidly over the past 20 years and has received increased interest by academics and practitioners. At the most basic level, researchers generally agree that to produce competitive advantage and enhance firm performance requires the development of an HR system (Delery & Doty, 1996; Huselid, Jackson, & Schuler, 1997). However, with the developments in SHRM research that test relationships between HRM and firm performance have emerged a number of essential definitions that guide and direct the research. A discussion of these central definitions helps to frame SHRM approaches to build on the model in future research.

The HR system of practices was more specifically defined in a seminal work by Wright and McMahan (1992) that differentiated the various approaches taken by researchers, which are referred to as differences in micro and macro SHRM. In other words, approaches focused on individual HR practices are considered micro, whereas a focus on the interplay between and among HR practices is considered macro. Wright and McMahan (1992) described SHRM as "the pattern of planned and human resource deployments and activities intended to enable an organization to achieve its goals" (p. 298). This definition provides the backdrop for establishing the key variables for SHRM research that are theoretically concerned with the relationship between HR practices and firm performance.

Accordingly, the system of HR practices is central to SHRM research and has been examined through the use of high performance work practices (HPWP) (Colbert, 2004). It has long been asserted by SHRM researchers that the system of HR practices

explains more of the relationship with firm performance than individual practices alone (Huselid, 1995). However, fundamental to examining the system of HR practices is the approach researchers take to developing HPWP measures. Frequently HPWP measures are developed from either a five dimension model focused on choices of HR practices including planning, staffing, appraising, compensating and training (Schuler, Galante, & Jackson, 1987) or a seven HR principles model that places more emphasis on the nature of HRM relating to autonomy, discretion, empowerment and participation (Pfeffer, 1998). The distinction between these two approaches will be discussed further in Chapter 2. Researchers are most often more influenced by the latter approach when developing HPWP measures because it emphasizes the ways in which firms develop knowledge, skills and ability (KSAs) and empower and motivate employees (Combs, Liu, Hall, & Ketchen, 2006).

Research on HPWPs has led to three modes of theorizing, which have been identified as best practice, contingency and configurational (Delery & Doty, 1996). Each perspective varies with respect to primary approaches and outcomes. Colbert (2004) stated that "the main differentiating characteristics across these categories is the level of system complexity assumed by the researcher and the capacity of various research approaches for modeling system complexity" (p. 344). Whereas the best practice approach (or universal perspective) aims to examine individual practices to develop the best set of HR practices, contingency perspectives focus more on interaction effects, such as the relationship between HR and business strategy (external alignment), while configurational perspectives examine system interactions such as the horizontal alignment (internal consistency) of the HR system. Although researchers may not

specifically identify which approach they are using, one or several may be employed in any given study.

Finally, firm performance outcomes have been defined in various ways in the SHRM literature. Although many studies use the term "firm performance" broadly, it represents more of an umbrella heading for the subcategories of performance outcomes that are studied. For example, Way and Johnson (2005) observed that performance outcome measures span HR (employee satisfaction, employee withdrawal, workforce), operational (productivity, quality, service), financial (profitability, ROI, sales growth) and capital market (stock value, shareholder return) outcomes. Empirical work to date has focused either on one of these firm performance areas, such as HR (Batt, Colvin, & Keefe, 2002) or operational (Youndt & Snell, 2004), or on multiple areas (Guthrie, 2001; Hoque, 1999; Huselid, 1995; Huselid et al., 1997). Way and Johnson (2005), in their review of firm performance, stated that the use of more multidimensional measures of firm performance would strengthen future empirical studies. Such an approach provides a more holistic view of firm performance by examining not just financial performance but also employee and operational outcomes. In addition, researchers may use either objective or subjective measures, or both, to gather information. Although it is often difficult to obtain objective measures about firms due to cost, access and availability of information, researchers have debated whether objective measures are better than subjective perceptual measures (Becker & Gerhart, 1996; Gerhart, Wright, McMahan, & Snell, 2000). However, recent research has shown that subjective measures of firm performance are strongly associated with objective measures, strengthening their use in SHRM research (Wall et al., 2004).

SHRM Theoretical Underpinnings

A review of the literature shows that SHRM researchers predominantly use the resource-based view (RBV) of the firm as a theoretical underpinning (Wright, Dunford, & Snell, 2001). RBV's popularization and acceptance in both strategy and SHRM literature came from its internal focus on characteristics such as physical, organizational and human capital and their effects on firm performance (Barney, 1991). Specifically, RBV's emphasis on human capital suggests that firms may attain sustained competitive advantage through human resources, which, in turn, may increase firm performance through the effectiveness of human resource management (HRM). As noted by Boxall (1996), "By hiring and developing talented staff and synergizing their contributions within the resource bundle of the firm, HRM may lay the basis for sustained competitive advantage" (p. 66). In other words, a firm's ability to stabilize relationships with employees enhances its ability to increase firm performance and survive in the future. This stabilizing of employee relationships leads to competitive advantage and is developed through the effective management of human capital. However, the management of human capital is thought to be influenced by a firm's unique social context, such as organizational culture, and, therefore, not easily imitated.

RBV's broader purpose in SHRM research is twofold. First, it highlights the importance of human resources within the firm from both a practice and a research perspective (Colbert, 2004). Second, it provides the groundwork to consider the HR bundle or system of practices rather than focusing on individual practices in isolation. In sum, SHRM researchers note that RBV provides an "accessible theoretical bridge" between strategy and HRM (Wright, Dunford et al., 2001) and an important backdrop for

presenting SHRM research from the contingency and configurational perspectives (Delery & Doty, 1996).

Gaps in the Literature - The "Black Box"

Examining the "strategic logic" between HRM and firm performance has been highlighted as an important theoretical challenge in SHRM research (Becker & Huselid, 2006). More directly, this call has focused attention on developing an understanding of other mediators and moderators in the SHRM relationship model apart from business strategy. In a review, Becker and Huselid (2006) referred to these relationships as the "black box", placing an emphasis on mediators and intermediate outcomes and their relationships to HRM and firm performance. Emerging literature has now begun to explore some of these relationships, for example, the focus on intermediate linkages in areas such as voluntary turnover (Batt et al., 2002; Guthrie, 2001; Shaw, Delery, Jenkins, & Gupta, 1998). However, to examine the question relating to strategy implementation and mediating relationships more directly (Becker & Huselid, 2006), researchers have focused attention on social context and complexity, which link to areas such as organizational culture and climate (Ferris, Arthur, Berkson, Kaplan, & et al., 1998).

Conceptual and empirical studies about workplace climate have been more prevalent over the past five years than work examining organizational culture. More specifically, empirical research contributions to date have focused predominantly on workplace climate (Bowen & Ostroff, 2004; Gelade & Ivery, 2003; Rogg, Schmidt, Shull, & Schmitt, 2001; Rondeau & Wagar, 2001) and, to a lesser extent, on organizational culture (Chew & Basu, 2005; Ferris et al., 1998; Papalexandris & Panayotopoulou, 2004). Although both workplace climate and organizational culture are

underpinnings of social complexity, organizational culture has been linked more directly with strategy implementation (Barney, 1986) and impacting firm performance (Denison, 1984; Fisher, 2000). For example, recent theories suggest that organizational culture provides the essential framework from which business strategy is operationalized (Sadri & Lees, 2001). The significance of the role of organizational culture in this relationship has been recognized among SHRM researchers, and there have been calls for more empirical investigations of organizational culture in the SHRM relationship model (Dyer & Ericksen, 2005; Roberts & Hirsch, 2005; Roehling et al., 2005). However, empirical studies exploring the role of organizational culture in SHRM literature are sparse.

<p align="center">Research Overview</p>

My research is designed to address current theoretical and empirical issues in the field of SHRM and is aimed at providing a further understanding of the relationships among organizational culture, HRM and firm performance. Specifically, the research is designed to examine whether organizational culture mediates the relationship between HRM and firm performance. Although some work has conceptualized about the relationship of organizational culture with HRM and firm performance, only two empirical studies have focused specifically on culture (Chew & Basu, 2005; Papalexandris & Panayotopoulou, 2004), and none have employed Cameron and Quinn's (2006) competing values framework using the organizational cultural assessment instrument (OCAI).

Two concurrent quantitative studies are conducted at different levels of analysis to examine the relationship of organizational culture in SHRM in my research. Study 1 provided a business unit level of analysis and is conducted with call centres in Canada.

The resource-based view (RBV) of the firm is used with the competing values framework to test organizational culture as a mediator between HRM and firm performance outcomes. Study 2 includes two field studies with separate call centre sites using individual-level data. As with Study 1, an examination of the relationship with organizational culture is tested. In addition, an examination of the differences between manager and employee perceptions of HRM, culture, business strategy and firm performance is examined.

Call centres in Canada are used in this research for a variety of reasons. Most notably, call centres represent a growing sector of employment which stretches over a wide variety of industries. For example, within the Canadian landscape call centres contribute over $36 billion of Gross Domestic Product (GDP) each year to the economy and employ over four percent of the workforce (Contact Centre Canada, 2008). From a theoretical perspective, the call centre model also provides an environment that captures central elements of RBV social complexity, such as interpersonal relationships among managers, an organization's reputation and culture. Methodologically, call centres also offer a rich environment in which to examine HRM and firm performance at the business unit level of analysis, due to the structure and design of the operations. Finally, access to national and single site locations was possible due to my previous relationships built within the call centre community in North America.

Finally, my research builds on SHRM theory in two ways. First, it draws on Cameron and Quinn's (2006) organizational culture theoretical framework to examine the relationship of culture between HRM and firm performance. Second, it examines

differences in perceptions about HR, culture, business strategy and firm performance from both a manager and employee perspective.

Organization of this Dissertation

The SHRM theoretical framework is developed by my research by interplaying RBV and the competing values framework and using configurational and contingency modes of theorizing to empirically test the relationship among organizational culture, HRM, business strategy and firm performance. Chapter 2 provides a review of the SHRM literature central to this dissertation, Chapter 3 develops the theoretical and methodological framework and outlines the research design, Chapter 4 reports the results from a study conducted nationally with call centres in Canada, Chapter 5 describes the findings from two field studies conducted in call centres in Canada, and Chapter 6 provides a discussion of the results from this research and highlights conclusions, limitations and future research directions.

CHAPTER 2: LITERATURE REVIEW

Although initial attention to SHRM was viewed by some researchers and practitioners as serving to position and legitimize human resource management (HRM) as essential within organizational contexts, progress in the field has shown both the strategic importance of human resources and the critical role of HRM on firm performance outcomes (Galford, Broedling, Lawler, & Riley, 1998). Today, SHRM researchers generally agree that producing competitive advantage and enhancing firm performance require the development of an HR system (Delery & Doty, 1996; Huselid et al., 1997). The developments in SHRM research have served to strengthen it both theoretically (Boxall, 1996; Wright, Dunford et al., 2001) and methodologically (Wall et al., 2004; Wall & Wood, 2005; Wright, Gardner, Moynihan, Park, & al., 2001), providing a sound foundation on which to build future work.

Recently, SHRM researchers have signaled a need to move beyond the current examination of the linkages among business strategy, HRM and firm performance to explore more complex relationships (Becker & Huselid, 2006; Bowen & Ostroff, 2004; Roehling et al., 2005; Wright & Boswell, 2002). This new direction has in turn prompted a more substantive focus on the black box between HRM and firm performance, drawing researchers' attention from questions relating to "Does HRM affect firm performance?" to those concerning "How does HRM contribute to firm performance?" This literature review provides a background of the essential foundational developments in SHRM research that guide the field. Next, an examination of SHRM research conducted using call centres is discussed. Finally, through an analysis of the literature relating to SHRM

relationships, I develop the rationale for examining organizational culture as an important mediating relationship in the SHRM model.

Background

Developments in SHRM Research

Interest by academics and practitioners over the past 20 years has served to strengthen the concentration of research in the area of SHRM. This attention by both groups has contributed to the development of foundational theoretical and methodological approaches in SHRM research. However, researchers examining SHRM relationships must first make a number of definitional and methodological decisions based on earlier developments in order to continue to build the research in the field (Osterman, 2000).

SHRM researchers seeking to examine the relationship between HR practices and firm performance must first decide which HR measurement scales to use. A review of the literature reveals that most researchers predominantly use Schuler and Jackson (1987) and Pfeffer (1998) for guidance in measuring HR practices. Delineation has emerged between these two approaches (see Appendix A) that focus those researchers inclined to be guided by Jackson's five areas as practice oriented (i.e., Michie & Sheehan, 2005) and those guided by Pfeffer's (1998) seven areas as principle oriented (i.e., Gelade & Ivery, 2003; Hoque, 1999).

This distinction between HR practice and principle (Wright & Gardner, 2003) is integral to researchers' decisions about modes of theorizing in SHRM research (Colbert, 2004). For example, studies focused on understanding HPWPs have emphasized a stronger relationship of firm performance with practices such as employee involvement

or skills-based pay (Lawler, 1999; Ledford & Lawler, 1994) and self-directed work teams (Osterman, 2000), all of which align more closely with Pfeffer's principles (1998). Other studies in unionized environments have shown a positive association between firm performance and HPWPs when work teams are more self-directed (Colvin, Batt, & Katz, 2001). Studies trying to estimate the effect of HPWP on firm performance have been criticized for either relying on a small sample or a one industry study. For example, Huselid (1995) estimated that a one-standard-deviation increase in HPWP is associated with reducing turnover by 7.5%. More recently, Collins and Smith (2006) estimated that a one-standard-deviation increase in HR practices that are commitment-based increased both sales results (by 16.9%) and service performance (by 18.8%). Although Godard (2004), in his study of unionized workplaces, suggested that adapting high performance work practices may be in the interest of only a few employers, Combs et al. (2006), based on a meta-analysis of 92 HPWP studies in the manufacturing industry, "estimate that organizations can increase their performance by .20 of a standardized unit for each unit increase in HPWP use" (p. 524). Their findings showed support for past arguments that the increase in HPWPs increases firm performance and therefore may be prudent for organizations to adopt HPWPs. However, SHRM researchers have long asserted that it is the system of HR practices that explains more about firm performance than individual practices alone (Huselid, 1995).

Three modes of theorizing about the system of HR practices have emerged. First, researchers examining the effects of individual practices to develop a suite of best practices use a universalistic approach. This perspective is highly concerned with linear relationships between independent and dependent variables and focuses on identifying

HR practices that provide higher firm performance. In other words, researchers using a universalistic approach examine individual practices and isolate only those practices that increase firm performance to develop a suite of best practices.

Second, a configurational approach to examining the effect of the system of HR practices considers both the internal consistency of the HR system of practices and the effect of the bundle of those practices. Huselid (1995) tested the internal fit of consistency or horizontal alignment of HR practices and found that the system of HR practices helped to explain more of the effects on firm performance outcomes than individual practices alone. This result has been further supported in subsequent studies (Delaney & Huselid, 1996; Hoque, 1999; Michie & Sheehan, 2005).

Third, researchers have also been concerned with understanding the effects of external fit or vertical alignment with the HR system of practices, which is referred to as the contingency approach. This approach moves toward understanding how patterns of multiple independent variables relate to dependent variables (Colbert, 2004). More specifically, researchers have focused on the linkage with business strategy (Devanna, Fombrun, Tichy, & Warren, 1982; Tichy, Fombrun, & Devanna, 1982), which has found that organizations with a more quality and innovative business strategy and higher HRM investment have higher firm performance outcomes (Delaney & Huselid, 1996; Guthrie, Spell, & Nyamori, 2002; Hoque, 1999; Michie & Sheehan, 2005).

Defining HR practices and establishing an approach to theorizing about SHRM are central decisions for researchers. A review of the literature shows that researchers most notably establish a principle approach to measures as it relates to HR practices. According to Colbert (2004), this approach is most appropriate, especially when

considering the effects of the HR system of practices. Although researchers infrequently state which mode of theorizing they are using, there has been a relatively consistent application of the universalistic, contingency and configurational approaches. Huselid's (1995) study advanced the research from conceptualizations about these approaches to operationalizing them. Empirical studies that followed from a universalistic and configuration approach established horizontal alignment or internal fit of the HR system (Delaney & Huselid, 1996; Huselid, 1995; Huselid et al., 1997; Youndt & Snell, 2004) and, from a contingency perspective, vertical alignment or external fit when examining HRM and firm performance as contingent on business strategy (Guthrie et al., 2002; Hoque, 1999; Horgan & Muhlau, 2003).

SHRM in Call Centres

Call centres are interesting environments to draw out critical insights about SHRM because they exist in a multitude of industries. For many organizations, call centres have become an integral part of the business, focused on driving and sustaining growth (Gans, Koole, & Mandelbaum, 2003). Call centre environments differ in *application, nature,* and *type*. The *application* of the call centre is determined by the direction of the call. Call centre services that take calls in to employees are referred to as inbound, while call centres that make calls out are referred to as outbound. The *nature* of call centre services can vary based on the type of work performed. For example, call centres may do customer service, sales, and/or IT technical support work. Finally, there are two major *types* of call centres. First, a company that operates its own call centre operation is referred to as an in-house call centre regardless of industry, *nature* (such as customer service, technical help or sales) or *application* (whether calls are made out to

customers or calls come in to employees). Second, a company that operates call centre operations on behalf of another company is referred to as an outsourcer. Outsourcers set up complete call centre operations with staff to handle the other company's customers. Outsourcers develop call centre models to represent and service clients from a wide variety of industries, performing various services and applications of work.

The rapid development in technology over the past 20 years has significantly changed the nature of work in call centres (Bain, Bunzel, Mulvey, Hyman, & Taylor, 2000; Bain, Watson, Mulvey, Taylor, & Gall, 2002; Batt, 1999). For example, employees working in call centre environments 20 years ago or more had limited technologically mediated control mechanisms, such as electronic performance monitoring, and were involved in more complex and varied interactions (Anton, 2000; Batt & Moynihan, 2002). However, today's environment is heavily designed and managed through technologically mediated control mechanisms. In contrast to the earlier call centre model, employees now have numerous key indicators that measure their performance to the second and systems that record both their voice and electronic navigation while they are talking to a customer. This environment has led to discussions in the academic literature relating to management of employees that range from call centres as modern day "sweat shops" with a "panoptic" form of management (Bain & Taylor, 2000, 2004; Bain et al., 2002; Ellis & Taylor, 2006) to the overall affects of HR practices on firm performance outcomes (Batt, 2002; Deery & Kinnie, 2002; Holman, 2003a, 2003b; Stanton & Barnes-Farrell, 1996).

Batt and Moynihan (2002) found that call centres may use mass, professional or hybrid mass-customization models, which influence an organization's approach to HR

and operations. The mass model is a call centre characterized by maximizing volume and minimizing costs, while the professional model focuses on quality service and products delivered by top talent. A hybrid mass-customized model incorporates the efficiency aspects of the cost model with the quality focus of the professional model. From an HR perspective, the adoption and integration of technological advancements within the call centre environment have enabled organizations to develop processes for performance management, create succinct job analysis and design, incorporate dynamic training modules and establish targeted recruitment practices. From an operational perspective, this adoption has allowed for the integration of such practices as industrial engineering and mass production principles to simplify the service delivery process and streamline work to create more routine job designs (Batt, 2002; Ellis & Taylor, 2006). Whereas mass models are more inclined to use technology to minimize costs, professional models emphasize the ways in which technology can complement the work environment.

Although the advantages of the call centre service delivery model are perceived to be most obvious from a financial performance perspective, there are mixed results from an employee perspective (Glucksmann, 2005; Houlihan, 2000). Research has indicated that human resource practices (Batt et al., 2002), management control mechanisms (Batt, 1999; Holman, 2002b, 2003a), job design strategies (Batt, 1999) and performance monitoring (Aiello & Kolb, 1995; Stanton, 2000b; Stanton & Barnes-Farrell, 1996) have varying effects on overall performance outcomes. For example, studies about HR practices relating to electronic performance monitoring of employees have shown that the intensity and frequency of administering such practices have a negative impact on employee performance outcomes relating to stress and turnover (Aiello & Kolb, 1995;

Bain & Taylor, 2000; Holman, 2002a; Stanton, 2000a, 2000b; Stanton & Barnes-Farrell, 1996). Further, simplistic and repetitive job designs in call centres result in loss of personal control and also have contributed to such negative employee outcomes as lower levels of job satisfaction and high levels of employee turnover (Batt, Doellgast, & Kwon, 2005).

Call centre studies examining micro HR issues, as discussed previously, are more plentiful than macro SHRM studies. There are two studies that specifically focused on macro SHRM and intermediate linkages. A study of U.S. call centres in telecommunications found that employee voice was an intermediate linkage between HR practices and employee quit rates (Batt et al., 2002). Another study, examining U.K. call centres, found no direct links among HR, strategy and operational performance but did reveal that work design was related to operational performance (Wood et al., 2006). Although both of these studies have examined linkages between HRM and firm performance, the findings relating to HR's effect on firm performance have varied. Further, no studies in this area have attempted to move beyond the conventional SHRM relationship model to examine other linkages, such as organizational culture.

<div align="center">Gaps and Future Research</div>

Intermediate Linkages and the Black Box

Researchers have called for more studies examining intermediate linkages between HR and the various components of firm performance (Bowen & Ostroff, 2004; Ferris et al., 1998). To date, this research has focused on intermediate linkages, such as turnover and productivity (i.e., Batt et al., 2002; Huselid, 1995; Shaw, Gupta, & Delery, 2005), work design (Wood et al., 2006), labour flexibility (Michie & Sheehan, 2005) and

climate (Collins & Smith, 2006; Neal, West, & Patterson, 2005; Rogg et al., 2001;
Rondeau & Wagar, 2001). Shaw et al. (1998) found that the HR relationship with
operational performance, specifically productivity measures, had a negative effect on
employee outcomes, such as voluntary turnover, and mediated the relationship with
financial performance. Further, Guthrie (2001) found that organizations with higher
investments in HPWPs had higher levels of employee retention, resulting in higher levels
of productivity. Although approaches to examining the intermediate linkages have varied,
firm performance outcomes have been more focused on the relationship among
employee, operational and financial performance. In general, these studies have shown
that a "chain" of linkages affects financial performance either directly or indirectly
(Collins & Smith, 2006; Guthrie, 2001; Shaw et al., 1998).

SHRM researchers have also signaled a need to examine other contextual realities
of organizations as linkages in SHRM research (aside from business strategy), such as
organizational culture (Roehling et al., 2005). Organizational culture has been
recognized by researchers as playing a critical role in both business strategy
implementation (Coolican & Jackson, 2002) and human capital relations (Belcourt,
2001). For example, strategy researchers have indicated that organizational culture affects
strategy implementation and is a source of sustainable competitive advantage (Barney,
1986). Further, HRM researchers have shown that the perceptions of organizational
culture influence employees' intentions to stay with an organization (Sheridan, 1992).
Therefore, examining the effects of organizational culture provides a bridge between the
effectiveness of strategy implementation and the importance of HRM on outcomes
relating to human capital.

This gap in the literature has been acknowledged by several conceptual works emphasizing the centrality of organizational culture and climate as linkages (Bowen & Ostroff, 2004). Although these articles have provided theoretical frameworks to further examine such linkages, few have provided empirical evidence to support the models. The sparseness of studies is most likely due to the challenging nature of conducting them because of the difficulty in accessing organizations to gather such information. However, if our understanding of "how HRM contributes to firm performance" (Bowen & Ostroff, 2004, p. 203) is to be advanced, research studies of this type must be conducted.

Organizational Culture as a Relationship in SHRM

Recent reviews of the relationship of organizational culture to SHRM suggest that culture plays a significant role in strategy implementation for sustaining competitive advantage and contributing to firm performance (Dyer & Ericksen, 2005; Roberts & Hirsch, 2005; Roehling et al., 2005). When examining social complexity and context, researchers predominantly discuss workplace climate and organizational culture. The distinguishable differences between climate and culture were initially discerned by the application of qualitative approaches for culture and quantitative for climate (Denison, 1996). However, after a review of the literature, Denison (1996) argued that the difference between the two was more than methodological and that both organizational culture and workplace climate literature address the creation and influence of social contexts within organizational settings. Denison differentiates between the two as follows.

Climate refers to a situation and its link to thoughts, feelings, and behaviors of organizational members. Thus, it is temporal, subjective, and often subject to direct manipulation by people with power and influence. Culture, in contrast, refers to an evolved context (within which a situation may be embedded). Thus, it is rooted in history, collectively held, and sufficiently complex to resist many attempts at direct manipulation. (1996, p. 644)

This distinction draws a link to culture as central to social complexity through the inability of managers to manipulate the outcome, as can be done with climate. Although a focus on organizational climate is said to be useful to help management target an area to make improvements, climate has been criticized for zoning in on a specific "slice" of the organization and presupposing other "higher level and broader knowledge" of an organization (Gillespie, Denison, Haaland, Smerek, & Neale, p. 5). Conversely, quantitative approaches to organizational culture attempt to examine a much broader set of organizational characteristics that shed light on an organization's shared basic assumptions and values.

Organizational climate has received more research attention in the SHRM literature than culture, although with mixed results (Bowen & Ostroff, 2004). This focus may be driven by the availability of well-established measures developed to gather quantitative information relating to climate within an organizational setting. Studies examining workplace climate have shown that simply introducing HRM in the absence of a supportive climate does not yield optimal firm performance (Rondeau & Wagar, 2001). For example, Rondeau and Wagar's (2001) study of nursing home health care workers

found support for climate mediating the relationship between HR and firm performance. Several other studies have also found that workplace climate partially mediates the relationship between HRM and aspects of firm performance (Gelade & Ivery, 2003; Rogg et al., 2001), while one study found a moderating relationship of climate with firm performance for organizations with a differentiation-type business strategy (Neal et al., 2005). Although Gelade et al. (2003) and Rogg et al. (2001) do not specifically address whether they consider climate as an internal or external fit, Neal et al. (2005) state that climate was tested for an internal fit with HR. Finally, a study of IT companies revealed an intermediate relationship in which HR investment with high commitment practices was positively related to higher levels of organizational climate, which, in turn, increased financial performance (Collins & Smith, 2006).

A search of the literature reveals only two empirical studies examining organizational culture from an SHRM perspective. The first study was a micro SHRM analysis examining the relationship between organizational culture and HR practices. An international study was conducted using Hofestede's model to examine each participating country's cultural characteristics at a national level. The findings from this study showed support for a stronger relationship between HR and internal communication practices and a weaker association with rewards (Papalexandris & Panayotopoulou, 2004). A second study of companies in Asia used a contingency approach to examine the effect of culture and HR on firm performance. A content analysis of public documents was carried out to assess cultural values for each organization. The findings suggested that organizations with "elite" or "leader" value profiles with a complementary HR system achieved higher financial performance (Chew & Basu, 2005). Although both studies had a number of

limitations, both also provided preliminary empirical support for examining

organizational culture as an important factor in SHRM research.

The Competing Values Framework

The most prevalent and cited quantitative approaches to culture in organizational

studies are Hofstede's (1983) GLOBE dimensions model, Kets de Vrie's five

dysfunctional types model (DeVries & Miller, 1986) and Cameron and Quinn's (2006)

competing values framework (CVF). Organizational culture and culture change have

received increased attention over the last 20 years from both quantitative and qualitative

researchers. Qualitative researchers argue that quantitative approaches to assessing

organizational culture are limited because that method is unable to reveal the more deeply

hidden aspects of culture (Kwan & Walker, 2004). However, other researchers have

endorsed quantitative approaches, such as Cameron and Quinn's (2006) competing values

framework, due to its ability to make the field of organizational culture more accessible

through the use of survey methods (Denison, 1996).

The literature has relied heavily on the competing values framework, which as a

result, has been empirically validated (Cameron & Quinn, 2006; Kwan & Walker, 2004).

CVF has also been tested in various ways in the HR literature using both quantitative

(Prajogo & McDermott, 2005) and qualitative (Boggs, 2004) approaches, such as in

studies showing that certain culture values are positively associated with HR outcomes

including organizational commitment, job involvement and empowerment, and employee

outcomes including job satisfaction (Goodman, Zammuto, & Gifford, 2001), operational

practices (TQM) and productivity outcomes.

Cameron and Quinn's (2006) competing values framework offers the most compatible theoretical framework for my research for several reasons. First, CVF links to strategy implementation and RBV through the integration of both values and dimensions in the model. The values framework allows for an assessment of organizations based on competing dimensions, which draw out the characteristics of organizational cultures. Second, it provides a level of assessment that tie to RBV's social complexity of managerial style and leadership, along with its emphasis on organizational capital (i.e., organizational administration and coordination). Third, the framework has been empirically tested and shown to be valid (Cameron & Quinn, 2006; Igo & Skitmore, 2006; Kwan & Walker, 2004). Fourth, the framework is measured using the Organizational Cultural Assessment Instrument (OCAI), which assesses an organization's overall cultural profile through a self-reported survey method. The survey is easily transferable to a format that respondents can interpret and respond to.

The competing values framework differentiates organizational cultures on the basis of four culture types. Using the Organizational Cultural Assessment Instrument (OCAI), an organization's overall cultural profile and dominant characteristics can be assessed through a self-reported survey. The model considers two sets of competing values. The first set represents the contrast between the degree of control an organization exercises on the one hand and the degree of flexibility it offers on the other. In other words, where one dimension shapes the values for organizations that provide a flexible environment with discretion, the other dimension shapes values around a controlled environment with stability. The second set of competing values is represented by the contrast between the degrees to which an organization has an internal versus an external

focus. Organizations that value an internal focus are interested in the ways in which the organization integrates and operates internally, whereas organizations with an external focus are more interested in examining and responding to the forces outside. These competing dimensions serve as the basis to develop characteristics that shape four organizational culture types, which are measured by the OCAI.

Each of these four main culture types has notable distinguishing characteristics. Studies using this approach to examine organizational culture have revealed that a company often has one dominant culture type but demonstrates varying degrees of each of the other types (Goodman et al., 2001; Kwan & Walker, 2004; Prajogo & McDermott, 2005). The four organizational culture types are briefly described below.

Clan: social environment in which employees work well together in teams. Leaders focus on mentoring employees and facilitating group problem-solving. A strong emphasis on cooperation and openness is evident, highlighted by a concern for people and customers. High levels of employee loyalty are often found in clan-dominant cultures.

Market: results-oriented approach emphasizing growing the market and customer base. Leaders are hard driving and competitive with a high demand for achievement. Emphasis is on being a market leader, which is pursued through goal orientation.

Hierarchy: environment with a strong emphasis on rules and processes. Leaders in such environments are typically good coordinators and organizers. The focus of this culture type is to develop a stable environment with job security and conformity to rules by employees. Dependability and efficiency are key to its success.

Adhocracy: innovative, creative environment that encourages risk-taking. Leaders in this culture type are entrepreneurial and encourage others to take risks and innovate.

Employees motivated by challenges and new opportunities to create products and services are drawn to adhocracy-dominant cultures.

The four culture types are further defined based on six key dimensions, which include the dominant characteristics of the culture, the type of organizational leadership, the approach to management of employees, the organizational glue, the strategic emphasis, and the criteria for success of the organization (see Table 1).

Table 1: *Key Dimensions of the Organizational Cultural Assessment Instrument (OCAI)*

	Clan	Adhocracy	Market	Hierarchy
Dominant Characteristic	Internal/Flexibility Personal place	External/Flexibility Risk-taking	External/Control Competitive	Internal/Control Formal rules
Organizational Leadership	- focused on mentoring and facilitating	- takes innovative risks and is entrepreneurial	- results oriented, competitive and hard driving	- good at organizing and coordinating
Management of Employees	- teamwork and participation	- individual risk-taking and innovation	- high demand for achievement	- stability, job security and conformity
Organizational Glue	- high levels of employee loyalty and mutual trust	- innovative and creative ideas	- goal orientation and focus on getting the job done	- efficient operation with formal rules and procedures
Strategic Emphasis	- a trusting environment highlighted by cooperation and openness	- looks for new opportunities and welcomes new challenges	- gains new market share and reaches targets	- achieves operational efficiency
Criteria for Success	- concern for people and for developing people	- first with new ideas, products and services	- market leader	- focuses on reliability and dependability of service and product

Source: Cameron and Quinn (2006)

The CVF provides researchers with a measurement instrument to quantitatively assess organizational culture (Cameron & Quinn, 2006). The Organizational Culture Assessment Instrument (OCAI) has been extensively validated empirically by Cameron and Quinn (2006), as well as in numerous other studies relating to HR (i.e., Boggs, 2004; Goodman et al., 2001; Kwan & Walker, 2004; Prajogo & McDermott, 2005).

Summary

Developments in SHRM research have progressed from examining linkages between HR and firm performance and among HR, business strategy and firm performance to considerations of other intermediate, mediating and moderating relationships. As discussed in this chapter, while studies examining intermediate linkages, such as turnover (Batt et al., 2002), have emerged, others focusing on mediating and moderating relationships, such as workplace climate (Neal et al., 2005; Rogg et al., 2001), have also been carried out. Within SHRM research there has also been a recurring call for an examination of organizational culture that has not been addressed to date (Dyer & Ericksen, 2005; Roberts & Hirsch, 2005; Roehling et al., 2005).

Therefore, the aim of my research is to examine the relationship of organizational culture with the conventional SHRM model. The conventional SHRM model recognizes relationships between HR and firm performance, as well as among HR, business strategy and firm performance. This study also examines the relationship of organizational culture with firm performance and tests culture as a mediator between HRM and firm performance. In the following chapter, I discuss the theoretical framework to be used in the studies and develop a set of hypotheses to be tested. The chapter also outlines the research design and approach to the studies.

CHAPTER 3: THEORETICAL FRAMEWORK AND HYPOTHESES

This chapter describes the theoretical framework, hypotheses and research design for the studies to be conducted. The theoretical framework discussion includes the interplay between the resource-based view (RBV) of the firm and organizational culture, as well as the model to be examined in the studies. This section is followed by an outline of the hypotheses to be tested in each of the two studies. Finally, an overview of the research approach and design is presented.

Theoretical Framework

The Interplay between RBV and Organizational Culture

The resourced-based view (RBV) of the firm has become the most accepted and applied theoretical framework for SHRM research (Colbert, 2004; Wright, Dunford et al., 2001). This acceptance of RBV is because of its ability to provide a bridge between business strategy and HR through its focus on internal resources, such as human, organizational and physical capital. RBV is most notably recognized in the SHRM literature for its underlying assumption that HR advantage is achievable through a firm's ability to stabilize relationships with employees, which contributes to the firm's ability to increase performance and survive in the future.

Central to RBV are the four basic assumptions supporting sustained competitive advantage, which include value, rareness, imperfect imitability and substitutability (Barney, 1991). The RBV literature has most often tied organizational culture to imperfect imitability (Barney, 1991, 2001). In fact, very early in the development of RBV, Barney (1986) more directly suggested culture as a source of sustainable

competitive advantage and concluded that culture could differentiate one firm from another and hold promise for superior firm performance. SHRM researchers have also observed that for RBV to be taken "deeper" into the field requires a focus on imperfect imitability, which includes social complexity (Barney, 2001). The focus on social complexity comes from its emphasis on organizational elements such as human resource management systems and organizational culture.

Organizational culture provides a focus on social complexity through an examination of the organization's internal resources that are part of a more complex social phenomenon, including interpersonal relationships among managers, an organization's reputation, customers and culture (Barney, 1991). The use of Cameron and Quinn's (2006) Competing Values Framework (CVF) enables such an examination of social complexities in two ways. First, the CVF focuses on values to differentiate organizational cultures. In early developments of the CVF, it was noted that over-emphasizing any one culture type could therefore lead to a dysfunctional organization with negative firm performance outcomes (Quinn, 1988). For example, a firm with an over-emphasis on a clan organizational culture type may be too social, leading to lower levels of productivity and financial performance. Further, all organizations emphasize each culture type to differing degrees, which creates a unique culture that is difficult to imitate. Second, the dimensions of CVF address key aspects of human capital, as well as organizational capital. For example, organizational capital is concerned with the ways in which the organization administers, coordinates and structures itself. Several of the dimensions of CVF provide for an analysis of organizational capital. Further, dimensions

that intersect organizational and human capital, such as strategic emphasis and organizational glue, help to develop a deeper understanding of social complexity.

Theoretical Framework

Two quantitative studies aimed at examining SHRM relationships with organizational culture comprise my research. The two studies are conducted at different levels of analysis and use the resource-based view (RBV) of the firm with the competing values framework to test organizational culture as a mediator between HRM and firm performance outcomes. Study 1 provides a business unit level of analysis using call centres in Canada. Study 2 includes two field studies with separate call centre sites using individual-level data. Both studies examine the relationship of culture in the SHRM model. In addition, Study 2 also examines differences between manager and employee perceptions of HRM, culture, business strategy and firm performance.

A number of studies have tested SHRM relationships using both contingency and configurational perspectives (i.e., Hoque, 1999; Michie & Sheehan, 2005) but both approaches provide a holistic view of the HR system (configurational) while also testing for contingency on other organizational contextual realities, such as business strategy or organizational culture. Consequently, a configurational and contingency approach to theorizing is used in this study to examine the HR system and the internal fit of the HR system of practices, the horizontal alignment of HR with firm performance, and the external fit or vertical alignment of business strategy and organizational culture with HRM and firm performance. The studies' hypotheses to be tested are presented below.

Hypotheses for Studies

The Relationship between HRM and Firm Performance.

Several fundamental relationships in the SHRM model are central to exploring

new associations between HRM and firm performance. At the most basic level, the

research has shown that the system of HR practices (horizontal alignment) helps to

explain more of the variance in firm performance than do individual HR practices alone

(Delaney & Huselid, 1996; Huselid, 1995). Then an examination of the HR system of

practices and the relationship between HR and firm performance is essential to building

on the SHRM framework. Past research has shown that there is an association between

the HR system of practices and firm performance (Guest, Michie, Conway, & Sheehan,

2003; Guthrie, 2001; Guthrie et al., 2002; Huselid, 1995). Thus, it is expected that HRM

is positively associated with firm performance outcomes.

Hypothesis 1: The importance of HRM will be positively associated with employee

performance, operational performance and financial performance outcomes.

Examining Vertical Alignment.

Over the past 15 years, SHRM researchers have begun to explore numerous

intermediate and contingency relationships in addition to business strategy. Researchers

have theorized that organizational culture affects business strategy implementation and

firm performance outcomes relating to HR. Therefore, the model next examines

organizational culture for vertical alignment between HRM and firm performance using

the contingency approach.

Previous work has found that HR approaches with more emphasis on employee

involvement and participation have a positive effect on employee performance outcomes,

such as retention (Guthrie, 2001), and operational performance, such as productivity (Guest et al., 2003). Clan and adhocracy cultures both have key characteristics that align with employee involvement, teamwork and participation. Studies using the CVF have found that the clan and adhocracy culture types were positively related to job satisfaction, job involvement and empowerment (Goodman et al., 2001; Sheridan, 1992). Also, in another study using the CVF, Jones, Jimmieson and Griffeths (2005) found that the clan culture type was associated with an employee's readiness to accept organizational change. In addition, studies using the CVF focused on operational outcomes have also found that programs relating to Total Quality Management (TQM) have been more effective with clan and adhocracy culture types (Boggs, 2004; Prajogo & McDermott, 2005). Based on these previous findings, the following was hypothesized.

Hypothesis 2: Clan and adhocracy organizational culture types are positively associated with firm performance outcomes and partially mediate the relationship between HRM and firm performance.

Call centres using mass model approaches have been found to have higher levels of employee dissatisfaction and turnover (Batt & Moynihan, 2002). Mass models are characterized as being more cost focused and efficient as compared to the professional model, which is characterized as being more autonomous and complex. Further, studies have also found that organizational culture values that are more market and hierarchical in nature have a negative effect on employee and operational performance (Boggs, 2004; Sadri & Lees, 2001; Sheridan, 1992). Accordingly, I hypothesized:

Hypothesis 3: Market and hierarchy organizational culture types are negatively associated with firm performance outcomes and partially mediate the relationship between HRM and firm performance.

In the SHRM literature, the most frequently examined contingency relationship for vertical alignment with HR and firm performance has been business strategy (i.e., Hoque, 1999; Michie & Sheehan, 2005; Neal et al., 2005; Youndt, Snell, Dean, & Lepak, 1996). This concentration is not surprising due to the introduction of Porter's model (1981), which provided researchers with a framework to examine such a linkage more readily. Porter's model (1981) distinguishes between two types of business strategy. The first is a cost strategy, which is characterized by a firm's thrust to reduce costs, ensure low response times and provide lower cost services. The second is a differentiation strategy, which focuses on quality and innovation and highlights characteristics such as improving the quality of service, customizing products, developing new techniques and producing products for high segment markets. Empirical studies examining the relationship of business strategy with HRM and firm performance have found that firms with a differentiation business strategy are more likely to invest in HRM and firms with a cost strategy are less likely (Hoque, 1999; Michie & Sheehan, 2005).

SHRM researchers have found that organizations pursuing differentiation strategies tend to benefit more in terms of firm performance as a result of HRM investment (Guthrie et al., 2002; Youndt et al., 1996). The research further suggests that a differentiation strategy is closely linked to an HR system of practices. For example, an organization focused on innovation and quality is more likely to invest in HR practices that encourage self-managed teams and performance based compensation, whereas

organizations with cost based strategies are more likely to also introduce HR systems that focus on narrow job designs, strong managerial controls and less autonomy to help control overall labour costs (Hoque, 1999; Michie & Sheehan, 2005). Although past research has suggested that a cost business strategy has a negative association with firm performance, most studies have found that a differentiation business strategy has a stronger relationship in the SHRM model (Hoque, 1999; Michie & Sheehan, 2005). Consequently, an examination of this relationship is tested using the contingency approach.

Hypothesis 4: The differentiation business strategy has a positive association with firm performance and partially mediates the relationship between HRM and firm performance.

Examining Intermediate Linkages.

Research attention on intermediate linkages in SHRM has increased, most often focusing on the linkages with employee, operational and financial performance. For example, Shaw and Gupta (2005) found that there was a intermediate relationship between turnover (an employee performance measure) and financial performance. Further, Collins and Smith (2006) found that there was a linkage between employee outcome measures, such as knowledge exchange, with financial performance (sales growth and revenue generation). Research specifically focused on culture has found that employees involved in programs such as Total Quality Management (TQM) have had a positive effect on operational performance with cultures with characteristics such as clan and adhocracy, and a negative effect with culture with characteristics such as market and hierarchy (Boggs, 2004; Prajogo & McDermott, 2005). In addition, another study found that culture had a more direct influence on the employee and less direct influence on

financial performance (MacIntosh & Doherty, 2005). Based on these past findings, it

may be expected that employee related outcomes may be directly associated with

employee and operational performance, whereas organizational culture types have an

indirect association with financial performance as a result of their relationships with

employee and operational performance.

Hypothesis 5: Employee and operational performance have a direct association with

financial performance outcomes, while organizational culture types have an indirect

association with financial performance.

Difference in Manager and CSR Perceptions.

The hypotheses were tested in Study 1 (The National Call Centre Study), and

Study 2 (Field Studies). In addition, Study 2 examines differences in perceptions between

customer service representatives (CSRs) and managerial employees about HRM, business

strategy, culture and firm performance. Study 2 involved collecting responses from both

CSRs and call centre managers. Most SHRM research has comprised management

respondents only and more specifically, executive-level participants. Consequently,

SHRM researchers have called for research at the individual level of analysis to compare

employee versus manager perceptions of HR (Bowen & Ostroff, 2004). Bowen and

Ostroff (2004) suggest that an examination of perceptions of HRM by both decision-

makers and employees reveals what practices are visible, relevant and consistently

administered. This guidance is further supported by Huselid and Becker (2000), who

argue the importance of measuring actual perceptions of HR practices as implemented

and not as developed in policy, which, they suggest, should include surveying both

employees and senior executives. MacIntosh and Doherty (2005) found some preliminary

evidence to support this argument. In their study, it was found that leader perceptions of positive aspects of culture were higher than employee perceptions. As a result, it is expected that manager perceptions are higher than employee perceptions of HRM.

Hypothesis 6: Perceptions of HRM, business strategy, firm performance and organizational culture differ between managers and employees.

Research Framework

Research Purpose and Questions

This research examines the relationship between HRM and firm performance and specifically, the impact of HRM on employee, operational and financial performance. More specifically, it examines the relationship between organizational culture and firm performance, and tests for the effects of mediation of culture between HRM and firm performance. Finally, an issue relating to multiple levels of analysis is addressed through an examination of employee and manager respondents.

Research Approach and Design

A configurational and contingency approach to theorizing is used in the research. From a configurational approach, an examination of the horizontal alignment of HR practices is tested for internal fit. From a contingency perspective, vertical alignment is examined to determine the external fit between HRM and business strategy, as well as HRM and organizational culture. According to Rondeau and Wagar (2001), "Contingency theory suggests that if certain HR practices have the ability to influence performance outcomes, they might only be effective if aligned appropriately with normative culture or operative workplace climate" (p. 195). Examining the vertical

alignment of organizational culture with HR moves us beyond business strategy to consider other contingencies.

In terms of level of analysis, my research focuses on the business unit. Level of analysis has been a central methodological decision for SHRM researchers and approaches have varied. For example, while studies are frequently conducted at the organization level, others focus on the plant or business unit level. A review by Wright and Gardner (2003) found that of the studies sampled, 70% were at the organizational level, 24% at the plant level and only 5% at the business unit level. Researchers have predominantly focused on the organizational level of analysis due to the ability to access public data about firms. However, it has been argued that the business unit level provides the "optimal" setting for reporting accurate measures of business strategy, HR and firm performance (Wright, Dunford et al., 2001; Wright & Gardner, 2003). Because changes occur at many levels of the organization based on differences in human capital skills, behaviours and desired outcomes, the business unit level is thought to reflect the flexibility required in HR systems to accommodate such changes. In fact, Wright, Dunford et al. (2001) note that "if a centralized HRM function attempts to develop a standard set of HR practices to be rigidly applied across all sites, it is likely that many sites will have practices that do not fit well with their unique competitive situation" (p. 762). Although most SHRM studies have been at the organizational level of analysis, calls have been made for more on plant and business unit level studies (Wright & Gardner, 2003; Wright, Gardner, & Moynihan, 2003).

Using Call Centres in SHRM Research

Four main considerations make call centres appropriate for SHRM studies. First, call centres in Canada represent a wide variety of industries, as well as a large and growing portion of the workforce. According to Datamonitor (2003), Canada is one of the world's top five countries in establishing call centre operations. Between 2003 and 2008, approximately 176,000 call center agent positions were projected to be created in North America, with most forecasted to be in Canada (Datamonitor, 2004). In fact, by the end of 2008 Canada is expected to increase its agent employment by 7.6 % CAGR (compounded annual growth rate) and call centres by 3.3 %. In short, Canada has a robust and diverse call centre environment in which to examine SHRM.

Second, call centres have both internalized and externalized employment models. The resource-based view of the firm suggests that owning human capital, such as externalized employment models, makes sense when an organization gets sustained competitive advantage and higher firm performance (Lepak & Snell, 1999). Lepak and Snell (1999) argued that researchers are not addressing the different types of HR architectures between internalized and externalized employment, which oversimplifies the SHRM findings and directions in the field. Although this argument was made almost a decade ago, few empirical studies have examined these employment models from an SHRM perspective. As discussed in Chapter 2, call centres have both internalized (in-house) and externalized (outsourced) employment models and, therefore, provide an environment in which to examine differences between the two.

Third, Becker and Huselid's (2006) recent overview of SHRM research positioned strategy implementation as the key mediating variable in the SHRM

relationship. More specifically, Becker and Huselid (2006) addressed approaches to developing our understanding of strategic capability and highlight shortcomings that future empirical studies must overcome. Central to these new directions is an emphasis on strategic implementation which is developed conceptually through a model differentiating HR practices and strategic business processes by focusing research on samples that are more context specific, such as the information technology focus in Collins and Smith's (2006) study. Similarly, call centres also provide a context specific environment in which to conduct SHRM research.

Finally, the effects of work organization and HR practices in both mass and professional call centre service models have revealed differences in employee, operational and financial outcomes (Batt & Moynihan, 2002). For example, mass model environments that emphasize cost control are found to be more closely regulated and interactions with customers are often scripted, with restrictive instructions for outsourced employees in conversations with transnational customers (Mirchandani, 2004a; 2004b), whereas employees in professional model environments have more autonomy and discretion to perform their work (Bain et al., 2000). These differences in work organization and HR provide the context for examining the effects of organizational culture with firm performance.

Research Summary

To summarize, my research comprises two concurrent studies using a quantitative approach. Study 1 includes a sampling of call centre sites across Canada. The strengths of this approach lie in its ability to capture a macro-level view of call centres and examine a series of factors relating to HRM, organizational culture, business strategy and firm

performance. Study 2 focuses on field studies of two call centres that were selected using a convenience sampling approach. In addition to the central question about the relationship of organizational culture with HRM and firm performance, these field studies also help examine the issue relating to differences between manager and employee perceptions about HRM, and in addition, investigate differences in perceptions about culture, business strategy and firm performance. The following two chapters provide the results of these studies.

CHAPTER 4: STUDY 1 – NATIONAL STUDY OF CANADIAN CALL CENTRES

Method

Sampling Approach

Purposeful convenience sampling was used to obtain the sample of Canadian call centres. As noted by leading researchers in the area of SHRM and call centres (Holman, Batt, & Holtgrewe, 2007), it is difficult to source a list of such organizations. This issue arises predominantly because call centres are embedded in many organizations, making it difficult to identify all the possible units. While some organizations (such as outsourcers) are solely designed to deliver call centre services, others have developed a call centre operation to service external or internal customers. Although an effort was made to source lists from leading list brokerage service agencies, the available lists were limited to the Service Industry Classification (SIC) codes of business support services (864121) and telemarketing (438912), both of which represent mostly outsourcers. Other SIC codes can be applied but because of the embedded nature of call centres it is difficult to isolate call centres directly.

In an attempt to identify call centres in Canada, I conducted an extensive examination of the call centre environment through the use of multiple strategies, consistent with past research involving Canadian and U.S. call centres (Batt et al., 2005; Van-Jaarsveld et al., 2007). First, research was conducted using databases and public sources by province in Canada. The sources used for this research included: Canada 411 databases using the search terms of call centres, outsourcer and business service

processing; economic development websites listing call centres; call centre directories provided online; online job sites for call centres; Industry Canada Stategis online directory; and the Canadian Marketing Association online directory. This database was used to contact organizations directly in areas where no or limited association access was available, such as Atlantic Canada.

Second, through collaboration with Contact Centre Canada, an organization created and funded by Human Resource Development Canada (HRDC), a working relationship was forged with call centre associations across the country to distribute the survey. These relationships included Contact Centre Nova Scotia, Connect NB, Manitoba Customer Contact Association, Alberta Call Centre Association, and the Ottawa Regional Call Centre Association. Although the associations provided an entry point to access call centre managers, many had lists which contained a high percentage of vendors and suppliers rather than direct practitioners in the field. However, the associations had levels of membership, which allowed me to target call centre practitioners only.

Third, partnerships with institutions focused on call centres and customer service were developed. This included two working partnerships with the BC Call Centre of Excellence with the British Columbia Institute of Technology (BCIT) and the International Customer Service Association (ICSA). Both organizations have relationships with call centre professionals. The same practice as above was used to size the lists provided by both organizations. And finally, through working with economic development agencies in various regions without active call centre associations, a list of possible call centres was developed.

The business unit level of analysis was the focus for my study (Batt et al., 2002; Collins & Smith, 2006). I drew on Wright and Gardner's (2003) direction that workplace practices and culture may vary among establishments that are part of a larger organization. Wright and Gardner (2003) state that the business unit level of analysis provides the optimal setting for examining relationships of linkages between HR practices and other factors such as business strategy. In my study, each call centre site and associated business unit that completed the survey was considered as a separate unit of analysis. For example, organizations such as CIBC (in-house) or ICT (outsourced) have multiple call centre site locations dispersed throughout Canada and may contain numerous independent business units. Further, even within these sites, the call centre may actually house separate and disparate business units that are associated with different departments, subsidiaries or contracts. These business units may have distinctly different operating procedures, human resource management practices, human capital requirements and organizational structure but are housed together to share infrastructure costs.

Data Collection

An electronic survey was sent by email to managers working in call centres across Canada using the email addresses sourced from the above approaches. Only call centre practitioners were included in the list, and vendors and suppliers were removed. The survey distribution process followed Dillman's (2007) business to business and email distribution principles for tailored survey design. The email provided an explanation of the study, a list of benefits to participants and an invitation to go to the URL (Universal Resource Locator) attached to complete a survey. Subsequent reminder emails were

forwarded to all potential participants after two weeks. Further, internet guidance relating to HTML (Hyper-Text Markup Language) protocols, pre-testing and access control (to prevent multi-responses from the same participant) were adhered to in the development and deployment of this survey (Rogelberg, Church, Waclawski, & Stanton, 2006).

The studies in this research received Research Ethics Board approval from Saint Mary's University, Halifax, Nova Scotia, Canada (Appendix B: Research Ethics Approval - Saint Mary's University, REB 07-028) and Acadia University, Wolfville, Nova Scotia, Canada (Appendix C: Research Ethics Approval - Acadia University, REB 07-12).

Although 324 managers responded to the survey, only 307 surveys were used in the study due to missing data on a small number of variables. The surveys with missing data were a result of items not completed relating to the control variables. Missing data varied across all ten control variables for these survey responses. In order to identify single versus multiple respondents from each business unit, survey respondents were asked to provide specific information about their organization and business unit. The blended response rate for data collection was 34% with the highest response rate obtained by calling firms, which ranged from 89% to 100% by province with a mean of 95%. Email distributions by association ranged from 23% to 33% with a mean of 28%. To address issues of response bias, the sample from this survey was compared to a study of Canadian call centres completed in 2005 (Van-Jaarsveld et al., 2007). The results revealed a similar distribution of call centres when compared on the basis of region, size, industry, type of call centre (in-house versus outsourced), and application (inbound versus outbound).

Measures

Study 1 was designed to obtain a macro overview of the relationships among HRM, organizational culture, business strategy and firm performance. The survey was developed and included scales adopted from various SHRM researchers (see Appendix D: National Contact Centre Survey).

Dependent Variables.

Firm Performance. The dependent variables in this study addressed aspects of *firm performance*, and included measures of employee, operational and financial performance. Subjective measures of performance were used and were developed from perceptual performance measures (Huselid et al., 1997; Wall et al., 2004). Managers were asked to provide their perceptions concerning various aspects of firm performance, which included three scales to measure overall employee, operational, and financial performance. Internal consistency measures were acceptable for employee performance ($\alpha = 0.84$), operational performance ($\alpha = 0.82$) and financial performance ($\alpha = 0.80$) (see Appendix E). The items making up the scales were measured using a five point scale (1 = very low; 5 = very high). While I relied on subjective perceptual measures of performance, there is evidence that subjective and objective performance measures may be related (Wall et al., 2004).

Independent Variables.

Human Resource Management. In an effort to learn more about human resource management, I asked a series of questions addressing six HRM areas: (1) recruitment and selection, (2) retention, (3) training, (4) job design, (5) employee involvement, and (6) rewards and compensation. These specific HRM areas were selected based on previous

studies focused on HRM principles and as such are referred to as HRM (HR Bundle 3)

for all studies (Combs et al., 2006; Sun, Aryee, & Law, 2007; Way & Johnson, 2005).

For each question, respondents indicated the degree of importance to the organization

(1=not at all important; 5=very important). The questions were adapted from a number

of established scales from previous studies including Bae and Lawler (2000), Delery and

Doty (1996), Hoque (1999), and Michie and Sheehan (2005) and comply with Pfeffer's

(1998) HR principle design. For each of the six HR areas, I had a minimum of five

questions. Internal consistency was assessed for each scale using Cronbach's alpha (see

Appendix F). Table 2 shows the Cronbach's alphas, number of items and sample items

for each of the six HR scales used in this study.

Table 2: *HR Practice Scale Reliabilities and Sample Items.*

Scale	Number of Items	Cronbach's alpha	Sample Item
Recruitment	8	.81	make an extensive effort when selecting new employees.
Retention	6	.82	have a commitment to long term employment.
Training	8	.93	make a significant investment in training after hired.
Job Design	5	.73	have clearly defined jobs and duties.
Emp Involvement	10	.91	create a very cooperative and trustful climate.
Rewards	4	.69	have a wide range in pay within the same job grade.

Note: Cronbach's alpha index of internal consistency

Organizational Culture. The Organizational Cultural Assessment Instrument

(OCAI) developed by Cameron and Quinn (2006) was used to measure organizational

culture. The OCAI has six sections, addressing dominant characteristics, organizational

leadership, management of employees, organizational glue, strategic emphasis, and

criteria for success. The psychometric properties of the OCAI have been tested in

numerous studies reporting satisfactory levels of internal consistency (Cameron & Quinn,

2006; Igo & Skitmore, 2006; Kwan & Walker, 2004). For each of the six sections,

participants were asked to allocate 10 points among four questions (each of the questions addressed one of the four culture types – clan, adhocracy, market or hierarchy). Half-points were permitted and the survey had a built-in counter to ensure that the total for the four questions added to 10. For instance, a respondent who believed that the workplace had a strong clan culture, a moderate adhocracy culture, and a weak market and hierarchy culture might allocate the points as 5.0 for clan, 3.0 for adhocracy, 1.0 for market, and 1.0 for hierarchy. To calculate the specific culture score, I summed the numbers for the six questions dealing with that culture type and then divided by six. This process provided for an overall score for each of the organizational culture types. Internal consistency of the organizational culture scales were acceptable for clan ($\alpha = 0.84$), adhocracy ($\alpha = 0.79$), market ($\alpha = 0.83$) and hierarchy ($\alpha = 0.77$) (see Appendix G).

Business Strategy. Based on previous research (Delery & Doty, 1996; Guthrie et al., 2002; Horgan & Muhlau, 2003; Wood et al., 2006) and Porter's (1981) model, I measured business strategy using a 12-item scale with questions relating to either a cost or a quality and innovation business strategy. For each question, respondents were to indicate the degree of importance to the organization (1=not at all important; 5=very important). Internal consistency for the differentiation scale ($\alpha = 0.86$) was within the acceptable range (see Appendix H).

Control Variables.

Based on a review of previous SHRM (Colvin et al., 2001; Guthrie et al., 2002; Neal et al., 2005) and call centre specific research (Batt et al., 2002; Van-Jaarsveld et al., 2007; Wood et al., 2006), I controlled for a number of business unit characteristics, which could be potentially confounding variables in the model. After a review of the SHRM

specific literature, my analysis revealed that these studies controlled for a variety of variables including organizational size, union presence, country of ownership, industry, location and age (Collins & Smith, 2006; Delaney & Huselid, 1996; Guthrie, 2001; Guthrie et al., 2002; Hoque, 1999; Horgan & Muhlau, 2003; Huselid, 1995; Kwan & Walker, 2004; Michie & Sheehan, 2005). In addition, call centre HRM studies have recognized the need to focus on other controls which are workforce specific and include variables such as nature of the call centre and application (Batt et al., 2005; Holman et al., 2007; Van-Jaarsveld et al., 2007). As a result of this analysis, in this study I controlled for ten variables. These variables were entered into the regression equations to control for other factors that may be associated with employee performance, operational performance and financial performance. The control variables included: the *size* of the business unit (using a natural logarithmic transformation of the number of employees); the *age* of the business unit (using a natural logarithmic transformation of the number of years it had been in operation); the *union* status (1 = union; 0 = non-union); the *industry* sector served; the *country ownership* of the call centre (Canada, U.S., other); the *type* of contact centre (in-house, outsourced or both); *customer service; sales; technical support*; the *application* (outbound, inbound, both); the *region* the call centre was located in (Western = British Columbia, Alberta, Manitoba; Central = Ontario, Quebec; Atlantic = Nova Scotia, New Brunswick, Prince Edward Island, Newfoundland); and *urban or rural* (1 = rural, 0 = urban).

Results

Descriptive Statistics

Descriptive statistics, internal consistency values and intercorrelations for this study are contained in Table 3. Of the 324 cases, 17 had missing data and thus 307 cases were used in the analysis. The distribution of responses for each of the regions in Canada was 36% for Western Canada, 36% for Central Canada and 28% for Atlantic Canada. Over 66% of the respondents represented in-house call centre work establishments with 22% representing outsourced and 11% a combination (performing both in-house and outsourced work within the same business unit). Atlantic Canada had much larger call centres (43 % of the responses in the region came from call centres with 300 or more employees). Western Canada had smaller centres (60 % had 100 employees or less) and Central Canada had a broader distribution of contact centre sizes (with 44% having 100 employees or more). The sample was broadly distributed among various industry sectors, with the highest response from the finance (17%) and telecommunications (22%) sectors. Ownership of the call centres was largely Canadian (69%), followed by U.S. (26%) and then by other (5%). The majority of call centres were located in urban locations (86%) with the remainder in rural areas (14%).

With respect to workforce characteristics, 73% of the call centres were non-unionized and 27% were unionized. In-house call centres were more highly unionized than outsourced centres (33 % and 6 % respectively), with the highest percent of unionized outsourced call centres in Western Canada (19 %). The application call direction represented work that was largely inbound (54%) followed by a combination of inbound and outbound (40%) and then outbound only (7%).

In the sample, the highest average mean score for culture was clan (*M*= 3.03), followed by market (*M*= 2.65), then by hierarchy (*M*= 2.39) and last by adhocracy (*M*= 1.92). There was some variability in the average mean score of HR practices with employee involvement having the highest (*M*= 4.13) and job design the lowest (*M*= 3.69). The highest to the lowest average mean scores for HR practices were as follows: 1. employee involvement (*M*= 4.13); 2. retention (*M*= 4.00); 3. training (*M*= 3.95); 4. recruitment (*M*= 3.85); 5. rewards (*M*= 3.75); and 6. job design (*M*= 3.69). Overall, HRM had an average mean score of 3.92. Of the three firm performance outcomes examined, operational performance (*M*= 3.93) was the highest, with financial performance (*M*= 3.54) second and employee performance (*M*= 3.50) last. Finally, the differentiation business strategy (*M*= 3.93) had an average mean score higher than the cost business strategy (*M*= 3.26).

Testing HRM Hypotheses

The hypotheses in this study examined the relationships among HRM, firm performance, business strategy and organizational culture. The models are presented based on the three firm performance outcomes, employee performance (Model 1), operational performance (Model 2) and financial performance (Model 3). All three firm performance outcomes are presented for all of the hypotheses.

Horizontal Alignment of HRM.

Based on previous discussion in the SHRM literature, the HR bundle was examined using three different approaches, which included averaging all 41 items of the HR practice scales, averaging the six sub-scales, and weighting the six practices using factor analysis. Following Osterman (2000), each of the sub-scales was weighted based on

factor scores and then an overall HR measure was created, which had a Cronbach's alpha of 0.95. The six HR sub-scales were subjected to a principal components analysis (PCA) using SPSS. The suitability of the data for factor analysis was first examined prior to conducting the PCA. The sample used to conduct the PCA was greater than 300, which addresses issues relating to sample size (Tabachnick & Fidell, 2000) and an inspection of the correlation matrix revealed several coefficients that were 0.3 and above (Pallant, 1997). Further examination of the data revealed Bartlett's Test of Sphericity reached significance ($p < .01$) and the Kaiser-Meyer Oklin value was 0.90, exceeding the recommended value of 0.6 (Pallant, 1997).

The results of the analyses of the HR bundle versus the individual practice approach are presented in Appendix I. The difference among the various approaches to measuring the HR bundles revealed a minimal variation in ΔR^2 at Step 2 of the regression analyses for each of the three firm performance measures examined. However, the analyses of the HR practice sub-scales using HLR revealed that the effect of HR practices vary and explain less of the variance than the HR bundle. For example, when I examined the effect on employee performance the HR bundle explained an additional 7.5% of the variance, whereas the individual practices explained at the highest level 6.5% (employee involvement) and at the lowest 2.5% (rewards). These findings are consistent with past research on HR bundles (Huselid, 1995) and a recent meta-analysis by Combs et al. (2006), which found support for the system of practices having more of an effect than the individual practices alone.

Table 3: *Descriptive Statistics for National Call Centre Sample*

Cronbach's Alphas, Means, Standard Deviations and Correlations for Variables

Variables	α	M	SD	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Employee Performance	(.84)	3.50	.63													
2. Operations Performance	(.82)	3.93	.63													
3. Financial Performance	(.80)	3.54	.74													
4. Size	--	4.61	1.51	-.18**	-.04	.07										
5. Age	--	3.46	.91	.16**	.12*	.07	-.09									
6. Location - Rural	--	0.14	.35	-.07	.03	-.03	-.00	-.12*								
7. Ownership – U.S.	--	0.26	.44	-.02	.06	.07	.30**	-.15**	.02							
8. Ownership - Other	--	0.05	.21	-.03	.07	.03	.07**	-.20**	-.09	-.13**						
9. Application (outbound)	--	0.07	.26	.03	.06	-.04	-.18**	-.05	.14**	-.08	-.06					
10. Application (combined)	--	0.39	.49	.12*	.10*	.14**	-.08	.12*	-.15**	-.03	.08	-.23**				
11. Type (outsourced)	--	0.23	.42	-.17**	-.04	-.08	.16**	-.28**	.09	.10*	.10*	.05	-.09			
12. Type (both)	--	0.11	.31	.07	.05	.01	.03	.03	-.02	.03	-.08	.14**	.13**	-.20**		
13. Region - Western	--	0.36	.48	.12*	-.07	.11*	-.15**	-.00	-.12*	-.07	-.10*	-.06	.08	-.15**	.05	
14. Region - Atlantic	--	0.29	.45	-.04	.13**	.05	.27**	-.01	.11*	.10*	.10*	-.05	-.11*	.18**	-.06	-.47**
15. Union - Yes	--	0.26	.44	-.14**	-.12*	-.14**	-.01	.39**	-.05	-.29**	-.06	-.14**	-.03	-.22**	.03	.10*
16. Customer Service	--	0.84	.37	-.02	-.04	.04	.07	.11*	-.03*	-.01	-.03	-.38**	-.06	-.06	-.02	-.03
17. Sales	--	0.43	.50	.15**	.11*	.20**	.11*	-.12*	.20**	.07	.10*	.11*	.07	.07	.04	-.01
18. Tech Help	--	0.32	.47	-.05	-.04	.04	.25*	-.08	.02	.27**	-.08	-.17**	.08	.13*	.06**	-.02
19. Energy	--	0.06	.24	-.07	-.05	-.00	-.10*	-.07	-.07	-.06	-.05	.08	.05	.15**	.13	.06
20. Financial Services	--	0.17	.38	.09	.10*	.12*	.09	-.11*	.01	.04	-.02	.03	.03	-.01	-.05	.13**
21. Government	--	0.13	.33	-.02	-.05	-.21**	-.05	.20**	-.04	-.18**	-.08	.04	.04	-.05	.09	.06
22. Health	--	0.06	.24	.10*	.06	.04	-.15**	-.02	-.06	-.09	-.06	.03	.00	.09*	.00	.08
23. Manufacturing	--	0.07	.25	.07	.07	.04	-.16**	.07	-.04	.07	.06	.12*	.02	-.03	-.01	.02
24. Retail	--	0.11	.31	.04	.10*	.10*	.03	-.14**	-.02	.11*	.03	-.02	.00	.03	.02	-.02
25. Telecommunications	--	0.22	.41	-.13**	.02	.03	.15**	-.13*	.13*	.01	-.04	-.00	-.10*	.25**	.12*	-.06**
26. Tourism	--	0.07	.41	.10*	.03	.10*	.02	-.02	.00	.02	-.06	-.03	-.08	-.03	-.01	.12*
27. Transportation	--	0.06	.24	.01	.02	.03	.01	.07	-.02	.01	.01	-.02	-.11*	.09*	-.04	.02
28. HRM	(.90)	3.93	.57	.36**	.34**	.40**	.06	.13**	-.03	.09	.07	-.08	.09	-.16**	.01	.08
29. Cost	(.71)	3.26	.90	-.12*	.10*	.08	.09*	-.04	.09	-.01	-.00	-.02	-.09	.05	.10*	-.10*
30. Differentiation	(.86)	3.90	.74	.25**	.22**	.41**	.03	-.01	-.08	.10*	.03	-.05	.01	-.05	.07	-.07
31. Clan	(.84)	3.03	1.08	.43**	.23**	.07	-.15**	.06	.05	-.10*	.03	.01	-.03	-.06	.04	.03
32. Adhocracy	(.79)	1.92	.76	.13**	.08	.31**	-.15	-.08	-.03	.01	.01	-.08	.01	-.05	.03	.11*
33. Market	(.83)	2.65	1.06	-.41**	-.24**	-.07	.22**	-.12*	.01	.18**	.03	.09	-.05	.14**	.00	-.06
34. Hierarchy	(.77)	2.39	.89	-.15**	-.06	-.27**	-.06	.14**	-.04	-.08	-.08	-.05	.08	-.05	-.04	-.06

Table 3: *Descriptive Statistic for National Call Centre Sample (Continued)*

Means, Standard Deviations and Correlations for Variables

Variables	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
15. Union - Yes	-.07														
16. Customer Service	.06	.08													
17. Sales	.19**	-.20**	.05												
18. Tech Help	.09	-.08	.16**	.02											
19. Energy	-.08	.00	.04	-.03	-.09										
20. Financial Services	-.18**	-.19**	-.04	.09*	-.11*	.10*									
21. Government	-.11*	.38**	.01	-.13**	-.01	.23**	-.05								
22. Health	-.10*	-.05	-.01	-.10*	.04	.22**	.06	.11*							
23. Manufacturing	-.09	-.13**	.01	-.03	-.02	.15**	.07	.05	.10*						
24. Retail	.06	-.04	.07	.25**	.01	.13**	.10*	.06	.18**	.11*					
25. Telecommunications	.22**	.03	.04	.15**	.17**	.06	.02	-.01	.07	-.02	.10*				
26. Tourism	.05	-.07	.08	.16**	-.02	.09*	.03	.09*	.15**	.08	.11*	.04			
27. Transportation	.05	.07	.07**	.04	.07	.17**	.02	.07	.23**	.15**	.27**	.14**	.26**		
28. HRM	.05	-.10*	.03	.11*	.10*	-.06	.04**	-.10*	.09*	.03	.02	.02	.08	-.00	
29. Cost	.12*	-.06	-.02	.01	-.06	.00	.09*	-.15**	-.14**	-.04	-.00	.15**	-.05	-.05	.11*
30. Differentiation	.07	-.17**	.06	.17**	.11*	.01	.05	-.26**	.10*	.08	.10*	.15**	.14**	.07	.46**
31. Clan	.09	-.09	.01	.03	-.15	.08	.02	-.02	.16**	.00	.00	-.06	.06	-.06	.26**
32. Adhocracy	-.12*	-.08	.05	.14**	.06	-.04	.04	-.19**	-.07	.01	-.01	-.05	-.03	-.06	.03
33. Market	.03	-.08	-.09	.01	.09	-.05	.10*	-.17**	-.13**	.02	-.02	.12*	-.08	.00	-.19**
34. Hierarchy	-.04	.27**	.05	-.17**	.02	.08	-.13**	.38**	.03	-.03	.03	-.03	.05	.11*	-.11*

Variables	29	30	31	32	33
30. Differentiation	.15**				
31. Clan	-.09	-.04			
32. Adhocracy	-.03	.26**	-.21**		
33. Market	.10	.03	-.75**	-.03	
34. Hierarchy	-.04	-.21**	-.12*	-.57**	-.30**

Note: *p<.05. **p<.01
          Listwise *n* = 307

Testing the Relationship between HRM and Firm Performance.

The following describes Step 1 and 2 of the regression models for employee performance (Model 1), operational performance (Model 2) and financial performance (Model 3). These two steps remain the same for all three models in the testing of subsequent hypotheses in this study.

The control variables are presented in the tables provided for each of the regression models. Overall, eight of the 10 control variables entered into the model were significant at varying points in time. These included organizational size, organizational age, union presence, some industry types, region, sales and application (outbound or inbound). Organizational size was found to be significant and negative in all models and at all steps for employee performance. Similarly, union presence was found to be significant and negative in all models and at each step, with the exception of the model entering clan at Step 3. The age of the business unit was significant and positive at Step 3 in all three models at varying points for the differentiation business strategy and hierarchy culture. Call centre business units with a sales nature of work were found to have a positive and significant association in the employee performance model for the clan, market and hierarchy culture types and, the differentiation business strategy. The Atlantic Canada region variable was significant and positive in several models for operational performance as was a combined inbound and outbound application. Finally, from an industry perspective, government was significant and negative for all financial performance models. Several other industry types (energy and financial services) were also significant in various models. The changes in control variables over each step of the regression analyses are provided in the tables for all models.

Hypothesis 1 addressed whether there was a relationship between HRM and firm performance (see Table 4). The regression analysis was first run with employee performance (Model 1) as the dependent variable. At Step 1, the control variables accounted for 18.7% of the variability in employee performance (R^2 = .187, F = 2.703, p < .01). With HRM entered at Step 2, an additional 7.5% of the variance relating to employee performance was explained (ΔR^2 = .075, ΔF = 28.746, p < .01) and had a significant and positive association with employee performance (B = .331, t= (5.36)). The total model after Step 2 explained 26.2% of the variability (R^2 = .262, F = 4.000, p < .01).

Next, the association between HRM and operational performance (Model 2) was examined. At Step 1 with the control variables entered, 12.7% of the variability in operational performance was explained (R^2 = .127, F = 1.715, p < .05). After Step 1, the HRM variable explained an additional 7.1% of the variance (ΔR^2 = .071, ΔF = 24.810, p < .001) and was significantly and positively associated with operational performance (B = .317, t= (4.98)). The model after Step 2 accounted for 19.8% of the variance (R^2 = .198, F = 2.777, p < .01).

Finally, the association between HRM and financial performance (Model 3) was examined. After Step 1, the control variables accounted for 16.9% of the variability in financial performance (R^2 = .169, F = 2.396, p < .01). At Step 2, HRM accounted for an additional 7.5% of the variance (ΔR^2 = .075, ΔF = 28.078, p < .01) and was found to be significantly associated with financial performance (B = .385, t= (5.30)). After Step 2 with the control variables and HRM entered into the model, 24.5% of the variance in financial performance was explained (R^2 = .246, F = 3.644, p < .01).

Overall, support was found for Hypothesis 1 for a relationship between HRM and firm performance with all three firm performance outcome measures. For each of the models, the HRM variable explained over 7.0% of the variance in employee, operational and financial performance.

Testing Vertical Alignment

The remaining hypotheses were also tested using a series of hierarchical multiple regression analyses, which is consistent with Baron and Kenny's (1986) recommendation for testing mediated models and with SHRM research for testing mediating relationships (Michie & Sheehan, 2005; Neal et al., 2005). The hypotheses in this section test for alignment with organizational culture and business strategy.

Models 1 through 3 are used to report the results for each of the hypotheses. Steps 1 and 2 remain the same for each of the subsequent models. For each of the separate hypotheses, Step 3 of the models, in addition to being labeled model numbers 1 through 3, are referred to as: a) clan; b) adhocracy; c) market; d) hierarchy and e) differentiation. For example, Hypothesis 2 tests for relationships of the clan and adhocracy cultures with each of the firm performance outcomes and the effect it has on HRM. The model for clan is referred to as 1a - employee performance, 2a - operational performance and 3a - financial performance and the model for adhocracy is referred to as 1b – employee performance, 2b – operational performance and 3b – financial performance. The HRM coefficients for Step 2 of each of the models are provided at the top of the Step 3 tables for ease of reference.

The hypotheses in the following section for vertical alignment are presented in two steps. First, for each of the organizational culture types and the differentiation

business strategy the analyses for testing whether there were positive or negative

associations with firm performance outcomes and the effects on HRM are presented.

Second, the tests for mediation are reported.

Testing Vertical Alignment with Organizational Culture.

An examination of a vertical alignment for an association of the organizational

culture types with firm performance and whether culture partially mediated the

relationship between HRM and firm performance was conducted. Hypothesis 2 tested

whether clan and adhocracy had a positive association with firm performance outcomes

and whether they partially mediated the relationship between HRM and firm

performance. At Step 3 for all three models, the HRM variable was positive and

significant ($p < .01$).

For Hypothesis 2, the clan culture variable was first tested to see whether there

was a positive association with firm performance (see Table 5). At Step 3 of Model 1a,

the clan culture explained an additional 9.4% of the variance ($\Delta R^2 = .094$, $\Delta F = 40.658$, p

$< .01$) and was significantly and positively associated with employee performance ($B =$

$.198$, $t = (6.38)$). The full model accounted for 35.6% of the variance in employee

performance ($R^2 = .356$, $F = 5.952$, $p < .01$). For operational performance at Step 3 of

Model 2a, the clan culture explained an additional 1.4% of the variance ($\Delta R^2 = .014$, ΔF

$= 4.888$, $p < .05$) and was also significant and positively associated with operational

performance ($B = .075$, $t = (2.21)$). This total model explained 21.2% of the variance in

operational performance ($R^2 = .212$, $F = 2.896$, $p < .01$). The clan culture was not found

to have a significant association with financial performance.

The adhocracy culture was next tested to see whether there was a positive relationship with firm performance (see Table 6). For employee performance (Model 1b) at Step 3, the adhocracy culture explained an additional 1.1% of the variance ($\Delta R^2 = .011$, $\Delta F = 4.428$, $p < .05$) and was positively and significantly associated with employee performance ($B = .095$, $t = (2.10)$). The total model explained 27.4% of the variance ($R^2 = .274$, $F = 4.063$, $p < .01$). At Step 3 of Model 2b for operational performance, adhocracy accounted for an additional 1.2% of the variability ($\Delta R^2 = .012$, $\Delta F = 4.329$, $p < .01$) and was again positively and significantly related to operational performance ($B = .097$, $t = (2.07)$), with the total model explaining 21% of the variance ($R^2 = .210$, $F = 2.869$, $p < .01$). Finally, adhocracy was tested with financial performance (Model 3b). At Step 3, adhocracy accounted for an additional 7.2% of the variability ($\Delta R^2 = .072$, $\Delta F = 29.305$, $p < .01$) and was significantly and positively related to financial performance ($B = .275$, $t = (5.41)$). This total model explained 31.6% of the variance ($R^2 = .316$, $F = 4.984$, $p < .01$).

Both the clan and adhocracy culture variables were next tested for mediating the relationship between HRM and each of the three firm performance outcomes. Following Barron and Kenny (1986; 2008), the four-step tests of mediation were conducted. Step one of the test requires an examination of the relationship between the initial variable (HRM) and firm performance. As noted earlier in Step 2 of the regression models (see Table 4), the relationship between HRM and the firm performance outcomes were significant ($p < .01$). The second step involves examining whether the initial variable (HRM) is correlated with the mediator variable of clan and adhocracy cultures. Separate regression analyses were conducted with the control variables at Step 1 and HRM at Step 2, with clan and adhocracy as the dependent variables. At step two a significant

relationship was found with clan only as the dependent variable ($B = .464$, $t = (4.18)$, $p < .01$). As a result, step three was conducted. Step 3 is conducted to establish whether the relationship is partially or fully mediated by first examining the relationship between the mediator (clan) and the firm performance outcomes and then calculating the regression weight unstandardized beta coefficients and standardized errors from steps 2 and 3 using a Sobel test (Kenny, 2008). At step 3, employee performance ($p < .01$) and operational performance ($p < .05$) were both significant (see Table 5) and Sobel tests of mediation were significant at $p < .01$, showing that the clan culture partially mediates the relationship between HRM and employee performance, and HRM and operational performance.

In summary, partial support was found for Hypothesis 2. Positive associations with clan and adhocracy were found, with the exception of an association of clan with financial performance. Partial mediation was found only for clan between HRM and employee performance, and HRM and operational performance.

Hypothesis 3 addressed whether market and hierarchy cultures had a negative association with firm performance. In addition, tests to examine whether market and hierarchy cultures partially mediated the relationship between HRM and firm performance were conducted. At Step 3 of all models for market and hierarchy, HRM was significantly ($p < .01$) and positively associated with all firm performance outcomes (see Table 7 and 8).

The market culture variable was first tested with employee performance (Model 1c) and at Step 3 market accounted for an additional 9.3% of the variability ($\Delta R^2 = .093$, $\Delta F = 40.445$, $p < .01$) and was significantly and negatively associated with employee

performance ($B = -.202$, $t= (-6.36)$). The total model explained 35.5% of the variance ($R^2 = .355$, $F = 5.941$, $p < .01$). Market was next tested with operational performance (Model 2c) and at Step 3 market accounted for an additional 4.1% of the variability ($\Delta R^2 = .041$, $\Delta F = 15.080$, $p < .01$) and was significantly and positively associated with operational performance ($B = -.133$, $t= (-3.88)$), with the total model explaining 23.9% of the variance ($R^2 = .239$, $F = 3.384$, $p < .01$). Finally, market was tested with financial performance (Model 3c) and the relationship was negative but not significantly associated.

With employee performance (Model 1d) at Step 3, hierarchy accounted for an additional 1.2% of the variability ($\Delta R^2 = .012$, $\Delta F = 4.499$, $p < .05$) and was found to be significantly and negatively association with employee performance ($B = -.088$, $t= (-2.12)$). The total model explained 27.4% of the variance ($R^2 = .274$, $F = 4.067$, $p < .01$). However, the hierarchy culture was not found to be significantly associated with operational performance. In the financial performance model (Model 3d) at Step 3, hierarchy culture accounted for an additional 2.9% of the variability ($\Delta R^2 = .029$, $\Delta F = 11.223$, $p < .01$) and was negatively and significantly associated with financial performance ($B = -.161$, $t= (-3.35)$). This total model explained 27.3% of the variance ($R^2 = .273$, $F = 4.063$, $p < .01$).

Market and hierarchy culture types were also examined for mediating the relationship between HRM and each type of firm performance. Barron and Kenny's (1986; 2008) four-step tests were conducted. In step 2, only market was significant for all firm performance outcomes ($B = -.394$, $t= (-3.63)$, $p < .01$). Next, steps three and four of the four-step test for partial or full meditation were conducted by first examining the

relationship between the mediator (market) and the outcome variables (all three firm performance outcomes). The Sobel test of mediation was significant at $p < .01$ for both employee performance and operational performance.

In summary, partial support was found for Hypotheses 3. The results showed that all relationships with firm performance were negative, with the exception of hierarchy and operational performance which was positive. Although HRM remained significant at Step 3, its effect was reduced at Step 3 (more in the market models than the hierarchy models). Partial meditation was only found for market culture mediating the relationship between HRM and employee performance, and HRM and operational performance.

Table 4: *Results of the Regression Analyses for HRM.*

Variables	Model 1 Employee Performance		Model 2 Operations Performance		Model 3 Financial Performance	
	B	SE	B	SE	B	SE
Step 1						
Constant	3.305**	(.226)	3.447**	(.231)	2.663**	(.265)
Controls						
Size (Natural Logarithm)	-.068**	(.027)	-.035	(.027)	.032	(.031)
Age (Natural Logarithm)	.140**	(.046)	.144**	(.047)	.142**	(.054)
Location - Rural	-.105	(.105)	.069	(.108)	-.008	(.124)
Ownership – U.S.	.012	(.091)	.109	(.093)	.015	(.107)
Ownership – Other	.007	(.180)	.323	(.184)	.155	(.211)
Application – Outbound	-.067	(.160)	.131	(.164)	.058	(.188)
Application - Combination	.037	(.080)	.114	(.082)	.167	(.094)
Type – Outsourced	-.142	(.095)	-.053	(.097)	-.166	(.111)
Type – Both (outsourced/in-house)	.140	(.121)	.099	(.123)	-.053	(.141)
Region – Western	.125	(.084)	-.004	(.086)	.214*	(.099)
Region – Atlantic	.098	(.094)	.220*	(.096)	.136	(.110)
Union – Yes	-.281**	(.102)	-.169	(.104)	-.143	(.119)
Customer Service	-.062	(.107)	-.041	(.109)	.028	(.125)
Sales	.203**	(.081)	.025	(.083)	.156	(.095)
Technical Help Desk	-.008	(.083)	-.040	(.085)	.051	(.098)
Industry						
Energy	-.265	(.158)	-.160	(.162)	.135	(.186)
Financial Services	.125	(.098)	.199*	(.101)	.179	(.115)
Government	.049	(.118)	-.024	(.121)	-.493**	(.139)
Health	.288	(.160)	.193	(.164)	.183	(.188)
Manufacturing	.023	(.146)	.030	(.150)	.040	(.172)
Retail	.034	(.124)	.182	(.127)	.183	(.145)
Telecommunications	-.116	(.092)	.058	(.095)	.060	(.108)
Tourism	.108	(.148)	.047	(.152)	.200	(.174)
Transportation	-.013	(.166)	-.060	(.169)	-.094	(.194)

Model Summary:

R^2 (Controls)	.187	.127	.169
F (Total Model after Step 1)	2.703**	1.715*	2.396**

Note: Unstandardized beta coefficients and standard errors are reported.

$*p < .05$ $**p < .01$

Listwise $n = 307$

Table 4: *Results of the Regression Analyses for HRM (Continued).*

Variables	Model 1 Employee Performance		Model 2 Operations Performance		Model 3 Financial Performance	
	B	SE	B	SE	B	SE
Step 2						
Constant	2.219**	(.296)	2.408**	(.305)	1.402**	(.348)
Controls						
Size (Natural Logarithm)	-.072**	(.025)	-.038	(.026)	.027	(.030)
Age (Natural Logarithm)	.093*	(.045)	.099*	(.046)	.087	(.052)
Location - Rural	-.107	(.101)	.067	(.104)	-.010	(.118)
Ownership – U.S.	-.023	(.087)	.076	(.090)	-.025	(.102)
Ownership – Other	-.121	(.173)	.201	(.179)	-.007	(.204)
Application – Outbound	-.036	(.153)	.160	(.158)	.094	(.180)
Application - Combination	.028	(.076)	.105	(.078)	.156	(.089)
Type – Outsourced	-.055	(.092)	.031	(.095)	-.064	(.108)
Type – Both (outsourced/in-house)	.156	(.115)	.114	(.118)	-.035	(.135)
Region – Western	.084	(.081)	-.044	(.083)	.166	(.095)
Region – Atlantic	.062	(.090)	.185*	(.093)	.094	(.106)
Union – Yes	-.228*	(.098)	-.118	(.100)	-.081	(.115)
Customer Service	-.049	(.102)	-.029	(.105)	.043	(.120)
Sales	.173	(.077)	-.004	(.080)	.121	(.091)
Technical Help Desk	-.049	(.080)	-.079	(.082)	.003	(.094)
Industry						
Energy	-.264	(.151)	-.159	(.156)	.136	(.178)
Financial Services	.075	(.094)	.151	(.097)	.121	(.111)
Government	.092	(.113)	.017	(.116)	-.443**	(.133)
Health	.172	(.154)	.082	(.159)	.050	(.181)
Manufacturing	.026	(.140)	.033	(.144)	.044	(.164)
Retail	.049	(.118)	.196	(.122)	.200	(.139)
Telecommunications	-.147	(.088)	.028	(.091)	.024	(.104)
Tourism	.071	(.142)	.012	(.146)	.157	(.166)
Transportation	.033	(.158)	-.016	(.163)	-.041	(.186)
HRM (HR Bundle 3)	.331**	(.062)	.317**	(.064)	.385**	(.073)
Model Summary:						
R^2 (Controls)	.187		.127		.169	
ΔR^2 (HRM)	.075		.071		.075	
R^2 (Total Model after Step 2)	.262		.198		.246	
F (Total Model after Step 2)	4.000**		2.777**		3.644**	

Note: Unstandardized beta coefficients and standard errors are reported.
     $*p < .05$ $**p < .01$
     Listwise $n = 307$

Table 5: *Results of the Regression Analyses for HRM and Clan.*

Variables	Model 1a Employee Performance		Model 2a Operations Performance		Model 3a Financial Performance	
	B	SE	B	SE	B	SE
Step 2						
HRM (HR Bundle 3)	.331**	(.062)	.317**	(.064)	.385**	(.073)
Step 3						
Constant	1.936**	(.281)	2.300**	(.311)	1.432**	(.353)
Controls						
Size (Natural Logarithm)	-.056*	(.024)	-.032	(.026)	.025	(.030)
Age (Natural Logarithm)	.080	(.042)	.094*	(.046)	.088	(.053)
Location - Rural	-.150	(.094)	.051	(.103)	-.006	(.119)
Ownership – U.S.	.010	(.082)	.088	(.089)	-.028	(.102)
Ownership – Other	-.138	(.162)	.195	(.177)	.009	(.204)
Application – Outbound	.001	(.143)	.174	(.157)	.090	(.180)
Application - Combination	.059	(.071)	.117	(.078)	.153	(.090)
Type – Outsourced	-.055	(.086)	.031	(.094)	-.064	(.108)
Type – Both (outsourced/in-house)	.126	(.108)	.103	(.118)	-.032	(.135)
Region – Western	.046	(.076)	-.058	(.083)	.170	(.095)
Region – Atlantic	-.016	(.085)	.155	(.093)	.102	(.107)
Union – Yes	-.163	(.092)	-.093	(.100)	-.087	(.115)
Customer Service	-.062	(.095)	-.034	(.104)	.044	(.120)
Sales	.177*	(.073)	-.002	(.079)	.121	(.091)
Technical Help Desk	-.017	(.075)	-.054	(.082)	-.004	(.095)
Industry						
Energy	-.259	(.141)	-.157	(.155)	.135	(.178)
Financial Services	.104	(.088)	.162	(.097)	.118	(.111)
Government	.071	(.106)	.009	(.116)	-.441**	(.133)
Health	.035	(.146)	.030	(.160)	.064	(.184)
Manufacturing	.049	(.131)	.042	(.143)	.042	(.164)
Retail	.038	(.111)	.192	(.121)	.202	(.139)
Telecommunications	-.114	(.083)	.041	(.091)	.020	(.104)
Tourism	.067	(.133)	.010	(.145)	.157	(.167)
Transportation	.106	(.149)	.012	(.162)	-.049	(.187)
HRM (HR Bundle 3)	.239**	(.060)	.282**	(.065)	.394**	(.075)
Clan	.198**	(.031)	.075*	(.034)	-.021	(.039)
R^2 (Controls)	.187		.127		.169	
ΔR^2 (HRM)	.075		.071		.075	
ΔR^2 (Clan)	.094		.014		.001	
R^2 (Total Model)	.356		.212		.245	
F (Total Model)	5.952**		2.896**		3.505**	

Note: Unstandardized beta coefficients and standard errors are reported.
*$p < .05$ **$p < .01$
Listwise $n = 307$

Table 6: *Results of the Regression Analyses for HRM and Adhocracy.*

Variables	Model 1b Employee Performance		Model 2b Operations Performance		Model 3b Financial Performance	
	B	SE	B	SE	B	SE
Step 2						
HRM (HR Bundle 3)	.331**	(.062)	.317**	(.064)	.385**	(.073)
Step 3						
Constant	2.005**	(.311)	2.189**	(.321)	.781*	(.351)
Controls						
Size (Natural Logarithm)	-.071**	(.025)	-.037	(.026)	.031	(.028)
Age (Natural Logarithm)	.098*	(.044)	.104*	(.046)	.101*	(.050)
Location - Rural	-.096	(.100)	.078	(.103)	.023	(.113)
Ownership – U.S.	-.012	(.087)	.086	(.089)	.005	(.098)
Ownership – Other	-.113	(.172)	.209	(.178)	.029	(.194)
Application – Outbound	-.003	(.153)	.194	(.157)	.190	(.172)
Application - Combination	.039	(.076)	.116	(.078)	.187*	(.085)
Type – Outsourced	-.050	(.091)	.036	(.094)	-.051	(.103)
Type – Both (outsourced/in-house)	.143	(.114)	.101	(.118)	-.073	(.129)
Region – Western	.078	(.080)	-.050	(.083)	.150	(.091)
Region – Atlantic	.081	(.090)	.205*	(.092)	.151	(.101)
Union – Yes	-.227*	(.097)	-.117	(.100)	-.080	(.109)
Customer Service	-.049	(.101)	-.029	(.104)	.043	(.114)
Sales	.145	(.078)	-.032	(.080)	.040	(.088)
Technical Help Desk	-.063	(.079)	-.106	(.093)	-.035	(.090)
Industry						
Energy	-.268	(.150)	-.163	(.155)	.124	(.169)
Financial Services	.071	(.094)	.147	(.097)	.110	(.106)
Government	.129	(.114)	.055	(.117)	-.335**	(.128)
Health	.187	(.153)	.097	(.158)	.092	(.173)
Manufacturing	.018	(.139)	.024	(.143)	.020	(.156)
Retail	.057	(.117)	.204	(.121)	.221	(.132)
Telecommunications	-.138	(.088)	.038	(.091)	.052	(.099)
Tourism	.081	(.141)	.022	(.145)	.186	(.159)
Transportation	.040	(.157)	-.008	(.162)	-.019	(.177)
HRM (HR Bundle 3)	.332**	(.061)	.318**	(.063)	.387**	(.069)
Adhocracy	.095*	(.045)	.097*	(.047)	.275**	(.051)
R^2 (Controls)	.187		.127		.169	
ΔR^2 (HRM)	.075		.071		.075	
ΔR^2 (Adhocracy)	.011		.012		.072	
R^2 (Total Model)	.274		.210		.316	
F (Total Model)	4.063**		2.869**		4.984**	

Note: Unstandardized beta coefficients and standard errors are reported.
*$p < .05$ **$p < .01$
Listwise $n = 307$

Table 7: *Results of the Regression Analyses for HRM and Market.*

	Model 1c Employee Performance		Model 2c Operations Performance		Model 3c Financial Performance	
Variables	B	SE	B	SE	B	SE
Step 2						
HRM (HR Bundle 3)	.331**	(.062)	.317**	(.064)	.385**	(.073)
Step 3						
Constant	2.958**	(.300)	2.892**	(.323)	1.492**	(.377)
Controls						
Size (Natural Logarithm)	-.049*	(.024)	-.023	(.026)	.030	(.030)
Age (Natural Logarithm)	.092*	(.042)	.099*	(.045)	.087	(.053)
Location - Rural	-.130	(.094)	.052	(.101)	-.013	(.118)
Ownership – U.S.	.034	(.082)	.113	(.088)	-.018	(.103)
Ownership – Other	-.082	(.162)	.227	(.174)	.012	(.204)
Application – Outbound	.058	(.144)	.222	(.155)	.106	(.181)
Application - Combination	.035	(.071)	.110	(.077)	.157	(.090)
Type – Outsourced	-.031	(.086)	.047	(.092)	-.062	(.108)
Type – Both (outsourced/in-house)	.150	(.108)	.110	(.116)	-.036	(.135)
Region – Western	.074	(.076)	-.050	(.081)	.165	(.095)
Region – Atlantic	.038	(.084)	.169	(.090)	.091	(.106)
Union – Yes	-.205*	(.091)	-.103	(.098)	-.078	(.115)
Customer Service	-.082	(.095)	-.050	(.102)	.039	(.120)
Sales	.159*	(.073)	-.013	(.078)	.120	(.091)
Technical Help Desk	-.020	(.075)	-.060	(.080)	.007	(.094)
Industry						
Energy	-.278*	(.142)	-.168	(.152)	.134	(.178)
Financial Services	.143	(.089)	.196*	(.095)	.130	(.112)
Government	-.020	(.107)	-.056	(.115)	-.457**	(.135)
Health	.095	(.145)	.032	(.156)	.040	(.182)
Manufacturing	.073	(.131)	.064	(.141)	.050	(.165)
Retail	.034	(.111)	.187	(.119)	.199	(.139)
Telecommunications	-.092	(.083)	.065	(.089)	.031	(.105)
Tourism	.052	(.133)	.000	(.142)	.155	(.167)
Transportation	.046	(.148)	-.007	(.159)	-.039	(.186)
HRM (HR Bundle 3)	.252**	(.059)	.265**	(.064)	.375**	(.074)
Market	-.202**	(.032)	-.133**	(.034)	-.025	(.040)
R^2 (Controls)	.187		.127		.169	
ΔR^2 (HRM)	.075		.071		.075	
ΔR^2 (Market)	.093		.041		.001	
R^2 (Total Model)	.355		.239		.245	
F (Total Model)	5.941**		3.384**		3.511**	

Note: Unstandardized beta coefficients and standard errors are reported.
$*p < .05$ $**p < .01$
Listwise $n = 307$

Table 8: *Results of the Regression Analyses for HRM and Hierarchy.*

Variables	Model 1d Employee Performance		Model 2d Operations Performance		Model 3d Financial Performance	
	B	SE	B	SE	B	SE
Step 2						
HRM (HR Bundle 3)	.331**	(.062)	.317**	(.064)	.385**	(.073)
Step 3						
Constant	2.452**	(.314)	2.408**	(.326)	1.829**	(.365)
Controls						
Size (Natural Logarithm)	-.074**	(.025)	-.038	(.026)	.024	(.029)
Age (Natural Logarithm)	.092*	(.044)	.099*	(.046)	.085	(.052)
Location - Rural	-.106	(.100)	.067	(.104)	-.007	(.116)
Ownership – U.S.	-.023	(.086)	.076	(.090)	-.026	(.100)
Ownership – Other	-.138	(.172)	.201	(.179)	-.025	(.200)
Application – Outbound	-.030	(.152)	.160	(.158)	.105	(.177)
Application - Combination	.049	(.076)	.105	(.079)	.194*	(.089)
Type – Outsourced	-.061	(.091)	.031	(.095)	-.076	(.106)
Type – Both (outsourced/in-house)	.133	(.115)	.114	(.119)	-.076	(.133)
Region – Western	.066	(.081)	-.044	(.084)	.134	(.094)
Region – Atlantic	.056	(.089)	.185*	(.093)	.083	(.104)
Union – Yes	-.209*	(.097)	-.118	(.101)	-.046	(.113)
Customer Service	-.040	(.101)	-.029	(.105)	.059	(.118)
Sales	.155*	(.077)	-.004	(.080)	.088	(.090)
Technical Help Desk	-.045	(.079)	-.079	(.082)	.012	(.092)
Industry						
Energy	-.259	(.150)	-.159	(.156)	.145	(.174)
Financial Services	.055	(.094)	.151	(.098)	.084	(.109)
Government	.166	(.118)	.017	(.122)	-.308*	(.137)
Health	.159	(.153)	.082	(.159)	.024	(.178)
Manufacturing	.008	(.139)	.033	(.144)	.011	(.161)
Retail	.057	(.117)	.196	(.122)	.215	(.136)
Telecommunications	-.147	(.088)	.028	(.091)	.023	(.102)
Tourism	.087	(.141)	.012	(.146)	.185	(.164)
Transportation	.066	(.158)	-.016	(.164)	.021	(.184)
HRM (HR Bundle 3)	.326**	(.061)	.317**	(.064)	.374**	(.071)
Hierarchy	-.088*	(.041)	.000	(.043)	-.161**	(.048)
R^2 (Controls)	.187		.127		.169	
ΔR^2 (HRM)	.075		.071		.075	
ΔR^2 (Hierarchy)	.012		.000		.029	
R^2 (Total Model)	.274		.198		.273	
F (Total Model)	4.067**		2.661**		4.063**	

Note: Unstandardized beta coefficients and standard errors are reported.
$*p < .05$ $**p < .01$
Listwise $n = 307$

Testing Vertical Alignment with Business Strategy.

Hypothesis 4 addressed whether the differentiation business strategy had a positive association with firm performance, as well as whether it partially mediated the relationship between HRM and firm performance. These analyses were run separately for each of the three firm performance outcomes as the dependent variable (see Table 9). HRM remained significant at Step 3 for all three models, employee ($p < .01$), operational ($p < .01$) and financial ($p < .01$) performance.

The differentiation business strategy was not found to be significantly associated with either employee performance (Model 1e) or operational performance (Model 2e). However in Model 3e, the differentiation business strategy explained an additional 4.8% of the variance ($\Delta R^2 = .048$, $\Delta F = 28.078$, $p < .01$) and was significantly and positively associated with financial performance ($B = .269$, $t = (4.37)$). The full model explained 29.2% of the variability in financial performance ($R^2 = .292$, $F = 4.464$, $p < .01$).

The four-step test for establishing mediation was conducted. The result for the first step remains the same as from the previous test (HRM and firm performance). Step two found a significant relationship with the differentiation business strategy as the dependent variable ($B = .538$, $t = (7.90)$, $p < .01$). Step 3 was significant (see Table 9) and the Sobel test was significant for financial performance ($p < .01$).

In summary, partial support was found for Hypothesis 4. The differentiation business strategy had a positive association with all three firm performance measures and was found to partially mediate the relationship between HRM and financial performance.

Table 9: *Results of the Regression Analyses for HRM and Differentiation.*

Variables	Model 1e Employee Performance B	SE	Model 2e Operations Performance B	SE	Model 3e Financial Performance B	SE
Step 2						
HRM (HR Bundle 3)	.331**	(.062)	.317**	(.064)	.385**	(.073)
Step 3						
Constant	2.019**	(.314)	2.280**	(.325)	.859*	(.359)
Controls						
Size (Natural Logarithm)	-.070**	(.025)	-.037	(.026)	.034	(.029)
Age (Natural Logarithm)	.093*	(.044)	.100*	(.046)	.089	(.051)
Location - Rural	-.084	(.101)	.082	(.104)	.054	(.116)
Ownership – U.S.	-.021	(.087)	.077	(.090)	-.020	(.099)
Ownership – Other	-.112	(.173)	.207	(.179)	.030	(.198)
Application – Outbound	-.022	(.152)	.170	(.158)	.133	(.174)
Application - Combination	.036	(.076)	.110	(.079)	.177*	(.087)
Type – Outsourced	-.049	(.091)	.035	(.095)	-.050	(.105)
Type – Both (outsourced/in-house)	.138	(.115)	.103	(.119)	-.082	(.131)
Region – Western	.108	(.082)	-.029	(.084)	.232**	(.093)
Region – Atlantic	.073	(.090)	.192*	(.093)	.123	(.103)
Union – Yes	-.225*	(.097)	-.116	(.100)	-.073	(.111)
Customer Service	-.047	(.101)	-.028	(.105)	.048	(.116)
Sales	.159*	(.077)	-.013	(.080)	.084	(.089)
Technical Help Desk	-.059	(.080)	-.086	(.082)	-.023	(.091)
Industry						
Energy	-.278	(.151)	-.168	(.156)	.098	(.172)
Financial Services	.074	(.094)	.150	(.097)	.117	(.107)
Government	.144	(.116)	.050	(.120)	-.303*	(.133)
Health	.162	(.154)	.076	(.159)	.021	(.176)
Manufacturing	.010	(.139)	.023	(.144)	.001	(.159)
Retail	.039	(.118)	.190	(.122)	.173	(.135)
Telecommunications	-.168	(.089)	.015	(.092)	-.032	(.101)
Tourism	.039	(.142)	-.008	(.147)	.071	(.162)
Transportation	.031	(.158)	-.017	(.163)	-.045	(.180)
HRM (HR Bundle 3)	.278**	(.068)	.283**	(.070)	.240**	(.078)
Differentiation	.099	(.054)	.063	(.056)	.269**	(.062)
R^2 (Controls)	.187		.127		.169	
ΔR^2 (HRM)	.075		.071		.075	
ΔR^2 (Differentiation)	.009		.004		.048	
R^2 (Total Model)	.271		.202		.292	
F (Total Model)	4.009**		2.723**		4.464**	

Note: Unstandardized beta coefficients and standard errors are reported.
$*p < .05$ $**p < .01$
Listwise $n = 307$

Although I did not hypothesize about the cost business strategy, regression analyses were conducted to further examine the relationship of cost with firm performance. In past studies, some evidence has been found to suggest that the cost strategy has a negative association with some firm performance outcomes and a positive association with others (Guthrie et al., 2002; Hoque, 1999; Michie & Sheehan, 2005). Supplemental analyses examining the cost business strategy with the three firm performance outcomes are presented in Appendix J. At Step 3 of all three models, HRM remained significant at $p < .01$. For Model 1f, cost explained an additional 1.6% of the variance ($\Delta R^2 = .016$, $F = 6.036$, $p < .05$) and was significant and negatively associated with employee performance ($B = -.096$, $t = (-2.46)$). However, the cost business strategy was not found to be significantly associated with either operational or financial performance. Overall, the cost business strategy was found to have a negative association with employee performance and a positive association with both operational and financial performance. However, cost was only significantly related to employee performance.

Examining Intermediate Linkages.

Intermediate linkages were examined (Hypothesis 5) using hierarchical linear regression. Financial performance was entered into the model as the dependent variable and employee and operational performance were entered as two additional independent variables. At Step 1 of the model, the control variables were entered and at Step 2 the HRM variable was added. At Step 3, the model was run separately with the addition of each of the four culture types and the differentiation business strategy type. The firm performance outcomes were next entered into the regression models, with employee performance at Step 4 and operational performance at Step 5.

The summary R^2 and ΔR^2 results are provided for each step in the models in Table 10. At Step 2 of all models, HRM explained 7.5% of the variance ($\Delta R^2 = .075$, $\Delta F = 28.078$, $p < .01$) and was significant. HRM remained significant ($p < .01$) for all steps of each model, with the exception of Step 5 for the model with the differentiation business strategy. At Step 3 of all models, only the adhocracy culture ($\Delta R^2 = .072$, $\Delta F = 29.305$, $p < .01$), hierarchy culture ($\Delta R^2 = .029$, $\Delta F = 11.223$, $p < .01$) and differentiation business strategy ($\Delta R^2 = .048$, $\Delta F = 19.101$, $p < .01$) were significant. Employee performance when entered at Step 4 was significant ($p < .01$) in all models. The same three variables from Step 3 remained significant ($p < .01$) at Steps 4 and 5. At Step 5, operational performance when entered was significant ($p < .01$) in all models. For the adhocracy culture, hierarchy culture and the differentiation business strategy models at step 5, employee performance was not significant. However, the clan culture ($p < .01$) and market culture ($p < .05$) at Step 5 reached significance along with employee performance ($p < .01$).

Table 10: *Intermediate Linkages with Financial Performance*

Variables	Step 1 Controls R^2	Step 2 HRM ΔR^2	Step 3 Model ΔR^2	Step 4 Emp P ΔR^2	Step 5 Ops P ΔR^2	Total Model R^2
Model						
a) Clan	.169**	.075** (+)	.001 (-)	.070** (+)	.111** (+)	.409
b) Adhocracy	.169**	.075** (+)	.072** (+)	.042** (+)	.099** (+)	.457
c) Market	.169**	.075** (+)	.001 (-)	.058** (+)	.117** (+)	.421
d) Hierarchy	.169**	.075** (+)	.029** (-)	.047** (+)	.116** (+)	.436
e) Differentiation	.169**	.075** (+)	.048** (+)	.046** (+)	.107** (+)	.445

Note: Significance reported for the variable at that Step of the model.
(+) or (-) is the direction of the association of the variable at that step of the model.
*p<.05. **p<.01
Listwise $n = 307$

Partial support was found for Hypothesis 5 for intermediate linkages affecting firm performance. Of the organizational culture and business strategy independent

variables tested, only three were significant. These findings suggest that the culture types of adhocracy and hierarchy have a direct association with firm performance and that the clan and market culture types have an indirect association with financial performance by the association each has with employee performance and operational performance.

Discussion

In Study 1, there were five hypotheses tested and full support was found for one and partial support for four. Consistent with past research (i.e. Huselid, 1995; Michie & Sheehan, 2005), HRM was found to be significantly and positively associated with all three firm performance outcomes (Hypothesis 1). In addition, a series of regression models were run to also examine hypotheses relating to vertical alignment (see Table 11). These models included vertical alignment with the four culture types as well as the differentiation business strategy type.

Table 11: *Summary of Regression Models.*

	Employee Performance Model 1				Operational Performance Model 2				Financial Performance Model 3			
	At Step		Total Model		At Step		Total Model		At Step		Total Model	
	ΔR^2	ΔF	R^2	F	ΔR^2	ΔF	R^2	F	ΔR^2	ΔF	R^2	F
Step 1*	.187	2.70	.187	2.70	.127	1.72	.127	1.72	.169	2.40	.169	2.40
Step 2	.075	28.75	.262	4.00	.071	24.81	.198	2.78	.075	28.08	.245	3.64
Step 3												
Clan (a)	.094	40.66	.356	5.95	.014	4.89	.212	2.90	.001	.28	.245	3.51
Adhocracy (b)	.011	4.43	.274	4.06	.012	4.33	.210	2.87	.072	29.31	.316	4.98
Market (c)	.093	40.45	.355	5.94	.041	15.08	.239	3.38	.001	.38	.245	3.51
Hierarchy (d)	.012	4.50	.274	4.05	.000	0.00	.198	2.66	.029	11.22	.273	4.06
Differentiation (e)	.009	3.38	.271	4.01	.004	1.23	.202	2.72	.048	28.08	.292	4.46
Cost (f)	.016	6.04	.278	4.15	.002	.86	.201	2.70	.001	.29	.246	3.51

Note: * Step 1 reports R^2 and F.

Two hypotheses tested all of the culture types for either positive or negative associations with firm performance and for partially mediating the relationship between

HRM and firm performance. A test of Hypothesis 2 found support for a positive association of the clan and adhocracy cultures with all three firm performance outcomes. However, only the clan culture was found to partially mediate the relationship between HRM and employee performance and HRM and operational performance. No support was found for partial mediation with financial performance. However, overall partial support was found for Hypothesis 2. The results from this study were consistent with other studies that found positive associations with clan and adhocracy culture types in relation to employee performance (Goodman et al., 2001; Sheridan, 1992) and operational performance (Boggs, 2004; Prajogo & McDermott, 2005). Although previous studies have not considered the association with either of these culture types with financial performance, this study shows a positive association between the two as well. Partial mediation was found with clan culture and two of the firm performance outcomes (employee performance and operational performance) but not with the adhocracy culture type. This finding may be a result of the type of environment examined in this study. For example, call centres are more systematic in design and approach to work (Holman, 2003a) and therefore may have lower scores on the adhocracy culture type. Similarly, a test of Hypothesis 3 found support for a negative association with market and hierarchy cultures but only market culture partially mediated the relationship between HRM and employee performance, and HRM and operational performance. Again, market culture was not found to either fully or partially mediate the relationship between HRM and financial performance. Overall, partial support was also found for Hypothesis 3.

Consistent with past research (Hoque, 1999; Michie & Sheehan, 2005), the differentiation business strategy was found to have a positive association with all three firm performance outcomes. However, partial meditation was found only between HRM and financial performance. Thus, only partial support was found for Hypothesis 4. This finding may be partially explained by the outcomes from testing Hypothesis 5. In Hypothesis 5, an examination of the relationship of intermediate linkages was conducted using separate models, entering the culture types and the differentiation business strategy type at Step 3. A test of the intermediate linkages showed partial support for Hypothesis 5. At Step 3 of the models, adhocracy (positive association) and hierarchy (negative association) cultures were both significantly associated with financial performance suggesting that each directly influence financial performance. However, clan (negative association) and market (negative association) cultures were not significantly related to financial performance at Step 3, which suggests an indirect influence on financial performance by the association each has with employee and operational performance. Overall, partial support was found for Hypothesis 5. These findings suggest that two culture types (clan and market), which partially mediate employee performance and operational performance, are indirectly related to financial performance, whereas the other two culture types (adhocracy and hierarchy), which did not partially mediate the relationship, are more directly related to financial performance.

Study 1 provided a broad view of the relationships among HRM, organizational culture and firm performance with manager level respondents from different call centres across Canada. However, SHRM research has been criticized for using manager level respondents in most research designs (Bowen & Ostroff, 2004). Thus, this study provides

insights at an organizational level about the SHRM relationships from a manager's perspective. Study 2 will address the limitations in Study 1 through an examination of two call centre sites, capturing both manager and employee responses, to determine if the findings from Study 1 are consistent with the findings in a field settings.

CHAPTER 5: STUDY 2 – FIELD STUDIES OF CALL CENTRE BUSINESS UNITS

Introduction

Study 2 was conducted to provide a deeper analysis of call centres by examining two call centre business units in Canada. The purpose of the study was twofold. First, the field studies focused on the central questions of this research about the relationships among HRM, organizational culture, business strategy and firm performance and were conducted to examine whether the findings at a single site level were consistent with the findings from the National Call Centre Study. Second, past research in SHRM has focused predominantly on manager respondents. The two field studies captured individual-level responses from both managers and employees within each of the business units to provide for an examination in differences between the two.

Method

Sampling Approach and Data Collection

A convenience sampling approach was used to select participants for the field studies for Study 2. Inclusion of the field study organization participants was limited to Atlantic Canada due to funding. However, Atlantic Canada hosts a large array of Canadian and U.S. call centre operations. In fact, according to Statistics Canada about 25 % of the call centre industry jobs in Canada are located in the Atlantic region (Perkins, 2005). Thus, the region has a rich call centre environment to draw on for research.

An electronic survey was administered to the two participating call centre sites. Customer service representative (CSR) employees were given time off line to complete

the survey if they so desired. They were also provided the option to complete the survey remotely by accessing it through a uniform resource locator (URL) address. Managerial employees were sent the survey electronically to their work email address and were able to complete the survey at their workstation or remotely by accessing the URL as well.

The two organizations participating in the field study were outsourcers, one of which was U.S owned (referred to as Company 1 or Co 1) and the other Canadian (referred to as Company 2 or Co 2). Due to the commitment to provide confidentiality, I am unable to disclose the names of the organizations involved in the study. Company 1 had 450 employees (both managers and CSRs) employed during the time the survey was administered. The response rate for the call centre was 68% overall and 62% for the business unit reported in this study. Company 2 had 356 employees employed during the time the survey was administered. The response rate for this call centre was 61% overall and 63% for the business unit reported in the study.

Measures

The measures in the two call centre site studies for human resource management, firm performance, business strategy and organizational culture were the same as used in the National Call Centre Survey (see Appendix K and Appendix L).

Dependent Variables.

Firm Performance. The dependent variable in this study was firm performance. Internal consistency was acceptable for Company 1 for employee performance (α= .89), operational performance (α= .83) and financial performance (α= .78), and for Company 2 for employee performance (α= .88), operational performance (α= .84) and financial performance (α= .85).

Independent Variables.

Human Resource Management. For each of the six Human Resource Management Practices (HRM) areas, internal consistency was acceptable for Company 1 for all scales, which included selection (α = .92), retention (α = .92), training (α = .95), job design (α = .91), employee voice (α = .95) and rewards and compensation (α = .83), and for Company 2, including selection (α=.89), retention (α= .86), training (α= .94), job design (α= .86), employee voice (α= .94) and rewards and compensation (α= .80).

Organizational Culture. Cameron and Quinn's (2006) Organizational Cultural Assessment Instrument (OCAI) was used by participants to measure organizational culture. The Cronbach's alphas for the four culture scales were acceptable for Company 1 for clan (α= .72), adhocracy (α= .70) and market (α= .82), with the exception of hierarchy (α= .40). Internal consistency was also acceptable for Company 2 for clan (α= .71), adhocracy (α= .71), market (α= .77) and hierarchy (α= .73).

Business Strategy. For Business Strategy, respondents were to indicate the degree of importance to the organization. The Cronbach's alphas were acceptable for differentiation for Company 1(α= .88) and Company 2 (α= .81), and for cost for Company 1 (α= .75) and Company 2 (α= .79).

Control Variables.

In my analysis, I controlled for a number of individual-level variables which is consistent with past call centre research (Batt, 2002; Batt et al., 2002). These control variables included the *age* of the participant (categories were 16 to 24, 25 to 29, 30 or older), *years of service* (1 year or less, 1 to 2 years, and 2 years or greater), *sex* (1=male,

0=female), *occupation* (1=manager, 0= CSR), *work status* (1=part-time; 0=full-time), and *previous call centre experience* (1 = no; 0 = yes).

Results

Descriptive Statistics - Company 1

Descriptive statistics, internal consistency values and intercorrelations for all Company 1 variables are provided in Table 12. Company 1 is a U.S. outsourcer and the business unit involved is located in Atlantic Canada. The nature of the service this business unit provides is technical help desk support with customer service.

The sample was comprised of 79% CSRs and 21% managers. Employees with full time employment status made up 85% of the respondents. Although research shows that call centre work is predominantly held by females (Statistics-Canada, 2005), the sample in this study was comprised of 70% males and 30% females. This distribution of sex is most likely due to the nature of work in this business unit that is heavily skewed towards technical support with an underlying customer service component. Over 65% of the managers were 25 years of age or older whereas just a little over 70% of the CSRs were 29 or younger. Of the CSRs in the business unit, 33% had previous call centre experience compared to 17% of the managers.

Descriptive Statistics - Company 2

Descriptive statistics, internal consistency values and intercorrelations for Company 2 variables are provided in Table 13. Company 2 is a Canadian outsourcer call centre operation with sites located across Canada. The business unit involved in this study is located in Atlantic Canada and provides customer service for a U.S. client with both U.S. and Canadian customers.

Eighty percent of the respondents were CSRs and 20% were managers. Company 2 had a high percentage of full time workers (87.5%). Overall, 63% of respondents were female and 37% male. Forty-five percent of respondents were between the age of 16 and 24 years, 27% between 25 and 29 and 28% were over 30 years of age. Fifty-four percent of the employees had less than one year of service, 32% had between one and two years and 14% had greater than two years. Managers had longer tenure with the company with close to 50% having service between 3 and 10 years. Over 50% of the CSRs had 6 months or less of service, with 33% having service between 1 and 2 years. Sixty-two percent of the employees working in this call centre business unit had previous call centre experience.

Testing HRM Hypotheses

Horizontal Alignment of HRM.

As with Study 1, Study 2 was designed to examine the same first five hypotheses using hierarchical linear regression (HLR). The horizontal alignment of the HR bundle of practices was first examined for Company 1 and 2. The difference among the three approaches to the HR bundle for both business units revealed minimal variability. However, for both business units the regression analyses revealed that the individual practices accounted for less of the variability in firm performance outcomes.

Table 12: *Descriptive Statistics for Study 2 – Co 1.*

Cronbach's Alphas, Means, Standard Deviations and Correlations for Variables

Variables	α	M	SD	1	2	3	4	5	6	7	8	9	10	11	12
1. Employee Perf	(.89)	2.84	.90												
2. Operations Perf	(.83)	3.57	.76												
3. Financial Perf	(.78)	3.43	.64												
4. Age (25 to 29)	--	.28	.45	-.02	.16*	.10									
5. Age (30 plus)		.25	.43	-.08	-.05	-.00	-.36**								
6. Service (1 to 2 yrs)	--	.21	.41	-.02	-.03	-.04	.01	.05							
7. Service (2 yrs plus)		.28	.45	-.22**	-.10	.04	.33**	.11	-.32**						
8. Sex (Male)	--	.70	.46	-.07	.02	.04	.15*	.01	.01	.18**					
9. Emp Status (PT)	--	.15	.35	.06	-.04	.01	-.18**	-.20**	-.04	-.14*	-.07				
10. Previous Exp. (No)	--	.70	.46	.07	-.03	.01	-.00	-.21**	-.03	-.04	-.24	.04			
11. Emp Type (Mgr)	--	.21	.41	.14*	.25**	.26**	.23**	-.09	-.01	.21**	.02	-.00	.14*		
12. HRM	(.97)	3.49	.57	.59**	.33**	.25**	.02	-.00	-.12	-.04	-.13*	.05	.02	.12	
13. Cost	(.75)	3.26	.90	.19**	.17*	.13*	.05	-.07	-.09	-.18**	-.12	.06	.03	.08	.31**
14. Differentiation	(.88)	3.90	.74	.46**	.38**	.32**	.08	.01	-.18**	-.02	-.22**	.05	.05	.14*	.71**
15. Clan	(.72)	2.51	.93	.51**	.29**	.23*	-.07	.02	-.04	-.28**	-.14*	.13*	.07	.04	.50**
16. Adhocracy	(.70)	1.83	.72	.43**	.18**	.21**	.06	-.10	-.04	-.19*	-.21**	.02	.08	.05	.36**
17. Market	(.82)	3.12	1.35	-.50**	-.24**	-.19**	.00	.02	.07	.29**	.22**	-.11	-.06	.03	-.46**
18. Hierarchy	(.40)	2.49	.70	-.15*	-.11	-.16*	.03	.04	-.04	.01	-.01	.02	-.07	-.17*	-.13*

Note: *p<.05. **p<.01.
Listwise *n* = 165

Means, Standard Deviations and Correlations for Variables

Variables	13	14	15	16	17
14. Differentiation	.42**				
15. Clan	.12	.42**			
16. Adhocracy	.18*	.38**	.27**		
17. Market	-.18*	-.47**	-.75**	-.62**	
18. Hierarchy	.01	-.03	-.17*	-.19*	-.30**

Table 13: *Descriptive Statistics for Study 2 – Co 2.*

Cronbach's Alphas, Means, Standard Deviations and Correlations for Variables

Variables	α	M	SD	1	2	3	4	5	6	7	8	9	10	11	12
1. Employee Perf	(.88)	3.17	.83												
2. Operations Perf	(.84)	3.88	.66												
3. Financial Perf	(.85)	3.63	.69												
4. Age (25 to 29)	--	.27	.44	-.13*	-.10	.04									
5. Age (30 plus)		.28	.45	-.26**	-.19**	-.10**	-.38**								
6. Service (1 to 2 yrs)	--	.32	.47	-.22**	-.16*	-.21**	-.01	.08							
7. Service (2yrs plus)		.14	.35	-.23**	-.30**	-.16*	.01	.29**	-.28**						
8. Sex (Male)	--	.38	.49	.08	-.06	-.09	.06	-.02	-.01	.02					
9. Emp Status (PT)	--	.13	.33	-.03	-.04	-.06	.01	-.12*	-.19**	.09	.03				
10. Previous Exp. (No)	--	.38	.47	-.01	.01	-.11	-.24**	.03	-.07	.22**	.05	.16*			
11. Emp Type (Mgr)	--	.20	.47	-.03	-.09	.02	.09	.22**	-.01	.49**	.03	-.15*	.08		
12. HRM	(.93)	3.48	.79	.60**	.54**	.50**	-.08	-.13*	-.11	-.18**	-.04	-.11	-.02	.02	
13. Cost	(.79)	3.50	.90	.10	-.00	.12	-.03	-.02	-.06	-.03	.15*	.00	-.06	-.10	.19**
14. Differentiation	(.81)	3.88	.59	.27**	.31**	.46**	-.14*	.16*	.03	-.06	-.11	-.24**	.04	.04	.46**
15. Clan	(.71)	2.65	.86	.48**	.34**	.37**	-.01	-.12*	-.05	-.16*	-.07	-.05	-.11	.09	.46**
16. Adhocracy	(.71)	1.93	.73	.13*	.06	.13*	-.01	.00	.08	-.09	-.14*	-.13*	-.11	.07	.15*
17. Market	(.77)	2.65	1.03	-.45**	-.31**	-.25**	-.04	.23**	.15*	.22**	.02	.02	-.04	-.02	-.44**
18. Hierarchy	(.73)	2.76	.96	-.04	-.01	-.16*	.06	-.13*	-.17**	-.02	.15*	.13*	.23**	-.11	-.05

Note: *p<.05. **p<.01
Listwise *n* = 176

Means, Standard Deviations and Correlations for Variables

Variables	13	14	15	16	17
14. Differentiation	.22**				
15. Clan	-.02	.29**			
16. Adhocracy	.03	.07	.28**		
17. Market	-.06	-.18*	-.67**	-.39**	
18. Hierarchy	.06	-.11	-.39**	-.60**	-.18*

For Company 1, the HR bundle of practices accounted for 31% of the variability for employee performance compared to the wide range among the individual practices (see Appendix M). For example, recruitment accounted for 20% of the variability in employee performance, whereas employee involvement accounted for 30%. Similarly, the HR bundle accounted for more of the variance for operational and financial performance, with the exception of employee involvement ($\Delta R^2 = .061$) for financial performance (compared to the HR bundle ($\Delta R^2 = .045$)).

The HR bundle also explained more of the variation for Company 2 (see Appendix N). The three HR bundle approaches revealed (25% for employee performance, 20% for operations performance and 14% for financial performance) that the HR bundle accounted for more of the variance than the individual practices alone. For Company 2, none of the individual HR practices explained more of the variance on any of the three firm performance outcomes than the HR bundle.

Overall, the HR bundle accounted for more of the variance in all three firm performance outcomes than the variance of the individual practices alone in both field studies, although HRM accounted for less of the variability in Company 2 ($R^2 = .226$) than in Company 1 ($R^2 = .299$). As with Study 1, this study used the HR factor bundle (referred to as HRM) to test all subsequent hypotheses.

Testing the Relationship between HRM and Firm Performance.

A relationship between HRM and firm performance was tested for Hypothesis 1. For both of the field studies, the regression analyses were run with each of the firm performance outcomes. The following describes Step 1 and 2 regression results for the employee, operational and financial performance models for each of the field studies.

These two steps remain the same for all three models for the testing of subsequent hypotheses in the study. As with Study 1, employee performance is represented in Model 1, operational performance - Model 2 and financial performance - Model 3. The control variables are shown in the tables for each of the models, for each of the steps. Overall, four of the six control variables were significant in the regression analyses at varying times, including employee age, years of service, sex and employee type.

Hypothesis 1 was first investigated with Company 1 (see Table 14). With employee performance (Model 1) at Step 2, HRM explained an additional 30.8% of the variance ($\Delta R^2 = .308$, $F = 80.928$, $p < .01$) and was significantly and positively associated with employee performance ($B = .584$, $t = (8.99)$). The model after Step 2 accounted for 40.9% of the variability ($R^2 = .409$, $F = 11.945$, $p < .01$). With operational performance (Model 2) at Step 2, HRM accounted for 7.8% of the variability ($\Delta R^2 = .078$, $\Delta F = 15.277$, $p < .01$) and was significant and positive ($B = .246$, $t = (3.91)$. The total model accounted for 21% ($R^2 = .210$, $F = 4.587$, $p < .01$). Next, I examined financial performance (Model 3) and at Step 2 HRM accounted for an additional 4.6% of the variance ($\Delta R^2 = .046$, $\Delta F = 8.141$, $p < .01$) and was significantly and positively associated with financial performance ($B = .160$, $t = (1.72)$). After Step 2, the total model accounted for 12.4% ($R^2 = .124$, $F = 2.528$, $p < .01$).

Table 14: *Results of the Regression Analyses for HRM, Co 1.*

Variables	Model 1 Employee Performance		Model 2 Operations Performance		Model 3 Financial Performance	
	B	SE	B	SE	B	SE
Step 1						
Constant	2.949**	(.198)	3.578**	(.163)	3.303**	(.142)
Controls						
Age (25 to 29 yrs)	-.078	(.190)	.330*	(.156)	.137	(.136)
Age (30 plus)	-.005	(.190)	.111	(.156)	.107	(.136)
Service (1 to 2 yrs)	-.264	(.183)	-.230	(.150)	-.104	(.131)
Service (2 yrs plus)	-.618**	(.184)	-.463**	(.150)	-.113	(.132)
Sex (Male)	-.043	(.152)	.041	(.125)	.054	(.110)
Employee Status (Part Time)	.032	(.207)	-.062	(.170)	.054	(.148)
Previous Call Centre Exp (No)	.043	(.156)	-.113	(.128)	-.024	(.112)
Employee Type (Manager)	.419*	(.176)	.517**	(.145)	.407**	(.127)
Step 2						
Constant	.832**	(.285)	2.688**	(.276)	2.723**	(.246)
Controls						
Age (25 to 29 yrs)	-.015	(.155)	.291*	(.150)	.111	(.134)
Age (30 plus)	-.093	(.155)	.074	(.150)	.083	(.134)
Service (1 to 2 yrs)	-.066	(.150)	-.146	(.146)	-.050	(.130)
Service (2 yrs plus)	-.480**	(.150)	-.405**	(.146)	-.075	(.130)
Sex (Male)	.093	(.125)	.098	(.121)	.091	(.108)
Employee Status (Part Time)	-.037	(.168)	-.092	(.163)	.035	(.145)
Previous Call Centre Exp (No)	.042	(.126)	-.114	(.122)	-.024	(.109)
Employee Type (Manager)	.245	(.145)	.443**	(.140)	.359**	(.125)
HRM (HR Bundle 3)	.584**	(.065)	.246**	(.063)	.160**	(.056)

Model Summary:

R^2 (Controls)	.101	.132	.078
ΔR^2 (HRM)	.308	.078	.046
R^2 (Total Model after Step 2)	.409	.210	.124
F (Total Model after Step 2)	11.945***	4.587***	2.528**

Note: Unstandardized beta coefficients and standard errors are reported.
$*p < .05$ $**p < .01$ Listwise $n = 165$

Hypothesis 1 was next investigated with Company 2 (see Table 15). For employee performance (Model 1) at Step 2, HRM accounted for an additional 22.2% of the variability ($\Delta R^2 = .222$, $\Delta F = 70.065$, $p < .01$) and was significantly and positively associated with employee performance ($B = .532$, $t = (8.37)$). The model after Step 2 accounted for 47.3% of the variance ($R^2 = .473$, $F = 16.571$, $p < .01$). For operational performance (Model 2) at Step 2, HRM accounted for an additional 17.6% of the

variability ($\Delta R^2 = .176$, $\Delta F = 46.742$, $p < .01$) and was significant and positive ($B = .377$, $t = (6.84)$), with the full model accounting for 37.7% of the variability in operational performance ($R^2 = .377$, $F = 11.132$, $p < .01$). Finally, financial performance (Model 3) for Company 2 was investigated. At Step 2, HRM accounted for an additional 17.7% of the variability ($\Delta R^2 = .177$, $\Delta F = 42.772$, $p < .01$) and was significantly and positively associated with financial performance ($B = .390$, $t = (6.54)$). The model after Step 2 accounted for 31.3% ($R^2 = .313$, $F = 8.400$, $p < .01$).

Table 15: *Results of the Regression Analyses for HRM, Co 2.*

Variables	Model 1 Employee Performance B	SE	Model 2 Operations Performance B	SE	Model 3 Financial Performance B	SE
Step 1						
Constant	3.638**	(.117)	4.204**	(.097)	3.898**	(.104)
Controls						
Age (25 to 29 yrs)	-.506**	(.145)	-.234*	(.120)	.020	(.128)
Age (30 plus)	-.565**	(.147)	-.226	(.121)	-.040	(.130)
Service (1 to 2 yrs)	-.521**	(.128)	-.377**	(.106)	-.443**	(.113)
Service (2 yrs plus)	-.728**	(.207)	-.765**	(.170)	-.599**	(.183)
Sex (Male)	.156	(.116)	-.068	(.095)	-.126	(.102)
Employee Status (Part Time)	-.164	(.178)	-.104	(.147)	-.110	(.157)
Previous Call Centre Exp (No)	-.045	(.124)	.064	(.102)	-.079	(.110)
Employee Type (Manager)	.411*	(.167)	.234	(.137)	.297*	(.148)
Step 2						
Constant	1.620**	(.261)	2.775**	(.226)	2.417**	(.245)
Controls						
Age (25 to 29 yrs)	-.365**	(.123)	-.134	(.107)	.124	(.116)
Age (30 plus)	-.427**	(.124)	-.128	(.108)	.061	(.117)
Service (1 to 2 yrs)	-.346**	(.110)	-.253**	(.095)	-.315**	(.103)
Service (2 yrs plus)	-.416*	(.178)	-.544**	(.154)	-.370*	(.167)
Sex (Male)	.179	(.097)	-.052	(.084)	-.110	(.091)
Employee Status (Part Time)	-.013	(.151)	.003	(.131)	.001	(.142)
Previous Call Centre Exp (No)	-.048	(.104)	.062	(.090)	-.081	(.098)
Employee Type (Manager)	.230	(.142)	.106	(.123)	.164	(.134)
HRM (HR Bundle 3)	.532**	(.064)	.377**	(.055)	.390**	(.060)

Model Summary:

R^2 (Controls)	.251		.201	.136
ΔR^2 (HRM)	.222		.176	.177
R^2 (Total Model)	.473		.377	.313
F (Total Model)	16.571**		11.132**	8.400**

Note: Unstandardized beta coefficients and standard errors are reported.
$*p < .05$ $**p < .01$ Listwise $n = 176$

In summary, Company 1 and 2 both showed support for Hypothesis 1. HRM was significantly and positively associated with all three firm performance outcome measures for both Company 1 and 2 at Step 2 of the models. These findings are consistent with the findings from Study 1.

Testing Vertical Alignment

Hypotheses 2, 3 and 4 addressed vertical alignment of culture types and business strategy with firm performance in Study 2. The numbering convention for the models for each company is the same as for Study 1. For the testing of these hypotheses, only Step 3 is reported in each of the tables with Step 2 for the HRM variable noted at the top of each table for ease of reference.

Testing Vertical Alignment with Organizational Culture.

As with Study 1, in Study 2 I tested for vertical alignment of organizational culture with firm performance and whether culture mediates the relationship between HRM and firm performance. For Hypothesis 2, I examined clan and adhocracy culture types for a positive association with all three performance outcomes and then tested whether clan and adhocracy mediated the relationship between HRM and firm performance.

Company 1 was first investigated with clan culture (see Table 16). At Step 3 for employee performance (Model 1a), clan accounted for an additional 3.7% of the variability in the model ($\Delta R^2 = .037$, $\Delta F = 10.345$, $p < .01$) and was significant ($B = .230$, $t = (3.22)$). However, clan culture was not found to be significantly associated with either operational performance (Model 2a) or financial performance (Model 3a) for Company 1.

Table 16: *Results of the Regression Analyses for HRM and Clan - Co 1.*

Variables	Model 1a Employee Performance		Model 2a Operations Performance		Model 3a Financial Performance	
	B	SE	B	SE	B	SE
Step 2						
HRM (HR Bundle 3)	.584**	(.065)	.246**	(.063)	.160**	(.056)
Step 3						
Constant	.640*	(.283)	2.588**	(.281)	2.632	(.250)
Controls						
Age (25 to 29 yrs)	-.061	(.151)	.267	(.149)	.090	(.133)
Age (30 plus)	-.158	(.152)	.041	(.150)	.053	(.134)
Service (1 to 2 yrs)	-.017	(.147)	-.121	(.146)	-.027	(.130)
Service (2 yrs plus)	-.324*	(.154)	-.325*	(.152)	-.002	(.136)
Sex (Male)	.109	(.121)	.106	(.120)	.099	(.107)
Employee Status (Part Time)	-.095	(.164)	-.121	(.163)	.008	(.145)
Previous Call Centre Exp (No)	-.011	(.123)	-.130	(.122)	-.039	(.109)
Employee Type (Manager)	.227	(.141)	.434**	(.139)	.351**	(.124)
HRM (HR Bundle 3)	.472**	(.072)	.188**	(.071)	.107	(.064)
Clan	.230**	(.072)	.119	(.071)	.109	(.063)
R^2 (Controls)	.101		.132		.078	
ΔR^2 (HRM)	.308		.078		.046	
ΔR^2 (Clan)	.037		.014		.017	
R^2 (Total Model)	.446		.224		.141	
F (Total Model)	12.433**		4.460**		2.528**	

Note: Unstandardized beta coefficients and standard errors are reported.
  $*p < .05$ $**p < .01$ Listwise $n = 165$

Clan was next tested with Company 2 (see Table 17). For employee performance

(Model 1a) at Step 3, clan accounted for an additional 3.9% of the variability ($\Delta R^2 = .039$,

$\Delta F = 13.028, p < .01$) and was significant ($B = .222, t = (3.61)$). Although clan culture

was not found to have a significant association with operational performance for

Company 2 (Model 2a), it was found to be significantly and positively associated with

financial performance. At Step 3 of the model for financial performance (Model 3a), clan

accounted for an additional 1.5% of the variability ($\Delta R^2 = .015$, $\Delta F = 3.773, p < .01$) and

was significant ($B = .115, t = (1.94)$).

Table 17: *Results of the Regression Analyses for HRM and Clan - Co 2.*

Variables	Model 1a Employee Performance		Model 2a Operations Performance		Model 3a Financial Performance	
	B	SE	B	SE	B	SE
Step 2						
HRM (HR Bundle 3)	.532**	(.064)	.377**	(.055)	.390**	(.060)
Step 3						
Constant	1.346**	(.263)	2.694**	(.236)	2.275**	(.254)
Controls						
Age (25 to 29 yrs)	-.346**	(.119)	-.128	(.107)	.134	(.115)
Age (30 plus)	-.394**	(.121)	-.118	(.108)	.079	(.116)
Service (1 to 2 yrs)	-.330**	(.106)	-.249**	(.095)	-.307*	(.103)
Service (2 yrs plus)	-.332	(.173)	-.520**	(.155)	-.327*	(.167)
Sex (Male)	.199*	(.094)	-.046	(.084)	-.099	(.091)
Employee Status (Part Time)	-.034	(.146)	-.003	(.131)	-.010	(.141)
Previous Call Centre Exp (No)	-.009	(.101)	.074	(.091)	-.061	(.095)
Employee Type (Manager)	.138	(.140)	.078	(.125)	.116	(.135)
HRM (HR Bundle 3)	.432**	(.067)	.347**	(.060)	.339**	(.065)
Clan	.222**	(.061)	.066	(.055)	.115**	(.059)
R^2 (Controls)	.251		.201		.136	
ΔR^2 (HRM)	.222		.176		.177	
ΔR^2 (Clan)	.039		.005		.015	
R^2 (Total Model)	.512		.382		.328	
F (Total Model)	17.297**		10.187**		8.064**	

Note: Unstandardized beta coefficients and standard errors are reported.
*$p < .05$ **$p < .01$ Listwise $n = 176$

Barron and Kenny's (1986; 2008) four-step tests of mediation were conducted with clan. The result for the first step remains the same as from the previous test of HRM and firm performance. The second step was found to be significant for all firm performance outcomes for Company 1 ($B = .483$, t (6.84), $p < .01$) and Company 2 ($B = .451$, $t = (5.82)$, $p < .01$). The Sobel test for partial or full meditation was conducted and the results were significant at $p < .01$ for employee performance for both Company 1 and 2. Clan was found to partially meditate the relationship between HRM and employee performance in both field studies.

The adhocracy culture was next examined and Company 1 was first tested with

adhocracy culture (see Table 18). At Step 3 of the employee performance (Model 1b),

adhocracy accounted for an additional 3.8% of the variability in the model ($\Delta R^2 = .038$,

$\Delta F = 10.644, p < .01$) and was significant ($B = .275, t = (3.26)$). Adhocracy culture was

not found to be significantly related to either operational performance (Model 2b) or

financial performance (Model 3b).

Table 18: *Results of the Regression Analyses for HRM and Adhocracy - Co 1.*

Variables	Model 1b Employee Performance		Model 2b Operations Performance		Model 3b Financial Performance	
	B	SE	B	SE	B	SE
Step 2						
HRM (HR Bundle 3)	.584**	(.065)	.246**	(.063)	.160**	(.056)
Step 3						
Constant	.527	(.292)	2.648**	(.292)	2.573**	(.258)
Controls						
Age (25 to 29 yrs)	-.077	(.151)	.283	(.151)	.081	(.134)
Age (30 plus)	-.089	(.150)	.075	(.150)	.085	(.133)
Service (1 to 2 yrs)	-.030	(.146)	-.142	(.146)	-.032	(.129)
Service (2 yrs plus)	-.381**	(.149)	-.392**	(.149)	-.027	(.132)
Sex (Male)	.158	(.123)	.106	(.123)	.123	(.109)
Employee Status (Part Time)	-.026	(.163)	-.090	(.163)	.041	(.144)
Previous Call Centre Exp (No)	-.020	(.123)	-.116	(.123)	-.035	(.109)
Employee Type (Manager)	.236	(.141)	.442**	(.141)	.355**	(.124)
HRM (HR Bundle 3)	.513**	(.067)	.236**	(.067)	.126*	(.059)
Adhocracy	.275**	(.084)	.036	(.084)	.135	(.074)
R^2 (Controls)	.101		.132		.078	
ΔR^2 (HRM)	.308		.078		.046	
ΔR^2 (Adhocracy)	.038		.001		.018	
R^2 (Total Model)	.447		.211		.142	
F (Total Model)	12.484**		4.125**		2.562**	

Note: Unstandardized beta coefficients and standard errors are reported.
$*p < .05$ $**p < .01$ Listwise $n = 165$

Company 2 was next investigated for associations with the adhocracy culture type

(see Table 19). Adhocracy was found to be positively associated with employee

performance and financial performance but negatively associated with operational

performance. However, none of the relationships were found to be significant.

Table 19: *Results of the Regression Analyses for Adhocracy - Co 2.*

Variables	Model 1b Employee Performance		Model 2b Operations Performance		Model 3b Financial Performance	
	B	SE	B	SE	B	SE
Step 2						
HRM (HR Bundle 3)	.532**	(.064)	.377**	(.055)	.390**	(.060)
Step 3						
Constant	1.522**	(.282)	2.821**	(.245)	2.359**	(.266)
Controls						
Age (25 to 29 yrs)	-.363**	(.123)	-.135	(.107)	-.125	(.116)
Age (30 plus)	-.427**	(.125)	-.128	(.108)	.062	(.117)
Service (1 to 2 yrs)	-.350**	(.110)	-.251**	(.096)	-.317**	(.104)
Service (2 yrs plus)	-.405*	(.178)	-.549**	(.155)	-.364*	(.168)
Sex (Male)	.190	(.098)	-.057	(.085)	-.103	(.092)
Employee Status (Part Time)	-.004	(.151)	-.001	(.131)	.006	(.142)
Previous Call Centre Exp (No)	-.041	(.105)	.059	(.091)	-.077	(.099)
Employee Type (Manager)	.218	(.143)	.111	(.124)	.157	(.134)
HRM (HR Bundle 3)	.525**	(.064)	.380**	(.056)	.386**	(.060)
Adhocracy	.060	(.067)	-.028	(.058)	.035	(.063)
R^2 (Controls)	.251		.201		.136	
ΔR^2 (HRM)	.222		.176		.177	
ΔR^2 (Adhocracy)	.003		.001		.001	
R^2 (Total Model)	.476		.378		.314	
F (Total Model)	14.978**		9.995**		7.561**	

Note: Unstandardized beta coefficients and standard errors are reported.
$p < .05$ **$p < .01$ Listwise $n = 176$

Barron and Kenny's (1986; 2008) four-step tests of mediation were conducted. The result for the first step remains the same as from the previous test of HRM and firm performance. The second step was found to be significant for all firm performance outcomes for Company 1 ($B = .483$, t (6.84), $p < .01$) and Company 2 ($B = .451$, $t = (5.82)$, $p < .01$). The Sobel test for partial or full meditation was conducted and the results were significant at $p < .01$ for employee performance for both Company 1 and 2. Clan was found to partially meditate the relationship between HRM and employee performance in both field studies.

In summary, Hypothesis 2 was partially supported. A clan culture type was found to have positive associations with all firm performance outcomes. Adhocracy was also found to have positive relationships with all firm performance outcomes, with the exception of operational performance for Company 2. However, only the clan culture was found to partially mediate the relationship between HRM and employee performance for both Company 1 and Company 2. The overall results from the two field studies were consistent with the results from Study 1 for a clan culture type partially mediating the relationship between HRM and employee performance. In addition, Study 1 also found support for the clan culture type partially mediating the relationship between HRM and operational performance. This relationship was not found in Study 2.

For Hypothesis 3, I tested market and hierarchy culture types for a negative association with firm performance, as well as for mediating the relationship between HRM and firm performance.

Company 1 was first examined with market culture type (see Table 20). At Step 3 for employee performance (Model 1c), market accounted for an additional 4.6% of the variability ($\Delta R^2 = .046$, $\Delta F = 12.971$, $p < .01$) and was significant ($B = -.177$, $t = (-3.60)$). However, market culture was not found to be significantly related to either operational performance (Model 2c) or financial performance (Model 3c) for Company 1.

Table 20: *Results of the Regression Analyses for HRM and Market - Co 1.*

Variables	Model 1c Employee Performance		Model 2c Operations Performance		Model 3c Financial Performance	
	B	SE	B	SE	B	SE
Step 2						
HRM (HR Bundle 3)	.584**	(.065)	.246**	(.063)	.160**	(.056)
Step 3						
Constant	1.743**	(.373)	2.952**	(.375)	3.042**	(.334)
Controls						
Age (25 to 29 yrs)	-.121	(.152)	.260	(.153)	.074	(.136)
Age (30 plus)	-.163	(.150)	.054	(.151)	.059	(.134)
Service (1 to 2 yrs)	.013	(.147)	-.123	(.147)	-.022	(.131)
Service (2 yrs plus)	-.292**	(.154)	-.351*	(.155)	-.010	(.138)
Sex (Male)	.157	(.122)	.116	(.122)	.114	(.109)
Employee Status (Part Time)	-.094	(.163)	-.108	(.164)	.015	(.146)
Previous Call Centre Exp (No)	-.012	(.122)	-.122	(.123)	-.035	(.109)
Employee Type (Manager)	.275*	(.140)	.452**	(.140)	.370**	(.125)
HRM (HR Bundle 3)	.471**	(.070)	.213**	(.070)	.120	(.062)
Market	-.177**	(.049)	-.051	(.049)	-.062	(.044)
R^2 (Controls)	.101		.132		.078	
ΔR^2 (HRM)	.308		.078		.046	
ΔR^2 (Market)	.046		.005		.011	
R^2 (Total Model)	.455		.215		.135	
F (Total Model)	12.878**		4.238**		2.417**	

Note: Unstandardized beta coefficients and standard errors are reported.
$*p < .05$ $**p < .01$ Listwise $n = 165$

Company 2 was next tested with market culture (see Table 21). For employee performance (Model 1c) at Step 3, market culture accounted for an additional 1.7% of the variability ($\Delta R^2 = .017$, $\Delta F = 5.646$, $p < .01$) and was significant ($B = -.127$, $t = (-2.38)$). Market culture was not found to have a significant relationship with either operational performance (Model 2c) or financial performance (Model 3c) for Company 2.

The four-step Barron and Kenny (1986) tests of mediation were conducted. The second step examined market as the mediator variable and it was found to be significant for all firm performance outcomes for Company 1 ($B = -.636$, $t = (-6.23)$, $p < .01$) and Company 2 ($B = -.475$, $t = (-5.12)$, $p < .01$). Step three was conducted and the Sobel test results were significant at $p < .01$ for employee performance for both Company 1 and 2.

Thus, market was found to partially meditate the relationship between HRM and employee performance, which is consistent with Study 1. However, Study 2 did not find market to partially mediate the relationship between HRM and operational performance as was found in Study 1.

Table 21: *Results of the Regression Analyses for HRM and Market – Co 2.*

Variables	Model 1c Employee Performance		Model 2c Operations Performance		Model 3c Financial Performance	
	B	SE	B	SE	B	SE
Step 2						
HRM (HR Bundle 3)	.532**	(.064)	.377**	(.055)	.390**	(.060)
Step 3						
Constant	2.150**	(.340)	2.787**	(.300)	2.344**	(.325)
Controls						
Age (25 to 29 yrs)	-.376**	(.122)	-.134	(.107)	.125	(.116)
Age (30 plus)	-.395**	(.123)	-.128	(.109)	.057	(.118)
Service (1 to 2 yrs)	-.299**	(.110)	-.252**	(.097)	-.321**	(.105)
Service (2 yrs plus)	-.312	(.181)	-.542**	(.159)	-.384*	(.173)
Sex (Male)	.182	(.096)	-.052	(.085)	-.110	(.092)
Employee Status (Part Time)	-.017	(.149)	-.003	(.131)	.001	(.142)
Previous Call Centre Exp (No)	-.073	(.103)	.061	(.091)	-.078	(.099)
Employee Type (Manager)	.175	(.142)	.105	(.125)	.171	(.136)
HRM (HR Bundle 3)	.472**	(.068)	.375**	(.060)	.399**	(.065)
Market	-.127*	(.053)	-.003	(.047)	.017	(.051)
R^2 (Controls)	.251		.201		.136	
ΔR^2 (HRM)	.222		.176		.177	
ΔR^2 (Market)	.017		.000		.000	
R^2 (Total Model)	.490		.377		.313	
F (Total Model)	15.896**		9.959**		7.532**	

Note: Unstandardized beta coefficients and standard errors are reported.
      $*p < .05$ $**p < .01$ Listwise $n = 176$

Hierarchy culture type was next investigated for Hypothesis 3. First, Company 1 was tested with all three firm performance outcomes and hierarchy culture (see Table 22). Hierarchy culture was not found to be significantly related to any of the three firm performance outcomes.

Table 22: *Results of the Regression Analyses for HRM and Hierarchy - Co 1.*

Variables	Model 1d Employee Performance		Model 2d Operations Performance		Model 3d Financial Performance	
	B	SE	B	SE	B	SE
Step 2						
HRM (HR Bundle 3)	.584**	(.065)	.246**	(.063)	.160**	(.056)
Step 3						
Constant	1.040**	(.371)	2.823**	(.360)	2.994**	(.319)
Control						
Age (25 to 29 yrs)	-.002	(.155)	.299*	(.151)	.128	(.134)
Age (30 plus)	-.084	(.155)	.080	(.150)	.095	(.134)
Service (1 to 2 yrs)	-.073	(.151)	-.151	(.146)	-.060	(.130)
Service (2 yrs plus)	-.482**	(.150)	-.407**	(.146)	-.078	(.130)
Sex (Male)	.089	(.125)	.095	(.121)	.086	(.108)
Employee Status (Part Time)	-.029	(.169)	-.086	(.163)	.046	(.145)
Previous Call Centre Exp (No)	.039	(.127)	-.116	(.123)	-.028	(.109)
Employee Type (Manager)	.225	(.147)	.430**	(.142)	.334**	(.126)
HRM (HR Bundle 3)	.576**	(.065)	.241**	(.063)	.150**	(.056)
Hierarchy	-.072	(.082)	-.047	(.079)	-.094	(.070)
R^2 (Controls)	.101		.132		.078	
ΔR^2 (HRM)	.308		.078		.046	
ΔR^2 (Hierarchy)	.003		.002		.010	
R^2 (Total Model)	.412		.212		.134	
F (Total Model)	10.812**		4.146**		2.391**	

Note: Unstandardized beta coefficients and standard errors are reported.
  $*p < .05$ $**p < .01$ Listwise $n = 165$

Company 2 was next examined (see Table 23). Hierarchy culture was not

significantly related to employee performance (Model 1d) or operational performance

(Model 2d). However, hierarchy with financial performance (Model 3d) at Step 3

accounted for an additional 2.4% of the variability ($\Delta R^2 = .024$, $\Delta F = 5.882$, $p < .05$) and

was significantly related to financial performance ($B = -.119$, $t = (-2.43)$).

Table 23: *Results of the Regression Analyses for HRM and Hierarchy - Co 2.*

Variables	Model 1d Employee Performance		Model 2d Operations Performance		Model 3d Financial Performance	
	B	SE	B	SE	B	SE
Step 2						
HRM (HR Bundle 3)	.532**	(.064)	.377**	(.055)	.390**	(.060)
Step 3						
Constant	1.827**	(.303)	2.851**	(.264)	2.769**	(.282)
Controls						
Age (25 to 29 yrs)	-.350**	(.124)	-.129	(.108)	.148	(.115)
Age (30 plus)	-.434**	(.124)	-.131	(.108)	.050	(.115)
Service (1 to 2 yrs)	-.372**	(.111)	-.263**	(.097)	-.359**	(.103)
Service (2 yrs plus)	-.435*	(.178)	-.551**	(.155)	-.402*	(.165)
Sex (Male)	.196*	(.098)	-.046	(.085)	-.079	(.091)
Employee Status (Part Time)	-.007	(.151)	.005	(.131)	.011	(.140)
Previous Call Centre Exp (No)	-.013	(.107)	.075	(.093)	-.022	(.100)
Employee Type (Manager)	.217	(.142)	.101	(.124)	.142	(.132)
HRM (HR Bundle 3)	.525**	(.064)	.374**	(.055)	.380**	(.059)
Hierarchy	-.070	(.053)	-.025	(.046)	-.119*	(.049)
R^2 (Controls)	.251		.201		.136	
ΔR^2 (HRM)	.222		.176		.177	
ΔR^2 (Hierarchy)	.006		.001		.024	
R^2 (Total Model)	.479		.378		.337	
F (Total Model)	15.158**		10.007**		8.371**	

Note: Unstandardized beta coefficients and standard errors are reported.
*$p < .05$ **$p < .01$ Listwise $n = 176$

At step 2 of the Barron and Kenny (1986) four-step test of mediation, the relationship between HRM and the mediating variable hierarchy was not significant for either Company 1 ($B = -.102$, $t = (-1.61)$, $p > .10$) or Company 2 ($B = -.092$, t (-0.99), $p > .10$). Therefore, no mediation of hierarchy with HRM and firm performance was found.

In summary, Hypothesis 3 was partially supported. Both market and hierarchy had negative relationships with all firm performance outcomes, with the exception of financial performance for Company 1. Tests for mediation showed that market culture partially mediated the relationship between HRM and employee performance for both companies. However, mediation was not found with operational or financial performance.

Testing Vertical Alignment with Business Strategy.

The differentiation business strategy was tested to see if there was a positive relationship with the three firm performance outcomes for Hypothesis 4. At Step 3 of all models for Company 1 and Company 2, the HRM variable was significantly and positively associated with all three firm performance measures.

The differentiation business strategy was first investigated for Company 1 (see Table 24). The differentiation business strategy was positively associated with employee performance (Model 1e) but was not significant. For operational performance (Model 2e), differentiation accounted for an additional 3.6% of the variability ($\Delta R^2 = .036$, $\Delta F = 7.359$, $p < .01$) and was positive and significantly and associated with operational performance ($B = .293$, $t = (2.71)$). With reference to financial performance, at Step 3 (Model 3e) the differentiation business strategy accounted for an additional 4.1% of the variability ($\Delta R^2 = .041$, $\Delta F = 7.470$, $p < .01$) and was positive and significantly associated with financial performance ($B = .263$, $t = (2.73)$, $p < .01$).

The differentiation business strategy was next tested for Company 2 (see Table 25). Employee performance (Model 1e) and operational performance (Model 2e) at Step 3 of the models were not significant. When considering financial performance (Model 3e), the differentiation business strategy accounted for an additional 8.6% of the variability in the model ($\Delta R^2 = .086$, $\Delta F = 23.479$, $p < .01$) and was significantly associated with financial performance ($B = .407$, $t (4.85)$).

The differentiation business strategy was then tested to see if it partially mediated the relationship between HRM and firm performance. The Barron and Kenny (1986) four-step tests of mediation were conducted. The first step found HRM was significantly

($p < .01$) related to all three firm performance outcomes for both companies. The second step found that HRM was significantly associated with differentiation for Company 1 ($B = .541$, $t = (11.80)$, $p < .01$) and Company 2 ($B = .350$, $t = (6.77)$, $p < .01$). At step 3, differentiation was significantly related to operational ($p < .01$) and financial ($p < .01$) performance for Company 1 and only to financial performance for Company 2. The Sobel test showed partial meditation for differentiation between HRM and financial performance for both Company 1 and Company 2.

Table 24: *Results of the Regression Analyses for HRM and Differentiation - Co 1.*

Variables	Model 1e Employee Performance		Model 2e Operations Performance		Model 3e Financial Performance	
	B	SE	B	SE	B	SE
Step 2						
HRM (HR Bundle 3)	.584**	(.065)	.246**	(.063)	.160**	(.056)
Step 3						
Constant	.602	(.360)	2.122**	(.342)	2.214**	(.305)
Controls						
Age (25 to 29 yrs)	-.043	(.157)	.223*	(.149)	.051	(.133)
Age (30 plus)	-.114	(.156)	.024	(.148)	.038	(.132)
Service (1 to 2 yrs)	-.040	(.152)	-.082	(.145)	.008	(.129)
Service (2 yrs plus)	-.467**	(.151)	-.373**	(.143)	-.047	(.128)
Sex (Male)	.119	(.127)	.168	(.121)	.149	(.108)
Employee Status (Part Time)	-.048	(.168)	-.117	(.160)	.012	(.143)
Previous Call Centre Exp (No)	.035	(.127)	-.131	(.120)	-.039	(.107)
Employee Type (Manager)	.236	(.145)	.421**	(.138)	.339**	(.123)
HRM (HR Bundle 3)	.519**	(.089)	.087**	(.085)	.018**	(.076)
Differentiation	.119	(.114)	.293*	(.108)	.263**	(.096)
R^2 (Controls)	.101		.132		.078	
ΔR^2 (HRM)	.308		.078		.046	
ΔR^2 (Differentiation)	.004		.036		.041	
R^2 (Total Model)	.413		.246		.165	
F (Total Model)	10.866**		5.034**		3.042**	

Note: Unstandardized beta coefficients and standard errors are reported.
*$p < .05$ **$p < .01$ Listwise $n = 165$

Table 25: *Results of the Regression Analyses for HRM and Differentiation – Co 2.*

Variables	Model 1e Employee Performance		Model 2e Operations Performance		Model 3e Financial Performance	
	B	SE	B	SE	B	SE
Step 2						
HRM (HR Bundle 3)	.532**	(.064)	.377**	(.055)	.390**	(.060)
Step 3						
Constant	1.359**	(.362)	2.402**	(.312)	1.345**	(.319)
Controls						
Age (25 to 29 yrs)	-.365**	(.123)	-.135	(.106)	.120	(.109)
Age (30 plus)	-.454**	(.127)	-.166	(.109)	-.046	(.112)
Service (1 to 2 yrs)	-.350**	(.110)	-.260**	(.095)	-.333**	(.097)
Service (2 yrs plus)	-.415*	(.178)	-.544**	(.153)	-.368*	(.157)
Sex (Male)	.189	(.098)	-.037	(.084)	-.066	(.086)
Employee Status (Part Time)	.016	(.154)	.044	(.132)	.120	(.135)
Previous Call Centre Exp (No)	-.057	(.105)	.049	(.090)	-.119	(.092)
Employee Type (Manager)	.236	(.142)	.114	(.123)	.187	(.125)
HRM (HR Bundle 3)	.497**	(.072)	.327**	(.062)	.248**	(.063)
Differentiation	.099	(.095)	.142	(.082)	.407**	(.084)
R^2 (Controls)	.251		.201		.136	
ΔR^2 (HRM)	.222		.176		.177	
ΔR^2 (Differentiation)	.003		.011		.086	
R^2 (Total Model)	.476		.388		.399	
F (Total Model)	15.030**		10.438**		10.932**	

Note: *$p < .05$ **$p < .01$
Listwise $n = 176$

In summary, partial support was found for Hypothesis 4. For both Company 1
and 2, the differentiation business strategy had a positive association with all three firm
performance outcomes. The relationship with financial performance was significant ($p <$
.01) for both companies and the relationship with operational performance was
significant ($p < .05$) for Company 1 only. Further, the differentiation business strategy
was found to partially mediate the relationship between HRM and financial performance
only. These findings are consistent with Study 1.

As with Study 1, I did not hypothesize about the cost business strategy but ran
supplementary analyses which are presented in Appendix O for Company 1 and
Appendix P for Company 2.

In sum, the cost business strategy was not significant with either Company 1 or Company 2 for any of the firm performance outcomes. Both companies had a negative association of cost business strategy with employee performance and a positive association of cost with financial performance.

Examining Intermediate Linkages

Hypothesis 5 was tested to examine intermediate linkages with both field studies. As with Study 1, hierarchical linear regression models were run with financial performance as the dependent variable and employee (Step 4) and financial (Step 5) performance as two additional independent variables. In all models, the control variables were entered at Step 1 and HRM was entered at Step 2. For each of the companies, ΔR^2 is presented in a summary table.

For Company 1 (see Table 26), HRM was significant and had a positive association with financial performance for all models at Step 2 ($\Delta R^2 = .046$, $\Delta F = 8.141$, $p < .01$). However, in the subsequent steps in the model significance and direction of the associations varied. With the culture types and business strategy types entered at Step 3, only the differentiation business strategy variable was significant ($\Delta R^2 = .041$, $\Delta F = 7.470$, $p < .01$). At Step 4, employee performance was significant ($p < .01$) and remained significant ($p < .01$) at Step 5. Finally, at Step 5 operational performance was significant ($p < .01$) for all models. The differentiation business strategy remained significant for Step 4 only.

Table 26: *Intermediate Linkages with Financial Performance – Co 1.*

Variables		Step 1 Controls R^2	Step 2 HRM ΔR^2	Step 3 Model ΔR^2		Step 4 Emp P ΔR^2	Step 5 Ops P ΔR^2	Total Model R^2
Model								
	a) Clan	.078	.046** (+)	.017	(+)	.230** (+)	.112** (+)	.442
	b) Adhocracy	.078	.046** (+)	.018	(+)	.229** (+)	.114** (+)	.485
	c) Market	.078	.046** (+)	.011	(-)	.237** (+)	.111** (+)	.483
	d) Hierarchy	.078	.046** (+)	.010	(-)	.241** (+)	.111** (+)	.486
	e) Differentiation	.078	.046** (+)	.041**(+)		.232** (+)	.096** (+)	.493

Note: R^2 and ΔR^2 reported that the variable at that step of the regression model only.
(+) or (-) is the direction of the association of the variable at that step of the model.
$*p < .05$ $**p < .01$ Listwise $n = 165$

For Company 2 (see Table 27), HRM was significant and positively associated with financial performance at Step 2 for all models ($\Delta R^2 = .177$, $\Delta F = 42.772, p < .01$). However, significance varied in subsequence steps in the models. The differentiation business strategy was significant at Step 3 ($\Delta R^2 = .086$, $\Delta F = 23.479, p < .01$), along with the hierarchy culture type ($\Delta R^2 = .024$, $\Delta F = 5.882, p < .05$). At Step 4, employee performance was significant for all models and remained significant at Step 5. Operational performance was also significant ($p < .01$) for all models when entered at Step 5. Consistent with the findings in Study 1 and Company 1, the differentiation business strategy was significant ($p < .01$) and had a positive association with financial performance at Step 3 of the model. In addition, hierarchy was significant ($p < .05$) and had a negative association at Step 3.
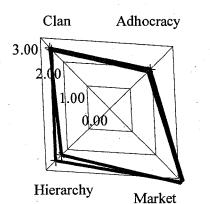
Table 27: *Intermediate Linkages with Financial Performance – Co 2.*

Variables		Step 1 Controls R^2	Step 2 HRM ΔR^2	Step 3 Model ΔR^2		Step 4 Emp P ΔR^2	Step 5 Ops P ΔR^2	Total Model R^2
Model								
	a) Clan	.136	.177** (+)	.015	(+)	.068** (+)	.099** (+)	.495
	b) Adhocracy	.136	.177** (+)	.018	(+)	.080** (+)	.100** (+)	.485
	c) Market	.136	.177** (+)	.001	(+)	.086** (+)	.096** (+)	.494
	d) Hierarchy	.136	.177** (+)	.024*	(-)	.073** (+)	.098** (+)	.496
	e) Differentiation	.136	.177** (+)	.086**(+)		.069** (+)	.082** (+)	.549

Note: R^2 and ΔR^2 reported that the variable at that step of the regression model only.
(+) or (-) is the direction of the association of the variable at that step of the model.
$*p < .05$ $**p < .01$ Listwise $n = 176$

In summary, partial support was found for Hypothesis 5 for direct and indirect linkages affecting firm performance. Of the culture types and business strategy type independent variables tested, only one was significant in both field studies and another in Company 2 only. Differentiation was found to be significant as an intermediate linkage for both Study 1 and 2. Further, there was some evidence in Study 2 that hierarchy has a direct association with financial performance. These findings suggest that the culture types of clan and market indirectly affect financial performance by improving employee and operational performance, whereas hierarchy may have a more direct association with the financial performance outcome measure. Consistent with Study 1, Study 2 found support for the differentiation business strategy to have a direct association with financial performance outcomes.

Difference between Manager and CSR Perceptions

Hypothesis 6 tested for differences in perceptions between manager and CSR employees about HRM, business strategy, organizational culture and firm performance. For Company 1, managers and CSRs both had higher average mean scores for cost as the predominant business strategy (see Table 28). However, the gap between average mean scores for cost and differentiation business strategy was slightly larger for CSRs (0.15) than it was for managers (0.03). In both the areas of HRM and firm performance, manager average mean scores were higher than CSRs with differences in mean scores ranging from 0.30 to 0.47. Although there was a gap in the average mean scores between managers and CSRs for firm performance, both managers and CSRs perceived operational performance as the highest and employee performance as the lowest.

When considering organizational culture types, both managers and CSRs placed the highest emphasis on market culture and the lowest emphasis on adhocracy culture (see Figure 1). However, while managers' average mean score was second highest for a clan culture type, CSRs average mean score placed it third with hierarchy culture second. The manager average mean scores for more negative culture types were lower than CSRs and the more positive types were higher than CSRs. The most notable difference in average mean scores was with hierarchy, where the average mean scores for managers on the five point scale was 2.27 and for CSRs it was 2.55. The other three organizational culture types had a variation in average mean scores between 0.08 and 0.10.

Mean Scores	Managers	CSRs
Clan	2.59	2.49
Adhocracy	1.89	1.81
Market	3.25	3.15
Hierarchy	2.27	2.55

Figure 1. *Organizational Culture – Co 1. A radar diagram with the average mean scores for each organizational culture type for Company 1.*

Independent-samples *t*-tests were conducted to compare the differences in average mean scores between manager and CSR employees. There were no significant differences in scores for Company 1 for three types of culture (clan, adhocracy and market), HRM and employee performance. However, there were three significant differences. First, there was a difference in hierarchy culture for CSRs ($M= 2.55$, $SD= .74$) and managers ($M= 2.26$, $SD= .53$). The magnitude of the difference in the means was small ($\eta^2= .03$).

Second, there was a difference in operational performance scores for CSRs ($M= 3.47$,

SD= .74) and managers (*M*= 3.94, *SD*= .73) and the magnitude of the difference in the

means was moderate (η^2= .07). Finally, there was a difference in financial performance

for CSRs (*M*= 3.34, *SD*= .60) and managers (*M*= 3.74, *SD*= .69). The magnitude of the

difference was moderate (η^2= .07).

Table 28: *Manager and Employee Perceptions, Co 1.*

Means, Standard Deviations and *t*-test scores for Independent and Dependent Variables

	ALL		Mgrs		CSRs		
Variable	M	SD	M	SD	M	SD	t
Employee Performance	2.84	.90	3.07	.78	2.77	.74	-1.80
Operations Performance	3.57	.76	3.94	.73	3.47	.60	-3.36**
Financial Performance	3.43	.64	3.75	.69	3.35	.89	-3.41**
HRM (HR Bundle 3)	3.49	.87	3.70	.87	3.43	.89	-1.60
Clan	2.51	.93	2.59	.81	2.49	.97	-0.54
Adhocracy	1.83	.72	1.89	.61	1.81	.75	-0.61
Market	3.12	1.35	3.25	1.03	3.15	1.43	-0.39
Hierarchy	2.49	.70	2.27	.53	2.55	.74	2.13*
Differentiation	3.77	.73	3.96	.77	3.72	.71	-1.78

Note: *p < .05 **p < .01   Listwise n = 165 (Managers n = 35) (CSRs n = 130)

For Company 2, manager perceptions tended to be slightly higher in terms of

HRM and positive organizational culture types than CSR perceptions (see Table 29). The

differences in average mean scores for Company 1 were less than Company 2. For

example, perceptions of the importance of HRM varied by only 0.04 in difference in

average mean scores between the two groups, while firm performance means differed

from between 0.04 to 0.12. Both managers and CSRs perceived differentiation business

strategy to be higher than cost.

Perceptions of organizational culture varied for Company 2 when considering

average mean scores (see Figure 2). The perception of hierarchy culture by CSRs was

higher than managers and the perception of clan culture by CSRs were lower than

managers. Both CSRs and managers perceived market culture as the highest and

adhocracy as the lowest. Although the order changed from clan and hierarchy for

managers to hierarchy and clan for CSRs, the difference in average mean scores between the two for CSRs was only 0.04.

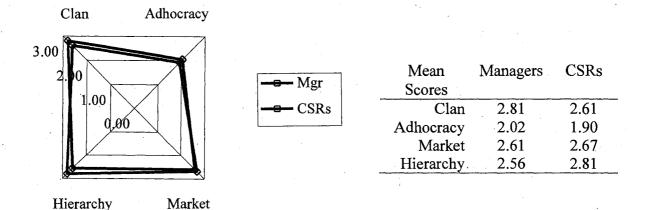| Mean Scores	Managers	CSRs
Clan	2.81	2.61
Adhocracy	2.02	1.90
Market	2.61	2.67
Hierarchy	2.56	2.81

Figure 2. *Organizational Culture – Co 2. A radar diagram with the average mean scores for each organizational culture type for Company 2.*

Independent-samples t-tests were conducted for Company 2 as well to compare differences in average mean scores between CSR and manager perceptions and no significant differences were found.

Table 29: *Manager and Employee Perceptions, Co 2.*

Means, Standard Deviations and *t*-test scores for Independent and Dependent Variables

	ALL		Mgrs		CSR		
Variable	*M*	*SD*	*M*	*SD*	*M*	*SD*	*t*
Employee Performance	3.17	.83	3.12	.74	3.18	.86	0.41
Operations Performance	3.88	.66	3.76	.65	3.90	.66	1.22
Financial Performance	3.63	.69	3.66	.72	3.62	.68	-0.30
HRM (HR Bundle 3)	3.48	.79	3.51	.62	3.47	.83	-0.24
Clan	2.65	.86	2.81	.98	2.61	.82	-1.20
Adhocracy	1.93	.73	2.02	.62	1.90	.76	-0.91
Market	2.65	1.03	2.61	.96	2.67	1.05	0.32
Hierarchy	2.76	.96	2.56	.89	2.81	.97	1.43
Differentiation	3.89	.59	3.94	.58	3.88	.59	-0.55

Note: $*p < .05$ $**p < .01$ Listwise $n = 176$ (Manager $n = 35$) (CSR $n = 141$)

In summary, support was not found for Hypothesis 7. Perceptions between managers and CSRs did vary, however, in most areas there was alignment with respect to order of importance and organizational focus. Manager perceptions tended to be slightly

higher in terms of the organizational culture types with more positive associations and slightly lower in terms of the organizational culture types with more negative associations. Only with Company 1 were significant differences in perceptions found; one organizational culture type (hierarchy) and two firm performance outcomes (operational and financial). Although Company 2 CSRs had an average mean score lower for hierarchy culture than managers, the difference was not found to be significant. The findings did not support the hypothesis that managers perceptions tend to be higher for positive aspects and lower for negative aspects. Overall the perceptions in most areas, with the exception of the three in Company 2, were not significantly different.

Discussion

In Study 2, six hypotheses were tested. The field studies supported that the system of HR practices explained more of the variance in firm performance outcomes than individual practices alone. The findings for Hypothesis 1 were consistent with Study 1, revealing that HRM was significantly related to all three firm performance outcomes.

Study 2 also examined vertical alignment of culture types and the differentiation business strategy. With respect to culture, the findings from Study 2 were again consistent with Study 1 for positive and negative associations with different culture types. However, although Study 1 found support for both a clan and market culture partially mediating the relationship between HRM and employee performance, and HRM and operational performance, Study 2 only found support for both culture types mediating the relationship between HRM and employee performance. This partial support for Hypotheses 2 and 3 may be explained by the inclusion of employee level respondents and their perceptions about HRM, organizational culture and firm performance.

As with Study 1, Hypothesis 4 was partially supported. A differentiation business strategy was found to be positively associated with all three firm performance outcomes but only to partially mediate the relationship between HRM and financial performance, which is consistent with Study 1. Study 2 also examined intermediate linkages with financial performance. Only the differentiation business strategy model was found to have a significant relationship with financial performance at Step 3. The results from regression analyses support an indirect relationship of two culture types (clan and market) with financial performance. Therefore, partial support was found for Hypothesis 5.

Finally, Study 2 examined the difference in CSR and manager perceptions of HRM, firm performance, culture and business strategy. Support was not found for Hypothesis 6. Although the average means scores for manager perceptions were more positive than CSR perceptions of HR and firm performance, the overall differences between the two were not significant. For example, manager average mean scores were higher for culture types with positive associations than CSR perceptions and conversely less for culture types with negative associations. However, the differences between CSR and manager perceptions were not significant, with the exception of Company 2 for hierarchy culture, operational performance and financial performance.

CHAPTER 6: DISCUSSION AND CONCLUSION

The purpose of this study was to examine the relationships among organizational culture, HRM, business strategy and firm performance using business-unit level data in call centres in Canada. The study findings were consistent with conventional aspects of the SHRM model relating to HRM horizontal alignment, the relationship between HRM and firm performance, and the vertical alignment of business strategy with HRM and firm performance. Cameron and Quinn's (2006) competing values framework (CVF) was used to test the impact of four organizational culture types on firm performance, as well as relationships among business strategy, HRM and firm performance. The studies' results provided support for past arguments that organizational culture is an important vertical alignment that must be considered in future research (Dyer & Ericksen, 2005; Roberts & Hirsch, 2005). The results of this study also showed evidence that efforts to improve organizational functioning, such as organizational culture, may actually assist in improving overall firm performance.

Summary of Study Findings

Study 1 – National Call Centre Study

Study 1 (National Call Centre Study) and Study 2 (Field Study of Call Centre Business Units) investigated the relationship of organizational culture in SHRM research. Study 1 included a wide variety of call centres across Canada in a sample of over 300 call centre business units. The findings from this study showed evidence of horizontal alignment of the HR system, a relationship between HRM and firm performance, vertical alignment with business strategy and vertical alignment with organizational culture. The

findings showed that the system of HR practices explained more of the variance for firm performance outcomes than the individual practices alone. Further, there was a positive association between the perceived importance of HRM and increased firm performance.

A summary of the overall findings for Study 1 are presented in Table 30. It was found that all organizational culture types were significantly associated with employee performance, three with operational performance and two with financial performance. The clan and adhocracy culture types had a positive association with all three firm performance outcome measures and market and hierarchy had a negative association. The relationship between HRM and firm performance was not as strong when the clan and market culture types were included in the estimations. Moreover, clan and market organizational culture types also were found to partially mediate the relationship between HRM and employee performance, and HRM and operational performance. Although financial performance was significantly and positively associated with adhocracy and significantly and negatively associated with hierarchy, partial mediation was not found. However, there was evidence that financial performance was influenced indirectly by the association of clan and market culture types with employee performance.

Table 30: *Summary of Findings from Study 1 – National Call Centres.*

Model	Employee Performance (1)	Operations Performance (2)	Financial Performance (3)
a) Clan	+++ *PM*	++ *PM*	-
b) Adhocracy	++	++	++
c) Market	-- *PM*	-- *PM*	-
d) Hierarchy	--	+	---
e) Differentiation	+	+	+++ *PM*

Note: Positive relationships +++ = $p < .01$, ++ = $p < .05$, + = $p > .10$
        Negative relationships --- = $p < .01$, -- = $p < .05$, - = $p > .10$
        PM partial mediation (Culture or Business Strategy types between HRM and firm performance)

Study 2 (Field Study of Call Centre Business Units)

Study 2 included two field studies of call centres located in Atlantic Canada. Both of the call centres were outsourcers with one being U.S.-owned and the other Canadian. The business units for both field studies were relatively equal in size and response rates were similar. Study 2 was consistent with the results from Study 1 with respect to horizontal alignment of HRM, the relationship between HRM and firm performance, and vertical alignment between HRM and firm performance.

A summary of overall findings for associations and vertical alignment tested in Study 2 are presented in Table 31. The findings in Study 2 were consistent with Study 1 for vertical alignment of organizational culture with employee performance. The clan and adhocracy culture types were positively associated with all three firm performance outcome measures and the hierarchy and market cultures were negatively associated with all three. In addition, both the clan and market cultures were found to partially mediate the relationship between HRM and employee performance. However, mediation of these two culture types of the relationship between HRM and operational performance was not found in Study 2 as was found in Study 1. Although Study 1 did not show that the adhocracy culture partially mediated HRM and firm performance, there was support found for adhocracy partially mediating the relationship between HRM and employee performance when considering Company 1 in Study 2. Consistent with Study 1, the differentiation business strategy was significantly and positively associated with financial performance and was also found to partially mediate the relationship between HRM and financial performance.

Table 31: *Summary of Findings from Study 2 – Field Studies of Call Centres.*

Model	Employee Performance (1)		Operations Performance (2)		Financial Performance (3)	
	Co1	Co2	Co1	Co2	Co1	Co2
a) Clan	+++ *PM*	+++ *PM*	+	+	+	++
b) Adhocracy	+++ *PM*	+	+	-	+	+
c) Market	--- *PM*	-- *PM*	-	-	-	+
d) Hierarchy	-	-	-	-	-	--
e) Differentiation	+	+	++	+	+++ *PM*	+++*PM*

Note: Positive relationships +++ = $p < .01$, ++ = $p < .05$, + = $p > .10$
   Negative relationships --- = $p < .01$, -- = $p < .05$, - = $p > .10$
   PM partial mediation (Culture or Business Strategy types between HRM and firm performance)

Study 2 also provided an opportunity to examine manager versus employee perceptions with respect to HRM, organizational culture, business strategy and firm performance. The results partially support research (MacIntosh & Doherty, 2005) that manager and employee perceptions about organizational culture may differ. In both field studies, managers' perceptions of the clan and adhocracy culture types were slightly higher than employees, and lower than employees' perceptions of the market and hierarchy culture types. These differences were most evident in the difference between manager and employee perceptions of the hierarchy culture type. However, overall the differences between manager and CSR perceptions were not found to be significant, with the exception of hierarchy culture for Company 1. Although manager average mean scores were slightly higher, it is interesting to note that there were no significant differences found for Company 2 and only three for Company 1 (hierarchy, operational performance and financial performance). Perceptions were similar with regard to higher average mean scores for which business strategy was more prevalent and the order of highest ratings for each element of firm performance (for example, in each business unit

both managers and employees rated operational performance highest, followed by financial performance, and then by employee performance).

Research Implications

The contingency hypotheses that the effectiveness of HRM is dependent upon vertical alignment with different organizational culture types were partially supported in my research. In particular, the results from both studies supported that clan and market culture types partially mediate the relationship between HRM and employee performance. In addition, both of these culture types explained a slightly higher portion of the effects on employee performance than HRM alone. There was also support found in the national study for a vertical alignment of both of these organizational culture types with operational performance. However, these results were not found in the field studies. One possible explanation for this may be related to the outsourcer orientation of each of the business units in the field studies. Nonetheless, the research makes an important contribution by providing evidence that organizational culture is a contingency to consider in the SHRM relationship model and that introducing HRM in the absence of understanding organizational culture may not affect firm performance in the ways in which researchers and practitioners have traditionally thought.

Support was also found in both studies for the contingency hypothesis about vertical alignment of the differentiation business strategy with firm performance. As with previous work (Hoque, 1999; Michie & Sheehan, 2005), the results from the research showed that the differentiation strategy had a positive association with all three components of firm performance but was only significantly associated with financial performance. Earlier studies, such as Huselid (1995), found no evidence of vertical

alignment with business strategy, whereas some subsequent studies have found support (Guthrie et al., 2002; Hoque, 1999; Michie & Sheehan, 2005). It has been suggested that perhaps the reason that support wasn't found in earlier work was because the studies were multi-industry rather than single-industry (Hoque, 1999). However, Becker and Huselid (2006) have recently argued that empirical studies such as Collin and Smith's (2006) study of Information Technology (IT) firms are more context specific and provide for a better examination of SHRM issues due to the focus on strategic business processes within contexts with similar firm performance outcomes. The studies in my research follow this direction by examining call centres which are context specific and provide a focus on a strategic business process with similar performance outcomes. Using this research context, the results from both of my studies support past research that have found that the differentiation business strategy has a positive association with financial performance.

It has been argued that perceptions of HRM may differ between managers and employees and that past research has almost exclusively relied on manager level respondents (Bowen & Ostroff, 2004). Study 2 provided an opportunity to address this issue by examining horizontal alignment of perceptions using both customer service representative and managerial employee respondents. Although manager average mean scores were slightly higher than employees for the HR system of practices, the difference between the two groups was not found to be significant for either of the field studies. This finding provides SHRM researchers with useful information to address objections about the difference in perceptions between manager and employee about HRM.

In the past, studies have been conducted to examine various intermediate outcomes, such as turnover, and the findings have supported linkages with financial performance. The studies in my research contribute to intermediate linkage literature in two ways. First, most studies conducted have examined one firm performance outcome, such as employee performance, with financial performance. For example, earlier studies have found evidence that operational performance outcomes affect financial performance outcomes (Huselid et al., 1997) and employee performance outcomes, such as turnover (Shaw et al., 2005); employee performance outcomes, such as organizational citizenship behavior, affect operational performance (Sun et al., 2007); and employee performance outcomes, such as organizational climate, affect financial performance outcomes (Collins & Smith, 2006). The studies in my research are unique in that they examined both employee and operational performance outcomes as intermediate linkages with financial performance. Second, my research also makes a contribution to intermediate linkages by finding that organizational culture has associations with financial performance both directly and indirectly. In a model of intermediate linkages, which included employee performance and operational performance as independent variables, both adhocracy and hierarchy culture type were found to have a significant association with financial performance. However, clan and market were not significantly associated with financial performance. As a result, these two culture types do not have a direct association with financial performance but rather an indirect association. In other words, as employee performance and operational performance outcomes are increased with the association with the clan culture, financial performance is subsequently positively affected. Conversely, as employee and operational performance are negatively impacted by market

culture, financial performance is as well. These findings contribute to the SHRM literature concerning the role of intermediate linkages in developing our understanding of how HRM affects firm performance.

The two studies in my research also show that organizational culture can be measured quantitatively and provide useful insights about the effect organizational culture has on firm performance. The Competing Values Framework OCAI was tested in three separate studies, with a large sample of over 300 national call centre business units and two specific call centre business units. The results of the three studies showed that the properties of the OCAI were psychometrically sound, with the exception of hierarchy culture for one business unit in Study 2. However, in the two other studies the internal reliability of the scale was acceptable as were the other three organizational culture types for all three studies. Given the results, it can be concluded that the OCAI provides researchers with an acceptable means to evaluate organizational culture. More specifically, the OCAI is a useful framework for researchers to use to examine macro-level SHRM relationships.

Finally, the findings from my studies also have implications for both academics and practitioners who are interested in examining SHRM in call centres. Call centres have become an increasing integral part of many businesses and firms continue to adopt call centres operations to improve financial performance. Although there has been more of a concentration by researchers on the micro-level HR practices in call centres, such as electronic performance monitoring (Aiello & Kolb, 1995; Holman, 2002a; Moorman & Wells, 2003; Stanton & Barnes-Farrell, 1996), fewer studies have examined call centres from a SHRM perspective (Batt, 1999; Wood et al., 2006). From an academic

perspective, my research supports the focus on call centre jobs as strategic given the effect they have on firm performance, and specifically, financial performance, and the focus on context specific studies. The results from the studies further demonstrate that it is useful to examine call centres at a macro and micro-level perspective to provide insights about HR from both an HR systems and HR practice perspective.

From a practitioner perspective, a macro-level analysis of SHRM provides a useful diagnostic and assessment tool for organizations to improve firm performance. Many organizations survey employees about job satisfaction or employee engagement. However, organizations have less often asked employees about the effectiveness of HR or their perceptions of organizational culture. Using the OCAI provides a framework that makes examining organizational culture accessible by organizations. By doing so, organizations can assess HR and culture in order to target areas that may help to increase firm performance. For example, given the negative association of the hierarchy culture type on both employee and financial performance, organizations can develop an understanding of employee perceptions and make changes to shift these perceptions by designing and implementing practices and policies more aligned with culture types. Involving employees in assessing culture and HRM provides a better alignment with perceptions of the current environment and a deeper understanding of HR and culture perceptions from which to develop changes for the future.

My research reveals other practical implications for use within organizational contexts as well. For example, organizations can use an approach similar to the one taken with the survey designed for both studies to assess overall strategic human resource management alignment. Through an exercise such as the one conducted in this research,

organizations can examine employee and manager perceptions of the effectiveness of the implementation of human resource management practices in conjunction with perceptions of organizational culture, business strategy and firm performance. This diagnostic exercise can be used to assess the current strategic human resource planning baseline and then develop changes for alignment in various areas. This approach can assist operating and HR managers to develop a macro-HRM alignment assessment tool to ground directions on SHRM and HR planning within the organization (Belcourt, Bohlander, & Snell, 2008; Belcourt & McBey, 2007; Schwind, Das, & Wagar, 2007). The results from such an approach would provide senior human resource managers with both an input for adjusting and planning HRM within the organization and open up discussions with other senior leaders with the goal of developing closer ties for strategic alignment.

Insights from examining SHRM alignment may be used for creating new or changing existing micro-HR interventions. HR managers can work with various organizational leaders to develop a gap analysis between the current state and desired future state to assess SHRM alignment. Through identifying the gaps, HR managers can assist operational areas to develop and introduce human resource management practices as interventions to shift strategic alignment to the desired end state. For example, by conducting the strategic HRM diagnostic exercise, areas of alignment and misalignment with overall firm performance may be identified. HR managers can then target different areas of HR practice and further examine alignment issues. An analysis at this level may assist in developing HR interventions to move towards desired outcomes.

Finally, organizations may also use such a diagnostic for the purposes of organizational change strategies. Conducting the strategic organizational HRM alignment

assessment can provide the organization with an understanding of SHRM alignment at all levels of the organization as well as within different business units. The diagnostic results may be used to analyze the current state and determine the shift required, or perhaps an unfreezing of existing culture and alignment, to achieve the new organizational direction. Similarly, organizations seeking to set up new divisions may also use the diagnostic to identify the preferred cultural characteristics to align HRM with firm performance outcomes. For example, organizations that determine innovation is required to address new threats from the external environment may use the organizational culture assessment instrument to identify the current and preferred culture of the business unit. Subsequently, HR philosophies and practices can be developed to support the desired organizational culture.

As it relates to contact centres, this research offers numerous insights for practitioners within these environments. Again, conducting the strategic HRM alignment exercise is a good starting point for doing a diagnostic of the call centre business unit. This information may be used to identify possible strategic HR interventions to assist with improving firm performance. For example, the leadership team from one of the field study business units in this research project used the strategic HRM alignment diagnostic in their business planning for the upcoming year. The leadership team engaged with the HR representatives to host focus groups and gather other information to help understand some of the findings from the study. Through this exercise a number of HR interventions were identified that addressed issues relating to employee participation and involvement along with several other items. The organization developed and introduced the interventions and within a year the organization improved employee satisfaction ratings

and reduced employee turnover. Although it is difficult to determine causality, the focus on SHRM alignment within the organization changed the process of operational planning to one that focused and integrated HR planning as a major component. Given the nature of call centre environments, such an approach to strategic HR alignment may better guide the business unit toward improved results rather than a best practice approach.

Finally, the results from this research provide some interesting insights about the type of organizational culture that is more positively and negatively associated with firm performance. For example, both studies showed that a clan culture type was more positively associated with employee performance and that a market culture type was more negatively associated with employee performance. The examination of intermediate linkages revealed that financial performance was indirectly associated by employee performance. By understanding dominant culture types an organization may be able to capitalize on strategies that will increase firm performance.

Limitations and Future Research

There are a number of strengths and limitations to this research that must be taken into consideration when interpreting the results of the studies. In Study 1, cross-sectional data from a single source within each call centre business unit was used. The use of single versus multi-respondents has been debated in SHRM research over the past 10 years (Gerhart et al., 2000; Wright, Gardner et al., 2001). Becker and Huselid (2006) have argued that the few studies examining single versus multi-respondent samples have showed little difference in responses and that researchers should focus on getting larger samples rather than multiple respondents. A review of the literature reveals that most studies examining SHRM have sample sizes with less than 150 respondents, with the

exception of a handful of large studies having 300 or more participants (Batt, 2002; Delaney & Huselid, 1996; Huselid, 1995; Michie & Sheehan, 2005; Rogg et al., 2001). A strength of my research lies in the size of the national study which had a sample size of more than 300 respondents, about double the usual sample size of many SHRM studies.

Both Study 1 and 2 collected data about HR, organizational culture, business strategy and firm performance using a cross-sectional design and at a single point in time. Although this approach is consistent with much of the SHRM research conducted, these designs are susceptible to biases related to common method variance. Podsakoff and Organ (1986) have argued that information known by respondents to be accurate or data that are either factual or verifiable present less of an issue. In this study, information about the dependent variables (employee performance, operational performance and financial performance) is more factual in nature. The other areas of the survey are less factual in nature (business strategy, culture and HR). However, similar to Guthrie, Spell and Nyamori's (2002) study, the consistency of the survey, along with the multi-levels of analysis, assists to lessen this concern. To address issues related to gathering data at a single point in time, future studies should consider longitudinal studies to provide for an assessment of the relationships across multiple points in time to make it possible to examine the direction of causality of the relationships.

In both of my studies, all areas of the SHRM model were measured using subjective perceptual measures. There has been much debate about the use of subjective versus objective measures in the SHRM literature (Becker & Gerhart, 1996; Gerhart et al., 2000). However, it has been found that there is a relationship between the two to support reliance on subjective measures (Wall et al., 2004). The research of my design

included an examination of both manager and employee perceptions of HRM practices.

It has been argued that managers may have perceptions of a higher level of effectiveness

of the implementation of HRM practices within an organization than employees (Huselid

& Becker, 2000). Although this study did find that managers had slightly more positive

perceptions of HRM, the study also showed that employee perceptions of the same

practices were relatively consistent with those of managers. The inclusion of manager

and non-manager respondents within an organization provided for an examination of

consistency of perceptions, which also assisted with validating subjective measures.

Cameron and Quinn's (2006) Competing Values Framework was selected for this

study because it is the most widely used in the literature and has been tested in numerous

studies reporting the soundness of the psychometric properties (Cameron & Quinn, 2006;

Igo & Skitmore, 2006; Kwan & Walker, 2004). Although the Organizational Culture

Assessment Instrument (OCAI) has been empirically validated in numerous field studies

(Cameron & Quinn, 2006; Igo & Skitmore, 2006), it does use an ipsative rating scale

which is structured in such a way as to cause respondents to force choice among several

items. To address this issue, some researchers use a likert scale as an alternate to the

ipsative rating scale. However, several advantages and disadvantages are associated with

either approach. For example, the use of a likert scale addresses issues of forcing choices

by respondents but it may not provide for differentiation among the four organizational

culture types. In contrast, the primary advantage of using the ipsative rating scale is that it

does provide for differentiation among the four organizational culture types as

respondents must identify tradeoffs among the four culture types. It has been found that

when using likert scales that respondents assess all quadrants either high or low

(Cameron & Quinn, 2006). This finding was supported in a study conducted with health care workers where it was found that employees, in particular, did not differentiate among the culture types (Helfrich, Li, Mohr, Meterko, & Sales, 2007). Another other challenge with ipsative ratings scales are that they do not produce independent response such as likert scales produce. However, studies examining the use of the OCAI using both ipsative and likert scales suggest that either may be appropriate depending on the research questions. In this research, differentiating among the organizational culture types was central to understanding the relationships among the variables examined. Therefore, using the ipsative measures of organizational culture provided the basis to differentiate among the four types of cultures in Cameron and Quinn's (2006) Competing Values Framework.

A number of associations have been found in these studies, many of which support organizational culture as an important consideration in SHRM research. The results of this study must be interpreted with caution when considering relationships and causality. Although this study focused on the relationship of HRM and firm performance as mediated by organizational culture, these relationships may be examined by means of causal modeling. Further, future studies using longitudinal designs would benefit SHRM research by continuing to develop our understanding of the role of organizational culture in the SHRM relationship model over multiple points in time to assist with predictions of causality. In addition, context-specific studies using call centres could extend this research by examining organizational culture outside the Canadian context and further exploring differences between internalized and externalized employment models.

Conclusions

In conclusion, my studies provide evidence that certain organizational culture types are associated with firm performance and partially mediate the relationship between HRM and firm performance. More specifically, I found that the clan and adhocracy culture types had a positive association with employee performance outcomes and that the market and hierarchy culture type had a negative association with employee performance. Moreover, I found that only clan and market cultures partially mediated the relationship with employee performance across both studies. These findings suggest that HR and operational leaders within call centre environments should consider diagnosing the social context, specifically organizational culture, in order to better align HR practices for successful implementation and to achieve desired firm performance outcomes. In addition, these findings support past arguments that organizational culture is an important contingency in SHRM research and I am hopeful that future research will build on this foundation by examining the interaction effects among HR, business strategy and culture to further our understanding of the ways in which improving employee performance outcomes will increase operational and financial performance.

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Appendix A: *HR Approaches*

HR Approaches.

HR Practice Approach Schuler and Jackson, 1987	HR Principle Approach Pfeffer and Veiga, 1998

1. Planning choices
 	
   i.e., Short term vs long term
 	
2. Staffing choices
 	
   i.e., Narrow vs broad paths
 	
3. Appraising choices
 	
   i.e., Individual vs group criteria
 	
4. Compensating choices
 	
   i.e., Few vs many perks
 	
5. Training and development
 	
   i.e., Low vs high participation
	1. Employment security
	
	2. Selective hiring
	
	3. Self-managed teams and decentralized decision-making
	
	4. Comparatively high compensation contingent on organizational performance
	
	5. Extensive training
	
	6. Reduced status distinctions and barriers (i.e., dress, language, office arrangements)
	
	7. Extensive sharing of financial and performance information throughout the organization

Appendix B: *Research Ethics Approval (Saint Mary's University)*

Saint Mary's University (REB 07-028)

Saint Mary's University

Halifax, Nova Scotia
Canada B3H 3C3

Research Ethics Board
tel   902.420.5728
fax   902.420.5104
e-mail ethics@stmarys.ca
web   www.stmarys.ca/academic/reb

March 7, 2007

CARROLL, Wendy R.
WAGAR, Terry
Management

Dear Dr. Wagar:

RE: REB 07-028
       ***"Organizational culture, HRM and firm performance: Examining linkages
       with the competing values framework in call centres."***

Please find enclosed a certificate of approval for your student. As well copies of the
certificate are provided for your file.

Yours sincerely,

Dr. Veronica Stinson
Chair, Research Ethics Board

Appendix C: *Research Ethics Approval (Acadia University)*

Acadia University (REB 07-12)

ACADIA
UNIVERSITY

Campus Box 181
Wolfville, Nova Scotia B4P 2R6
Canada

Telephone: (902) 585-1407
Facsimile: (902) 585-1070
Internet: smaitzen@acadiau.ca

April 5, 2007

Dr. Terry Wagar
Sobey School of Business
St. Mary's University
923 Robie Street
Halifax, NS B3H 3C3

Re: "Organizational Culture, HRM and Firm Performance: Examining Linkages with the Competing
Values Framework in Call Centres" (REB 07-12)

Dear Dr. Wagar,

At its meeting of April 3, 2007, the Acadia University Research Ethics Board granted ethics
approval to the above-referenced research proposal submitted by your doctoral student **Wendy R.
Carroll**. In the judgment of Dr. Susan Potter, a Representative of Faculty on the Board, the
proposed research poses no more than minimal risk of harm to research subjects. Accordingly, your
application received an expedited approval by Dr. Potter and subsequent ratification by the entire
Board, as provided for in Article 1.6 of the Tri-Council Policy Statement (TCPS) governing research
on human subjects.

This approval is for a term of one year. If the project will not conclude before April 5, 2008, please
contact me at that time regarding an extension of this term of approval. Please inform me of any
significant changes to the research before they are implemented. Please also note this additional
requirement: In accordance with Article 1.13(c) of the TCPS, the Board must be promptly notified
when the project concludes; an email notification sent to me will suffice.

The Board extends its best wishes for a successful project.

Sincerely,

Appendix D: *National Contact Centre Survey*

This survey may be accessed on the web at the following URL:
http://athena.smu.ca/survey/wrcarroll/mainsurvey.htm

Introduction

Learning more about HR in Call Centres

Wendy R. Carroll, F.C. Manning School of Business, Acadia University, Wolfville, N.S.
Phone: (902) 585-1864, wendy.carroll@acadiau.ca

I am a graduate student in the Department of Management at Saint Mary's University in Halifax, Nova Scotia as well as a faculty member at Acadia University in Wolfville, Nova Scotia. As part of my doctoral studies, I am conducting a research project working under the direction of Dr. Terry Wagar.

The purpose of this study is to learn more about human resources in contact centre work environments. The survey asks you questions about your experience and perceptions about your work environment and organization. Leading industry experts like you have been posing many questions about the relationship between human resource management and organizational performance. These questions have led to further research to explore other factors which are thought to influence this relationship. Specifically, this survey takes a closer look at the influence of organizational culture and strategy to help us understand better how HRM practices affect organizational performance.

For each section of this survey you will find some instructions to guide you through. We anticipate that the survey should take you approximately 12 minutes to complete. You can leave the browser window open while you are in process of completing the survey and come back to it later in the session. As long as you don't close the browser your data will be kept and you can continue at a later time.

For your participation in our survey, we are able offer you an entry into a draw for a 2GB Apple iPod Nano. Simply key in your email address at the end of the survey and you will be eligible to win an ipod which will be drawn for upon completion of the project.

This research has been approved by the research ethics boards at Saint Mary's University (REB 07-028) and Acadia University (REB 07-12).

This survey is being conducted across Canada with senior leaders like you in contact centre operations. Your participation in this survey is confidential. Results will be aggregated and you will receive a full report of the study findings upon completion of the project.

By clicking on "CONTINUE", you are indicating that you fully understand the above information and agree to participate in this study.

Appendix D: National Contact Centre Survey Continued

Business Strategy Questions

About your organization

In completing this section of the survey, you are identifying the features that best describe your organization's business strategies. Your organization is represented by the one which you work for directly and not the one which you may deliver services to on behalf of your organization.

So based on your thoughts and experiences within your organization, indicate how important you think each item is using the scale below.

     1 = Not at all important
     2 = Of little importance
     3 = Moderately important
     4 = Important
     5 = Very important

Q. Question1
How important do you think the following items are in determining your organization's approach to business strategy?

1. Reducing or containing costs
2. Providing products and services at a price below those of competitors
3. Providing products and services at a low cost
4. Ensuring a low service response time
5. Improving the quality of products or services
6. Improving the range of products and services
7. Customizing products and services
8. Developing innovative products and services
9. Switching quickly between production of different products and services requirements
10. Producing products and services for higher-priced segments of the market
11. Developing new techniques and methods to market products and services
12. Penetrating and/or developing new markets

Appendix D: National Contact Centre Survey Continued

HR Practices Questions

About your organization's HR Practices

In this section, please think about the human resource practices in your organization and the extent to which you think your organization places importance on each item.

> Please indicate the degree of importance using the following scale.
> 1 = Not at all important
> 2 = Of little importance
> 3 = Moderately important
> 4 = Important
> 5 = Very important

Q. Question2
When it comes to hiring, recruiting and retaining employees, how important is it to your organization to:

1. make an extensive effort when selecting new employees.
2. spend a great deal of money on selection.
3. hire people with general versus specific knowledge.
4. make great effort to select the right person.
5. have high selection criteria to become a new employee.
6. place great importance on the selection process.
7. focus on an employee's potential over the long term.
8. make an effort to use selection methods such as personality or aptitude testing.
9. have a formal system for communicating the values and systems in the organization to new employees.
10. give consideration to internal over external candidates for job openings and promotions.
11. provide employees with a clear career path within the organization.
12. have a formal system to communicate career aspirations with supervisors.
13. provide a variety of potential positions to be promoted to within the organization.
14. have a commitment to long term employment.
15. make it difficult to dismiss an employee.

Appendix D: National Contact Centre Survey Continued

HR Practices Questions Continued

About your organization's HR Practices

Q. Question3
When it comes to training and job design, how important is it to your organization to:

    1. make a significant investment in initial training when hired
    2. make a significant investment in training after hired.
    3. provide opportunities for training to front line employees.
    4. provide a variety of different kinds of training.
    5. have a systematic training process and formal training programs.
    6. place a high priority on training.
    7. provide extensive training for general skills.
    8. provide formal training to increase skills for promotability.
    9. have clearly defined jobs and duties.
    10. have up-to-date job descriptions.
    11. have complete job descriptions that contain all the duties of the job.
    12. have job duties defined by the employees rather than by the job description.
    13. have mostly simple and repetitive job designs.
    14. have broadly designed jobs requiring a variety of skills.

Q. Question4
When it comes to employee participation and involvement, how important is it to your organization to:

    1. provide opportunities for employees to use personal initiative.
    2. permit enough discretion in doing work.
    3. provide for participation in a wide range of issues.
    4. have employees at times be invited to participate in problem solving and decision making.
    5. encourage employees to make suggestions for improvements within the workplace.
    6. provide open communication with all employees to supervisors.
    7. have a system of regular, planned team briefings involving senior management.
    8. inform all staff about the market position and the competitive pressures faced by the company.
    9. create a very cooperative and trustful climate.
    10. conduct regular attitude surveys to obtain views of employees.

Q. Question5

When it comes to performance feedback, compensation and rewards, how important is it to your organization to:

    1. have reward practices based on seniority.
    2. have a wide range in pay within the same job grade.
    3. have a close tie of pay to individual and group performance.
    4. conduct formal appraisals on a regular basis.
    5. base performance appraisals primarily (>50%) on objective, quantifiable measures.

Appendix D: National Contact Centre Survey Continued

Culture Questions

About your organization's culture

In completing this section of the questionnaire, you are providing an organizational picture of the ways in which your organization operates and the values that best characterize it. There is no right or wrong answer to these questions so please just try to be as accurate as you can.

This section is a little different from the others. In each set of statements below, **you will have 10 points to distribute among the four statements provided.** Assign the most points to the statement you think sounds most like your company and the least to the one that sounds the least like your company.

You can also assign half points to statements (ie: 2.5) or 0 as long as the **total equals 10 for the entire set of statements.** There is a calculator at the end of each set of statements to help you keep track.

On this page, you can move to the next field in each section by either moving the curser with your mouse or be using the tab key.

For each set of statements below please think about your organization and distribute the 10 points based on the statements' likeness to your organization.

Q. CultureQuestion1 **[Dominant Characteristic]**
1) Your organization is a very:
a. personal place. It is like an extended family. People seem to share a lot of themselves. ___
b. dynamic and entrepreneurial place. People are willing to stick their necks out and take risks. ___
c. results orientated place. A major concern is getting on with getting the job done. ___
d. controlled and structured place. Formal procedures generally govern what people do. ___
Must add up to 10

Q. CultureQuestion2 **[Organizational leadership]**
2) The leadership in your organization is generally considered to exemplify:
a. mentoring, facilitating or nurturing. ___
b. entrepreneurship, innovation and risk taking. ___
c. a no-nonsense, aggressive, results-orientated focus. ___
d. coordinating, organizing, or smooth-running efficiency. ___
Must add up to 10

Appendix D: National Contact Centre Survey Continued

Culture Questions Continued

Q. CultureQuestion3 **[Management Style]**
3) The management style in your organization is characterized by:
a. teamwork, consensus and participation. ___
b. individual risk taking, innovation, freedom and uniqueness. ___
c. hard-driving competitiveness, high demands and achievement. ___
d. security of employment, conformity, predictability and stability in relationships. ___
Must add up to 10

Q. CultureQuestion4 **[Organizational Glue]**
4) The glue that holds your organization together is:
a. loyalty and mutual trust. Commitment to this organization runs high. ___
b. commitment to innovation and development. There is an emphasis on being on the cutting edge. ___
c. the emphasis on achievement and goal accomplishments. ___
d. formal rules and policies. Maintaining a smooth-running organization is important. ___
Must add up to 10

Q. CultureQuestion5 **[SBU Emphasis]**
5) Your organization emphasizes:
a. human development. High trust, openness and participation persist. ___
b. acquiring new resources and creating new challenges. Trying new things and prospects for opportunities are valued. ___
c. competitive actions and achievement. Hitting stretch targets and winning in the marketplace are dominant. ___
d. permanence and stability. Efficiency, control and smooth operations are important. ___
Must add up to 10

Q. CultureQuestion6 **[Critical Success]**
6) Your organization defines success on the basis of:
a. the development of human resources, teamwork, employee commitment and concern for people. ___
b. having the most unique or newest products. It is a product leader or innovator. ___
c. winning in the marketplace and outpacing competition. Competitive market leadership is key. ___
d. efficiency. Dependable delivery, smooth scheduling, and low cost production are critical. ___
Must add up to 10

Appendix D: National Contact Centre Survey Continued

Firm Performance Questions

In this final section, we would like you to consider the present state of your organization. Then indicate for each of the items listed below whether you think they are at a low or high level using the following scale.

1 = very low   2 = low   3 = moderate   4 = high   5 = very high

Q. Question12
When it comes to performance outcomes, how would you rate the following items:

1. Employee commitment to the organization
2. Employee Stress
3. Rate of employee complaints
4. Rate of employee absenteeism
5. Employee morale
6. Employee satisfaction
7. Employee quality of life
8. Incidents of workplace violence
9. Incidents of workplace accidents
10. Employee turnover

Q. Question13
When it comes to operational performance, how would you rate the following items:

1. Service quality
2. Operating efficiency
3. Customer service quality
4. Meeting target times

Q. Question14
When it comes to financial outcomes, how would you rate the following items:

1. Sales growth
2. Product and service innovation
3. Profitability
4. Market share
5. Organizational reputation

Appendix D: National Contact Centre Survey Continued

Firm Performance – What is your work site's:

Percentage of contact centre agents by:
Female (%)   Male (%)

Percentage of contact centre agents by status
(please enter a number, including 0, in each field):
Full time (%)   Part time (%)   Contract (%)

Average contact centre agent hourly rate:
In Canadian Dollars

Average contact centre agent tenure
(please enter a number, including 0, in each field):
Years   Months

Average percentage of employees who voluntarily quit annually
(excluding voluntary retirements / employee buyouts)
In percent

Average percentage of employees dismissed annually
(exclude layoffs, retirements or voluntary quits)
In percent

Average percentage of daily absence
(for reasons other than vacation and holidays):
In percent

Average number of days for initial contact centre agent training:
In days

Average number of days for contact centre agents to become competent on position initially trained for.
In days

Average number of training days per year (excluding initial training):
In days

Average number of calls per contact centre agent per day:
In whole numbers

Average number of electronically monitored calls per week:
In whole numbers

Average call length:
In seconds

Appendix D: National Contact Centre Survey Continued

The last step before the ballot entry form

Age of contact centre
(please enter a number, including 0, in each field):
Years   Months

Number of employees:
In whole numbers

Number of Seats:
In whole numbers

Type of contact centre:
In-house
Outsourced
Both

Nature of contact centre work (you may select more than one):
Customer service
Email/ Chat
Internal support
Sales
Technical help
Other (please specify)

Nature of contact centre application:
Inbound
Outbound
Both

Unionization:
Yes
No
Combination

Geographic location:
Not Applicable
Alberta
British Columbia
Manitoba
New Brunswick
Newfoundland
Northwest Territories
Nova Scotia
Nunavut
Ontario
Prince Edward Island
Quebec
Saskatchewan
Yukon

Appendix D: National Contact Centre Survey Continued

Your work site location:
Urban
Rural

Ownership:
Canada
US
India
Mexico
Britain
Other

Industry Type (you may select more than one):
Energy
Financial Services
Government
Health
Manufacturing
Retail
Telecommunications
Tourism
Transportation
Outsourcer
Other (please specify)

Your Position:
Executive
Human Resource Advisor
Senior Operations Manager
Senior Human Resource Manager
Supervisor
Support Manager
Trainer
Other (please specify)

Organizational Information:
Company Name
Location (city)

Bonus Draw for ipod:
First Name
Last Name
Contact Information

Appendix E: *Firm Performance Measures*

Items used to measure manager perceptions of Firm Performance.

1 = very low   2 = low   3 = moderate   4 = high   5 = very high

Firm Performance – Scale Items

Employee Performance
    1.   Employee commitment to the organization
    2.   Employee morale
    3.   Employee satisfaction
    4.   Employee quality of life

Operational Performance
    1.   Service quality
    2.   Operating efficiency
    3.   Customer service quality
    4.   Meeting target times

Financial Performance.
    1.   Sales growth
    2.   Product and service innovation
    3.   Profitability
    4.   Market share
    5.   Organizational reputation

Appendix F: *Human Resource Management Measures*

Items used to measure manager perceptions of HRM.

1 = Not at all important; 2 = Of little importance; 3 = Moderately important;
4 = Important; 5 = Very important

HRM Questions – Scale Items
Recruitment

Recruitment
1. make an extensive effort when selecting new employees.
2. spend a great deal of money on selection.
3. hire people with general versus specific knowledge.
4. make great effort to select the right person.
5. have high selection criteria to become a new employee.
6. place great importance on the selection process.
7. focus on an employee's potential over the long term.
8. make an effort to use selection methods such as personality or aptitude testing.

Selection
1. have a formal system for communicating the values and systems in the organization to new employees.
2. give consideration to internal over external candidates for job openings and promotions.
3. provide employees with a clear career path within the organization.
4. have a formal system to communicate career aspirations with supervisors.
5. provide a variety of potential positions to be promoted to within the organization.
6. have a commitment to long term employment.

Training
1. make a significant investment in initial training when hired
2. make a significant investment in training after hired.
3. provide opportunities for training to front line employees.
4. provide a variety of different kinds of training.
5. have a systematic training process and formal training programs.
6. place a high priority on training.
7. provide extensive training for general skills.
8. provide formal training to increase skills for promotability.

Job Design
1. have clearly defined jobs and duties.
2. have up-to-date job descriptions.
3. have complete job descriptions that contain all the duties of the job.
4. have job duties defined by the employees rather than by the job description.
5. have broadly designed jobs requiring a variety of skills.

Employee Involvement
1. provide opportunities for employees to use personal initiative.
2. permit enough discretion in doing work.
3. provide for participation in a wide range of issues.
4. have employees at times be invited to participate in problem solving and decision making.
5. encourage employees to make suggestions for improvements within the workplace.
6. provide open communication with all employees to supervisors.
7. have a system of regular, planned team briefings involving senior management.
8. inform all staff about the market position and the competitive pressures faced by the company.
9. create a very cooperative and trustful climate.
10. conduct regular attitude surveys to obtain views of employees.

Compensation and Performance Appraisal
1. have reward practices based on seniority.
2. have a wide range in pay within the same job grade.
3. have a close tie of pay to individual and group performance.
4. conduct formal appraisals on a regular basis.
5. base performance appraisals primarily (>50%) on objective, quantifiable measures.

Appendix G: *Organizational Culture Measures*

Items used to measure managers and employee perceptions of Organizational Culture.

In each set of statements below, you will have 10 points to distribute among the four statements provided. Assign the most points to the statement you think sounds most like your company and the least to the one that sounds the least like your company. You can also assign half points to statements (ie: 2.5) or 0 as long as the total equals 10 for the entire set of statements. There is a calculator at the end of each set of statements to help you keep track.

Organizational Culture – Scale Items
Clan 1.   personal place. It is like an extended family. People seem to share a lot of themselves. 2.   mentoring, facilitating or nurturing. 3.   teamwork, consensus and participation. 4.   loyalty and mutual trust. Commitment to this organization runs high. 5.   human development. High trust, openness and participation persist. 6.   the development of human resources, teamwork, employee commitment and concern for people.
Adhocracy 1.   dynamic and entrepreneurial place. People are willing to stick their necks out and take risks. 2.   entrepreneurship, innovation and risk taking 3.   individual risk taking, innovation, freedom and uniqueness. 4.   commitment to innovation and development. There is an emphasis on being on the cutting edge. 5.   acquiring new resources and creating new challenges. Trying new things and prospects for opportunities are valued. 6.   having the most unique or newest products. It is a product leader or innovator.
Market 1.   results orientated place. A major concern is getting on with getting the job done. 2.   a no-nonsense, aggressive, results-orientated focus. 3.   hard-driving competitiveness, high demands and achievement. 4.   the emphasis on achievement and goal accomplishments. 5.   competitive actions and achievement. Hitting stretch targets and winning in the marketplace are dominant. 6.   winning in the marketplace and outpacing competition. Competitive market leadership is key.
Hierarchy 1.   controlled and structured place. Formal procedures generally govern what people do. 2.   coordinating, organizing, or smooth-running efficiency. 3.   security of employment, conformity, predictability and stability in relationships. 4.   formal rules and policies. Maintaining a smooth-running organization is important. 5.   permanence and stability. Efficiency, control and smooth operations are important. 6.   efficiency. Dependable delivery, smooth scheduling, and low cost production are critical.

Appendix H: *Business Strategy Measures*

Items used to measure manager perceptions of Business Strategy.

In completing this section of the survey, you are identifying the features that best describe your organization's business strategies. Your organization is represented by the one which you work for directly and not the one which you may deliver services to on behalf of your organization.

So based on your thoughts and experiences within your organization, indicate how important you think each item is using the scale below.

> 1 = Not at all important
> 2 = Of little importance
> 3 = Moderately important
> 4 = Important
> 5 = Very important

How important do you think the following items are in determining your organization's approach to business strategy?

Business Strategy – Scale Items
Cost
1. Providing products and services at a price below those of competitors
2. Providing products and services at a low cost
Differentiation
1. Improving the quality of products or services
2. Improving the range of products and services
3. Customizing products and services
4. Developing innovative products and services
5. Switching quickly between production of different products and services requirements
6. Producing products and services for higher-priced segments of the market
7. Developing new techniques and methods to market products and services
8. Penetrating and/or developing new markets

Appendix I: _Individual Practices and HR Bundles_

Results of Regression Analyses for Individual Practices and HR Bundles.

HR Measures	Model 1 Employee Performance		Model 2 Operations Performance		Model 3 Financial Performance	
	Step 1	Step 2	Step 1	Step 2	Step 1	Step 2
	R^2	ΔR^2	R^2	ΔR^2	R^2	ΔR^2
HR Bundle (Factor)	.187	.075	.127	.071	.169	.075
HR Bundle (6 practices)	.187	.076	.127	.071	.169	.076
HR Bundle (41 items)	.187	.076	.127	.072	.169	.074
HR Practice Measures:						
Recruitment	.187	.062	.127	.075	.169	.063
Retention	.187	.051	.127	.031	.169	.042
Training	.187	.050	.127	.042	.169	.046
Job Design	.187	.047	.127	.057	.169	.036
Emp Involvement	.187	.065	.127	.053	.169	.058
Rewards	.187	.025	.127	.033	.169	.053

Note: R^2 control variables; ΔR^2 HRM or individual HR practices.

Appendix J: *Results of the Regression Analyses for HRM and Cost*

Variables	Model 1f Employee Performance		Model 2f Operations Performance		Model 3f Financial Performance	
	B	SE	B	SE	B	SE
Step 2						
HRM (HR Bundle 3)	.331**	(.062)	.317**	(.064)	.385**	(.073)
Step 3						
Constant	2.458**	(.309)	2.314**	(.321)	1.340**	(.367)
Controls						
Size (Natural Logarithm)	-.071**	(.025)	-.039	(.026)	.027	(.030)
Age (Natural Logarithm)	.095*	(.044)	.099*	(.046)	.087	(.053)
Location - Rural	-.093	(.100)	.061	(.104)	-.014	(.119)
Ownership – U.S.	-.040	(.086)	.083	(.090)	-.020	(.103)
Ownership – Other	-.135	(.172)	.207	(.179)	-.011	(.204)
Application – Outbound	-.065	(.152)	.172	(.158)	.101	(.180)
Application - Combination	.011	(.076)	.112	(.079)	.161	(.090)
Type – Outsourced	-.041	(.091)	.026	(.095)	-.068	(.108)
Type – Both (outsourced/in-house)	.196	(.115)	.098	(.120)	-.046	(.137)
Region – Western	.074	(.080)	-.040	(.083)	.169	(.095)
Region – Atlantic	.073	(.089)	.180*	(.093)	.091	(.106)
Union – Yes	-.234*	(.097)	-.115	(.101)	-.079	(.115)
Customer Service	-.058	(.101)	-.025	(.105)	.045	(.120)
Sales	.158*	(.077)	.002	(.080)	.125	(.091)
Technical Help Desk	-.065	(.079)	-.073	(.082)	.007	(.094)
Industry						
Energy	-.248	(.150)	-.165	(.156)	.131	(.178)
Financial Services	.101	(.094)	.141	(.098)	.115	(.112)
Government	.056	(.113)	.031	(.117)	-.434*	(.134)
Health	.112	(.155)	.106	(.161)	.065	(.184)
Manufacturing	.027	(.138)	.033	(.144)	.044	(.164)
Retail	.065	(.117)	.190	(.122)	.197	(.139)
Telecommunications	-.124	(.088)	.019	(.092)	.018	(.105)
Tourism	.064	(.140)	.015	(.146)	.159	(.167)
Transportation	.018	(.157)	-.010	(.163)	-.037	(.186)
HRM (HR Bundle 3)	.352**	(.062)	.309**	(.064)	.379**	(.073)
Cost	-.096*	(.039)	.037	(.040)	.025	(.046)
R^2 (Controls)	.187		.127		.169	
ΔR^2 (HRM)	.075		.071		.075	
ΔR^2 (Cost)	.016		.002		.001	
R^2 (Total Model)	.278		.200		.245	
F (Total Model)	4.147**		2.702**		3.444**	

Note: Unstandardized beta coefficients and standard errors are reported.
$*p < .05$ $**p < .01$
Listwise $n = 307$

Appendix K: *Company 1 Survey*

This survey may be accessed on the web at the following URL:
http://athena.smu.ca/survey/company1/survey.htm

Introduction

Learning more about HR in Call Centres
Wendy R. Carroll, F.C. Manning School of Business, Acadia University, Wolfville, N.S.
Phone: (902) 585-1864, wendy.carroll@acadiau.ca

I am a graduate student in the Department of Management at Saint Mary's University in Halifax, Nova Scotia as well as a faculty member at Acadia University in Wolfville, Nova Scotia. As part of my doctoral studies, I am conducting a research project working under the direction of Dr. Terry Wagar.

The purpose of this study is to learn more about human resources in call centre work environments. The survey asks you questions about your experience and perceptions about your work environment and organization.

For each section of this survey you will find some instructions to guide you through. We anticipate that the survey should take you approximately 10 minutes to complete.

For your participation in our survey, we are able offer you an entry into a draw for a **2GB iPod Nano**. Simply key in your email address at the end of the survey and you will be eligible to win an ipod which will be drawn for upon completion of the project.

This research has been approved by the research ethics boards at Saint Mary's University (REB 07-028) and Acadia University (REB 07-12). This survey is being conducted within your organization and in accordance with existing workplace policies. Although your organization has agreed to take part in the study, you are under no obligation to participate. You can complete this survey at any location by accessing the following URL: http://athena.smu.ca/survey/company1/survey.htm

Your participation in this survey is completely voluntary. All information obtained in this study will be kept strictly confidential.

By clicking on "CONTINUE", you are indicating that you fully understand the above information and agree to participate in this study.

The following sections of this survey are the same as the National Contact Centre Survey (see Appendix D). Please refer to the following sections of that survey for the questions asked:

Business Strategy
HR Practices
Culture
Firm Performance (subjective measures only)

Appendix K: Single Establishment Survey (Company 1) Continued

Age:
16 to 19
20 to 24
25 to 29
30 to 39
40 to 49
50 plus

Sex:
Female   Male

Position:
CSR
Supervisor
Support Mgr
Sr Mgr
Other

Service with the organization:
Less than 6 mos
6 mos to 11 mos
1 to 2 yrs
3 to 5 yrs
6 to 10 yrs
Greater than 10 yrs

Time you expect to stay with the organization:
Less than 6 mos
6 mos to 11 mos
1 to 2 yrs
3 to 5 yrs
6 to 10 yrs
Greater than 10 yrs

Employee Status:
Full time   Part time   Contract   Other

Previous call centre experience:
Yes   No

Current Campaign:
Microsoft
Oberon Media
Bell
XM US
XM Canada
Other

Site Location:
Moncton   India   Kanata

Bonus Draw for ipod:
First Name   Last Name
Contact Information

Appendix L: *Company 2 Survey*

This survey may be accessed on the web at the following URL:
http://athena.smu.ca/survey/company2/survey.htm

Introduction

Learning more about HR in Call Centres
Wendy R. Carroll, F.C. Manning School of Business, Acadia University, Wolfville, N.S.
Phone: (902) 585-1864, wendy.carroll@acadiau.ca

I am a graduate student in the Department of Management at Saint Mary's University in Halifax, Nova Scotia as well as a faculty member at Acadia University in Wolfville, Nova Scotia. As part of my doctoral studies, I am conducting a research project working under the direction of Dr. Terry Wagar.

The purpose of this study is to learn more about human resources in call centre work environments. The survey asks you questions about your experience and perceptions about your work environment and organization.

For each section of this survey you will find some instructions to guide you through. We anticipate that the survey should take you approximately 10 minutes to complete.

For your participation in our survey, we are able offer you an entry into a draw for a **2GB iPod Nano**. Simply key in your email address at the end of the survey and you will be eligible to win an ipod which will be drawn for upon completion of the project.

This research has been approved by the research ethics boards at Saint Mary's University (REB 07-028) and Acadia University (REB 07-12). This survey is being conducted within your organization and in accordance with existing workplace policies. Although your organization has agreed to take part in the study, you are under no obligation to participate. You can complete this survey at any location by accessing the following URL: http://athena.smu.ca/survey/company1/survey.htm

Your participation in this survey is completely voluntary. All information obtained in this study will be kept strictly confidential.

By clicking on "CONTINUE", you are indicating that you fully understand the above information and agree to participate in this study.

The following sections of this survey are the same as the National Contact Centre Survey (see Appendix D). Please refer to the following sections of that survey for the questions asked:

Business Strategy
HR Practices
Culture
Firm Performance (subjective measures only)

Appendix L: Company 2 Continued

Age:
16 to 19
20 to 24
25 to 29
30 to 39
40 to 49
50 plus

Sex:
Female   Male

Position:
Coach/Supervisor
CSR
Project Manager/Coordinator
Sr Mgr
Support Mgr

Service with the organization:
Less than 6 mos
6 mos to 11 mos
1 to 2 yrs
3 to 5 yrs
6 to 10 yrs
Greater than 10 yrs

Time you expect to stay with the organization:
Less than 6 mos
6 mos to 11 mos
1 to 2 yrs
3 to 5 yrs
6 to 10 yrs
Greater than 10 yrs

Employee Status:
Full time   Part time   Seasonal   Other

Previous call centre experience:
Yes   No

Current Campaign:
Inbound   Outbound

Site Location:
Halifax   Saint John   Vancouver

Bonus Draw for ipod:
First Name   Last Name   Contact Information

Appendix M: *Results of Regression Analyses with HR, Co1*

Results of Regression Analyses with HR, Co 1.

HR Measures	Model 1 Employee Performance		Model 2 Operations Performance		Model 3 Financial Performance	
	Step 1	Step 2	Step 1	Step 2	Step 1	Step 2
	R^2	ΔR^2	R^2	ΔR^2	R^2	ΔR^2
HR Bundle (Factor)	.101	.308	.132	.078	.078	.046
HR Bundle (6 practices)	.101	.309	.132	.079	.078	.046
HR Bundle (41 items)	.101	.309	.132	.076	.078	.046
HR Practice Measures:						
Recruitment	.101	.204	.132	.056	.078	.011
Retention	.101	.228	.132	.062	.078	.032
Training	.101	.275	.132	.069	.078	.046
Job Design	.101	.223	.132	.057	.078	.047
Emp Involvement	.101	.304	.132	.059	.078	.061
Rewards	.101	.259	.132	.079	.078	.032

Note: R^2 control variables; ΔR^2 HRM or individual HR practices.

Appendix N: *Results of Regression Analyses with HR, Co 2*

Results of Regression Analyses with HR, Co 2.

HR Measures	Model 1 Employee Performance		Model 2 Operations Performance		Model 3 Financial Performance	
	Step 1 R^2	Step 2 ΔR^2	Step 1 R^2	Step 2 ΔR^2	Step 1 R^2	Step 2 ΔR^2
HR Bundle (Factor)	.251	.222	.201	.176	.136	.177
HR Bundle (6 practices)	.251	.225	.201	.176	.136	.179
HR Bundle (41 items)	.251	.226	.201	.176	.136	.180
HR Practice Measures:						
Recruitment	.251	.187	.201	.130	.136	.174
Retention	.251	.175	.201	.160	.136	.169
Training	.251	.161	.201	.162	.136	.153
Job Design	.251	.134	.201	.121	.136	.093
Emp Involvement	.251	.187	.201	.127	.136	.124
Rewards	.251	.162	.201	.089	.136	.101

Note: R^2 control variables; ΔR^2 HRM or individual HR practices.

Appendix O: *Results of the Regression Analyses for HRM and Cost – Co 1*

Variables	Model 1f Employee Performance		Model 2f Operations Performance		Model 3f Financial Performance	
	B	SE	B	SE	B	SE
Step 2						
HRM (HR Bundle 3)	.584**	(.065)	.246**	(.063)	.160**	(.056)
Step 3						
Constant	.996**	(.363)	2.649**	(.352)	2.616**	(.314)
Controls						
Age (25 to 29 yrs)	-.006	(.156)	.287	(.152)	.102	(.135)
Age (30 plus)	-.089	(.155)	.073	(.150)	.080	(.134)
Service (1 to 2 yrs)	-.082	(.152)	-.143	(.148)	-.040	(.131)
Service (2 yrs plus)	-.507**	(.155)	-.399**	(.150)	-.058	(.134)
Sex (Male)	.087	(.125)	.099	(.122)	.095	(.108)
Employee Status (Part Time)	-.033	(.169)	-.093	(.163)	.032	(.146)
Previous Call Centre Exp (No)	.043	(.127)	-.114	(.123)	-.025	(.110)
Employee Type (Manager)	.252	(.145)	.441**	(.141)	.355**	(.126)
HRM (HR Bundle 3)	.597**	(.068)	.242**	(.066)	.151**	(.058)
Cost	-.053	(.072)	.013	(.070)	.034	(.062)
R^2 (Controls)	.101		.132		.078	
ΔR^2 (HRM)	.308		.078		.046	
ΔR^2 (Cost)	.002		.000		.002	
R^2 (Total Model)	.411		.210		.126	
F (Total Model)	10.773**		4.106**		2.223**	

Note: *$p < .05$ **$p < .01$
Listwise $n = 165$

Appendix P: *Results of the Regression Analyses for HRM and Cost – Co 2*

Variables	Model 1f Employee Performance		Model 2f Operations Performance		Model 3f Financial Performance	
	B	SE	B	SE	B	SE
Step 2						
HRM (HR Bundle 3)	.532**	(.064)	.377**	(.055)	.390**	(.060)
Step 3						
Constant	1.707**	(.298)	2.978**	(.256)	2.340**	(.280)
Controls						
Age (25 to 29 yrs)	-.366**	(.124)	-.137	(.106)	.125	(.116)
Age (30 plus)	-.426**	(.125)	-.126	(.107)	.061	(.117)
Service (1 to 2 yrs)	-.347**	(.110)	-.256*	(.095)	-.314**	(.103)
Service (2 yrs plus)	-.408	(.179)	-.527**	(.154)	-.376*	(.168)
Sex (Male)	.188	(.099)	-.029	(.085)	-.118	(.093)
Employee Status (Part Time)	-.013	(.151)	.003	(.130)	.001	(.142)
Previous Call Centre Exp (No)	-.053	(.105)	.051	(.090)	-.077	(.098)
Employee Type (Manager)	.219	(.144)	.080	(.124)	.174	(.135)
HRM (HR Bundle 3)	.540**	(.065)	.396**	(.056)	.383**	(.061)
Cost	-.033	(.054)	-.077	(.047)	.029	(.051)
R^2 (Controls)	.251		.201		.136	
ΔR^2 (HRM)	.222		.176		.177	
ΔR^2 (Cost)	.001		.010		.001	
R^2 (Total Model)	.474		.387		.314	
F (Total Model)	14.895**		10.392**		7.562**	

Note: **$p < .05$ **$p < .01$
Listwise $n = 176$