

BART DIETZ

# Managing (Sales)People towards Performance

HR Strategy, Leadership & Teamwork



Nilsen

**MANAGING (SALES)PEOPLE  
TOWARDS PERFORMANCE:  
HR STRATEGY, LEADERSHIP  
& TEAMWORK**

Henry Mervin Sachinder (Bart) Dietz



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& TEAMWORK**

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HR strategie, leiderschap & teamwork

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Promotor: Prof.dr. G.W.J. Hendrikse

Overige leden: Prof.dr. J.E. Delery  
Prof.dr. D.L. van Knippenberg  
Dr. F. Poutsma

Copromotoren: Dr. M. Ahearne  
Dr. E. Verwaal

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To Sebastiaan

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# 1. INTRODUCTION

## 1.1 Relevance

Managing the performance of employees, and eventually of organizations, is arguably one of the most critical issues within the management sciences (Griffin, Neal & Parker, 2007). Consequently, an enhanced understanding of why some employees and organizations outperform others is very valuable for both management researchers as well as practitioners (e.g., den Hartog, Boselie & Pauwe, 2004). The field in management science focusing on achieving such insights is Human Resource Management (HR). HR is defined as the “policies, practices, and systems that influence employee’s behavior, attitudes and performance” (Noe, Hollenbeck, Gerhart & Wright, 2007: 2). HR plays a major role in the effectiveness of employees and organizations (e.g., Delery & Doty, 1996; Youndt, Snell, Dean & Lepak, 1996; Huselid, Jackson & Schuler, 1997). The theoretical argument for this relationship is that HR-related “inputs” like HR strategy, training, or selection practices can lead to HR-related “outputs” such as role clarity, motivation or teamwork at the level of employees, which in turn lead to enhanced financial outcomes at the organizational level, such as profit or customer satisfaction (e.g., Guest, 1997). From a more long term perspective, scholars in strategic management have proposed HR to be a potential source of competitive advantage (Barney, 1991; Barney & Wright, 1998).

## 1.2 The field and its current state

Wright and Boswell (2002) have reviewed and synthesized the research field of HR. They classify the field along two dimensions: (1) the level of analysis, and (2) the number of HR practices.

First, two analytic levels are distinguished: the *organization*, and the *individual*. Studies taking the organization as a unit of analysis are also labeled as “macro” HR research. Typically, academic work in the macro-HR tradition is focused on connecting HR-related constructs to organizational performance. (e.g., Huselid, 1995; Youndt et al., 1996; Trevor & Nyberg, 2008). Studies that concentrate on the individual have also been termed “micro” research. In general, research in the micro-HR area has been focusing on the impact of HR practices on the performance of individuals or small work groups (e.g., Becker, Billings, Eveleth & Gilbert, 1996; Cote & Miners, 2006).

Second, the classification differentiates between HR research dealing with a *single* practice like a certain leadership style (e.g., Liden, Wayne, Zhao & Henderson, 2008), or a particular reward system (e.g., Ramaswami & Singh, 2003), and HR research studying the effects of *multiple* HR practices simultaneously (e.g., Ichniowski, Shaw & Prennushi, 1997; Delery & Doty, 1996).

Four main categories of HR-research are distinguished in figure 1.1. First, quadrant I covers research that typically deals with explaining organizational performance based on a set of multiple HR practices. This field is often referred to as “strategic HRM”, or “Industrial Relations”. Second, quadrant II represents research that is focused on explaining organizational performance through a single, specific functional area of HR (e.g., a changing reward system). Third, quadrant III incorporates research concentrating on how a set of HR practices impacts the individual, or a small work group. For instance, Rousseau and Greller’s (1994) study regarding the impact of a system of HR practices impact

on an employee’s relationship with the organization is an example. Fourth, quadrant IV generally contains research that zooms-in on how single HR practices impact individual performance in organizations. This latter stream of HR research has typically been driven by insights from industrial/organizational (I/O) psychology (e.g., theories on leadership, or motivation).

**FIGURE 1.1**  
**Categorizing the field of HRM**  
*(adapted from Wright & Boswell, 2002)*

		Number of HR Practices	
		<i>Multiple</i>	<i>Single</i>
Analytic Level	<i>Organization</i>	Quadrant I <b>CHAPTER 2</b>	Quadrant II
	<i>Individual</i>	Quadrant III	Quadrant IV <b>CHAPTERS 3 &amp; 4</b>

When we assess the current state of the field through the lens of this classification, an observation is that HR research concentrates on: (a) multiple HR practices, and their impact on organizational performance and (b) single HR practices and their impact on job performance of individual employees (Quadrants I and IV in figure: 1.1). At present, both of these areas have yielded a respected body of literature. However, for both subfields scholars have been arguing for important changes in academic thinking about the HR-performance relationship.

*Multiple practices-organizational performance.* This line of literature has matured to a so called configurational, or “systems” perspective. It studies how a set of multiple HR practices relates to organizational performance at the macro level (Lepak & Shaw, 2008). According to this view, HR practices ought to be aligned in two ways. First, HR practices need to be managed as attributes of an HR system, such that coherence and synergy is achieved. The flip side is that “deadly combinations” need to be avoided (Becker, Huselid, Pickus & Spratt, 1997: 43). However, despite many calls for studies into this phenomenon, empirical evidence of this notion is scarce. In fact, scholars have even characterized HR-performance research as under-theorized and in lack of explanatory power to predict performance (Fleetwood & Hesketh, 2006).

*Single practice-employee job performance.* This line of literature has developed to a point where empirical evidence of determinants of job performance is extensively available in the field. However, these determinants have primarily been investigated at the *single* (micro) level of the individual. As a

consequence, authors nowadays increasingly advocate exploring the impact of contextual (macro) factors on the job performance of individuals (Bamberger, 2008). At the core of such studies is the question of what the effect of such factors might be for job performance. In line with this, we argue that an improved insight in the HR-performance relationship of employees demands an enhanced understanding of the role of contextual factors. Two of the most important factors in the contextual environment of employees in organizational life are: (a) leaders, and (b) teams.

### 1.3 Research themes

This dissertation focuses on three HR themes: (1) HR Strategy (how might HR as a system of attributes impact organizational performance?) (2) Leadership (what is the role of leaders in enhancing employee job performance?), and (3) Teamwork (how can teams enhance employee job performance?). With regard to employee job performance, the thesis concentrates on performance of people in sales jobs.

*HR Strategy.* As Lepak and Shaw (2008) outline, strategic HR research is characterized by a macro-level focus. Important themes are alignment and organizational performance. With regard to alignment, two types are distinguished. First, external alignment deals with the fit between organizational strategy and HR practices. Take for instance the case of Regus, a company that rents out office space at premium prices and tries to distinguish itself from its competitors via superior customer service. Regus' strategy is a typical example of what Porter (1985) would call "differentiation". Here, external alignment would entail the development of fit with Regus' HR practices. In this case, it implies hiring, training and compensating service representatives for customer service for instance. As they claim on their website: "We choose the best teams, train them and then let them wow you with their personalized customer service" ([www.regus.com](http://www.regus.com)). Second, internal alignment is about achieving fit between the different HR practices. In the case of Regus' training her reps in customer service for instance, the HR practice of training is very unlikely to transfer into enhanced levels of customer friendly behaviors when reps are not selected (or "chosen") for customer-oriented attitudes, compensated for customer-unfriendly behaviors. Thus, a lack of internal alignment of HR practices (i.e., attributes) implies jeopardizing the organizational performance.

*Leadership.* Den Hartog et al. (2004: 563) describe the important role of the supervisor in achieving HR goals. They argue that leaders (i.e., supervisors) play a key role in the management of employees towards performance. In this dissertation, we are indeed interested in exploring the role that leaders have in enhancing employee job performance. In particular, we zoom-in on the role of transformational leadership in influencing goal orientations and adaptivity of employees.

*Teamwork.* Teamwork has become a fact of organizational life. Indeed, in our present economy, jobs have become increasingly interdependent, meaning that employees more are more depend on other employees for their efforts, information, and resources (Wageman & Baker, 1997). A recent meta-analysis emphasizes the importance of teamwork processes for the performance of employees in teams (LePine, Piccolo, Jackson, Mathieu & Saul, 2008). This dissertation focuses on how a team can serve as a resource for an individual employee, to achieve higher levels of performance. Specifically, we explore the role of team reflexivity in potentially reducing role stress of employees.

*Focus on salespeople.* In micro-HR research, scholars focus on the relationships between job performance of individuals, and its determinants. Understanding these relationships is valuable to theorists as well as practitioners, and hardly anywhere is this more true than in sales. As Vinchur, Schippmann, Switzer and Roth (1998: 586) point out: “The sales job is deserving of special attention for its importance, prevalence, and unique characteristics”. Here “special attention” refers to attention from researchers seeking to explore HR-job performance relationships for salespeople. In this dissertation, we focus on job performance of salespeople because: (1) employees in sales jobs work under a high degree of autonomy, as they enact the role of boundary spanners between the selling firm and the buyer, (2) the degree of rejection inherent to the sales job is exceptional vis-à-vis other professions, (3) ever-increasing customer demands, paralleled by a growing trend towards sales force effectiveness confronts salespeople in today’s economy with continuously rising performance targets (Trailer & Dickie, 2006). In many selling organizations, “acceptable” performance of salespeople is inadequate for achieving organizational success in the marketplace (Dubinsky & Skinner, 2002: 589). Finally, (4) there is a plethora of candidate-constructs to be potentially impacted by leaders and teams, such that job performance for salespeople is enhanced.

#### **1.4 Organization of the thesis**

*Organization.* This dissertation consists of three studies. Chapter 2 is focused on the macro-level and relates HR systems to the performance of organizations. Chapters 3 and 4 focus on the micro-level. Chapter 3 investigates the influence of leaders on the goal-orientations, adaptiveness, and eventually on the job performance of salespeople. Chapter 4 will explore the impact of a team’s reflexivity, and how that impacts salesperson role ambiguity and job performance. Finally, chapter 5 synthesizes the three studies in an overall conclusion and discussion.

*Expected contribution.* The dissertation sets out to contribute to the theory as well as to the practice of management (Van de Ven, 2007). *First*, in line with Locke and Golden-Biddle (1997), who argue that the most valuable theoretical contributions are made when inadequacies of existing theories are identified, theoretical arguments are integrated into these literatures, and novel theories are developed, this dissertation contributes to the theory of management. Amongst others, the dissertation (a) points out inadequacies of the extant literature to explain: the HR systems-performance association, how adaptivity and goal orientations are influenced by leaders, and how role ambiguity of individuals may be impacted. In addition, (b) it integrates: system of attributes and complementarity theories into existing literature on strategic HR, literature on transformational leadership to existing work on adaptivity and goal orientations, and literature on team reflexivity and team performance to existing work on role ambiguity and job performance of individuals. Finally, (c) the dissertation develops and tests various theories: a theory of HR strategy as a system of complementary attributes impacting performance, a theory of how transformational leaders may influence adaptivity and goal orientations, as well as a multi-level theory of how between-team differences influence job performance and role ambiguity of individuals. Thus, in general we focus on the “how” and the “what” of the HR-performance relationship (Whetten, 1989). *Second*, the thesis aims to contribute to management practice by providing empirical evidence of factors that impact the performance of employees and

organizations. Hence, managers can utilize this knowledge in practice, as it provides them with “evidence-based” insights on HR and performance (Rynes, Giluk & Brown, 2007). The dissertation may change practice in HRM in two ways: First, it may possibly make the achievement of complementarity between various HR attributes a key priority of those responsible for strategic HR in organizations towards, and aid them to accomplish this. Second, it could change the managerial focus of those responsible for managing (sales)people from concentrating managerial policies that directly impact individual workers, towards a more indirect focus that assumes a vital role for the leaders and teams that surround those individual workers in modern-day organizations.

## 2. HR STRATEGY: EFFECTS OF COHERENCE ON FIRM PERFORMANCE\*

### 2.1. Introduction

For both academics and practitioners, an insight in the relationship between Human Resource Management (HRM) and performance is essential. In exploring this link, HRM scholars have arrived at a point where universalistic performance effects of *HRM practices* are well established but also criticized. In an effort to move beyond a best-practice mode of theorizing, an emerging stream of literature proposes *systems* of HRM practices to have synergic performance effects (e.g., Delery & Doty, 1996). Scholars from the latter research stream argue that systems of HRM practices in so called “High Performance Work Systems” (HRM Systems) lead to significant effects on business performance, and hence propose that “ideal” systems of HRM practices (i.e. best-systems) lead to superior business performance (Becker & Huselid, 1998).

Taking stock of the field after more than a decade of theoretical and empirical work, the body of evidence of synergic performance effects of HRM systems remains unsatisfactory and copes with “deficient empirical support” (Martín-Alcázar, Romero-Fernández and Sánchez-Gardey, 2005: 645). We have two arguments for this observation: *First*, while HRM systems have typically been composed of HRM practices (e.g., Ichniowski et al., 1997; Delery & Doty, 1996), the attributes of HRM systems have recently been proposed to be conceptualized from additional levels of abstraction. Beyond the level of practices, HRM attributes have recently been theoretically classified into *practices*, *policies* and *principles* (Colbert, 2004). Yet, empirical studies on the performance effects of HRM systems have merely been performed on practice-level HRM systems. Thus, an empirical investigation of HRM systems on the level of policies and principles remains unexplored. *Second*, while scholars have indeed proposed that HRM attributes, when aligned in a coherent system, have synergic effects on business performance, the theoretical rationale of these systems remains “underexplored” (e.g., Kinnie, Swart & Pycell, 2005). Delery and Doty (1996) have called upon HRM scholars to adopt a “configurational mode of theorizing” and sparked a research stream in search of ideal HRM systems (Becker & Huselid, 1998). Hence, whereas authors have argued that HRM systems “more accurately reflect the multiple paths through which HRM policies will influence successful strategy implementation” (Becker & Huselid, 1998: 55), and HRM systems should be “aligned,” (Becker & Huselid, 1998), represent “fit” (Wright & Snell, 1998) and need to be “configurational” (MacDuffie, 1995), a theory-driven rationale for the composition of HRM systems is lacking.

The present study aims to advance the field by (a) providing a theoretical underpinning of HRM as a system of policy-level attributes, and (b) an empirical exploration of the direct and synergic performance implications of calculative and participative HRM policies. The paper flows as follows: first, we will provide a conceptual background on HRM systems literature. Second, we propose system of attributes theory as a theoretical foundation for HRM systems. Third, we organize the HRM systems

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\* This chapter is based on Dietz, Ligthart, and Poutsma (2007)

literature in practice-level and policy-level systems. Fourth, we develop hypotheses, describe our methodology and present results. Finally, we discuss our findings.

## 2.2 Coherence

### 2.2.1 Conceptual Background

In the mid 1990's, several HRM scholars argued that HRM is more likely to influence business performance when conceptualized as a "system," or "configuration" (e.g., MacDuffie, 1995; Delery & Doty, 1996). As a consequence, authors have since then been developing numerous HRM systems (for an overview, see: Becker & Huselid, 1998) and until the present, the extant body of literature on HRM Systems is growing rapidly (e.g., Kintana, Alonso & Olaverri, 2006; Evans & Davis, 2005). A common theme in the HRM systems literature is the exploration of performance effects of "ideal type" HRM systems. Delery and Doty (1996) have called this perspective the *configurational* mode of theorizing and advocated "horizontal fit" between practices. The central idea is that some ideal type HRM configurations lead to better performance than others. Consequently, researchers in HRM have been developing numerous "ideal" designs. In their quest for empirical evidence for business performance of these configurations, a broad variety of ideal designs have emerged, such as: "Traditional," "Innovative," "Calculative," "Participative," "Internal" or "Market Type" HRM systems (Ichniowski et al., 1997; Gooderham, Nordhaug & Ringdal, 1999; Delery & Doty, 1996). Whereas HRM systems are typically hypothesized to generate positive effects on business performance, and scholars have argued that "firms realize the largest gains in productivity by adopting clusters of complementary practices" (Ichniowski et al., 1997: 295), the broad stream of HRM systems literature has yielded mixed, conflicting and (generally) disappointing results (Delaney & Huselid, 1996; Delery & Doty, 1996; Ahmad & Schroeder, 2003).

Scholars have been proposing multiple arguments for these unsatisfactory performance effects, such as the level of analysis (i.e., which parts of the workforce) or the measurement methods in operationalizing HRM systems (Delery, 1998). Recently, authors have also pointed in the direction of the "system architecture" (e.g., Colbert, 2004). Taking one step back and exploring the important issue of how researchers have been designing HRM systems, one observes that scholars have been developing HRM systems in two (sub-optimal) ways.

A *first* group of researchers takes an empirical approach, and argues that the configurations used by high performing firms are "ideal types" (e.g., Delery & Doty, 1996; Ahmad & Schroeder, 2003). Empirically, the deviation of a firm's HRM system from an "ideal profile" is the independent variable that is hypothesized to predict business performance. This data-driven approach assumes that more than one ideal type configuration can exist. The latter notion has also been called "equifinality." The equifinality assumption – the assumption that there are multiple equally effective organizational forms (Doty, Glick & Huber, 1993), is a key concept in the contingency perspective (Schoonhoven, 1981; Grezov & Drazin, 1997) and in the configurational perspective (Delery & Doty, 1996). From the

perspective of equifinality, HRM scholars have been investigating multiple configurations that have similar performance consequences.

A *second* research stream has yielded several definitions of ideal type HRM systems. These definitions face problems. First, a common theme in this line of research, is that HRM systems should be “horizontally aligned” so that *synergy*, *fit*, or *complementarity* can blossom (Delery & Doty, 1996). The alignment process is concentrated on each HRM attribute separately. Consequently, HRM variables are aligned sequentially and a “set of best practices”, instead of a coherent “best system,” is the end result. Second, the relationship between HRM practices is weakly specified (e.g., substitutes or complements). A theoretically driven approach to the rationale behind these systems (i.e., what constitutes “fit”) and why specific practices are selected for certain HRM systems is lacking. This creates problems in predicting combined effects, such as substitutability’s and synergies.

The first group of scholars has attempted to identify ideal HRM systems based on data, while the latter research stream lacks an alignment concept. In addition to these shortcomings of both streams, the extant literature on HRM systems is characterized by a lack of unity in the specification of HRM practices (Kaarsemaker & Poutsma, 2006). In what follows, we address these issues in more depth by substantiating the configurational mode and adding an additional level of abstraction (i.e., the HRM policy level) to the debate on systems of practices.

### 2.2.2 HRM as a System of Attributes

In economic literature, organizations have been argued to be systems, composed of attributes (Milgrom & Roberts, 1990; Holmstrom & Milgrom, 1994; Ichniowski et al., 1997). Within the *system of attributes* (SOA) paradigm, an *attribute* represents an organizational aspect (for a more elaborate discussion of this theory, see Appendix A). The attributes together form a system, because the *payoffs* associated with the level of one attribute depend on the levels of all the other attributes. Attributes are therefore *interdependent*.

Applied to HRM, an HRM practice such as “selection” is an attribute of an HRM system. Thus, the SOA view postulates that HRM systems are built-up out of interdependent attributes that --in combination-- form a system. The central premise of this perspective is that the payoffs of attribute choices (i.e., the business performance effects of alternative HRM actions) are dependent on the choices of *other* attributes. For instance, payoffs of HRM strategies of the compensation and benefit ‘attribute’ (e.g., team-based versus individual) are interdependent on the strategies of the staffing system (e.g., strong versus moderate screening for team skills).

Recognizing that an HRM system as a whole can yield varying payoffs, depending on the choice of attribute values, SOA literature argues that successful organizations have *coherent* systems of attributes (i.e., such that the attributes are complementary), whereas organizations typically fail when there is a misfit between the values of the attributes (Milgrom & Roberts, 1990). From an HRM perspective, the challenge is to select attribute values that optimize business performance. Following this line of reasoning, a fundamental principle in the perception of HRM as a system of attributes is that *coordination* of this system adds to organizational effectiveness. While “only a small percentage of the theoretically possible configurations actually occur in practice.” (Sheppeck & Militello, 2000: 6), HRM

practices (i.e., attributes) have been described to co-exist in four ways in an HRM system (Delery, 1998): (1) *additive*: when the effectiveness of the HR system is the simple accumulation of the effectiveness of all HR practices, (2) *substitutable*: when the effectiveness of one HR practice, can also be achieved by another HR practice, (3) *negatively synergic*: when the combined effectiveness of HR practices is less than the simple accumulation of the effectiveness of all HR practices, and (4) *positively synergic*: when the combined effectiveness of HR practices is more than the simple accumulation of the effectiveness of all HR practices. The latter structure illustrates what HRM researchers have been calling “horizontal fit” (Delery & Doty, 1996). The horizontal fit hypothesis proposes that coordination of HRM practices can lead to *complementarity* in terms of the effects on business performance (Milgrom & Roberts, 1990; Ichniowski & Shaw, 2003).

For coordination towards a coherent system, it is important to establish the “objects” of coordination (i.e., HRM system attributes). In line with this, researchers have been proposing to take an architectural approach to these HRM attributes (e.g., Wright & Snell, 1998; Colbert, 2004).

### 2.2.3 Practices, Policies, Principles

In their pursuit for ideal systems of HRM practices, researchers have generally been focusing on HRM *practices* as the attributes of HRM configurations. Whereas HRM systems have been formulated in terms of “many different ideal possibilities” (Martín-Alcázar et al., 2005: 637), the level of abstraction of these systems has systematically been on the level of practices. However, recently scholars have suggested that HRM systems can be theorized on multiple levels of abstraction, *beyond* HRM practices (e.g., Colbert, 2004; Kaarsemaker & Poutsma, 2006). More specifically, Colbert (2004) distinguished between: (1) HRM practices, (e.g., variable compensation schemes, quality circles or newsletters), (2) HRM policies (e.g., team-based work systems, incentive pay or suggestion systems), and (3) HRM principles (e.g., the explicit communication of the necessity of employee participation in all aspects of a business).<sup>1</sup> Using these levels of abstraction as a lens for HRM systems literature, the potential performance effects of HRM *policies* (i.e., subsystems of practices) and HRM *principles* (i.e., subsystems of policies) have received less research attention and remained largely unexplored in the extant literature.

On the lowest level of abstraction, we find HRM attributes to exist as “HRM practices” are well-known in the HRM literature (Pfeffer, 1994; Becker & Gerhart, 1996). The wide range of HRM practices has been classified by multiple authors. For instance, Stavrou (2005) categorizes four types of HRM practices: (a) Staffing, (b) Training and Development, (c) Compensations and Benefits and (d) Communication and Participation. From the perspective of the system of attributes theory, HRM practices represent attributes. Also, Schuler and Jackson (1987: 212) suggested a typology of HRM attributes on the practice level: (a) Planning Choices, (b) Staffing, (c) Appraising, and (d) Compensating and Training. A common characteristic of these attributes is that they form the “available array to execute policies” (Colbert, 2004: 345). When perceived from the system of attributes

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<sup>1</sup> In this paper, we only focus on HRM practices and HRM policies. HRM principles are guidelines on how to treat and value people and function as higher-order guiding principles for the coordination of HRM policies. Thus, HRM principles govern the coordination of HRM policies.

perspective, (a) the budgets for training, and (b) intensity of personnel screening are two examples of practice-level attributes of an HRM system (e.g., Ichniowski et al., 1997).

HRM policies serve as governance mechanisms that drive the selection of HRM practices, needed to execute these policies. From a system of attributes perspective (Milgrom & Roberts, 1990), an HRM policy is a sub-system of practice attributes. When HRM policies are the attributes of an HRM system, coordination of this system (directed by an HRM principle) becomes less complex due to the fact that HRM policies serve as guideposts for HRM practices.

From a policy level of abstraction, HRM attributes have been commonly characterized by a dichotomous classification in two dominant streams of HRM research. First, *calculative HRM policies* represent policies that are geared to minimize labor costs, and improve efficiency. These policies are often referred to as “hard” HRM and treat employees as resources that need to be controlled in order to achieve company goals (Legge, 1995). The calculative perspective emphasizes the role of measurement and control (of outputs) in managing employees, a process which economists have called “metering” (Alchian & Demsetz, 1972). In fact, HR theorists have also labeled this type of policy as a “control” policy (Arthur, 1994). Whereas the fundamental premise of calculative HR is that it will enhance performance because it stimulates workers towards efficient behaviors, it has been argued to have dysfunctional effects on performance when organizations inadequately link rewards of employees to their productivity (Alchian & Demsetz, 1972). Second, *participative HRM policies* are focused on achieving an involved and intrinsically motivated workforce. They are called “soft” HRM policies. Under this second approach, employees are seen as a source of competitive advantage and are treated as important and valuable resources. Communication and participation are seen as key factors for letting employees realize their potential. The participative HRM policy is “characterized by efforts to create and communicate a culture of partnership” (Gooderham et al., 1999: 511). This policy is consistent with the “commitment” HRM policy (Arthur, 1994).

Whereas the calculative HRM policy seeks to control employee behaviors, the participative policy aims to align organizational and employee goals (Arthur, 1994; Liao, 2005). This duality in HRM policies has earned both conceptual and empirical recognition. Conceptually, researchers have called these *calculative* and *participative* policies “an inherent duality” of HRM (Gooderham et al., 1999: 510). Following this duality, researchers in HRM have long argued that practitioners should strategically align HRM practices to configure HRM policies that are *either* highly calculative or highly participative. However, calculative and participative HRM are two distinctive attributes. Gooderham et al. (1999) have argued that: “although the calculative and participative approaches constitute two distinct sets of HRM practices consisting of dissimilar activities and techniques, they should not be conceived of as representing two different ends of a continuum; rather, they are separate (orthogonal) concepts (512).” Hence, calculative and participative HRM are *policy-level* attributes, or: “sub-systems” of an HRM system. Also, empirically, scholars have also found that these attributes form the two most important HRM policies (Huselid, 1995).

#### 2.2.4 HRM Policies and Performance

Gooderham et al. (1999; 2006) have performed seminal work in exploring the factors that lead to the adoption of calculative and participative HRM policies. However, to our knowledge, the

*consequences* of calculative and participative HRM policies (in particular, an empirical investigation of the effects on business performance) have remained unexplored up to the present. Moreover, scholars claiming complementarity effects of other HRM attributes (e.g., Delery & Doty, 1996; Ichniowski et al., 1997) have remained unsuccessful in demonstrating empirical evidence. A potential explanation for these disappointing results could be that HRM system researchers have traditionally taken practice-level attributes as the unit of analysis to develop an “ideal type.” On the other hand, Gooderham et al. (1999) have theoretically developed two policy-level attributes. In other words, whereas others have looked at potential complementarity between practices, we are looking at: (a) the performance effects of HRM policies (i.e. direct effects), and (b) potential complementary performance effects between HRM policies (i.e., interaction effects). Thus, almost a decade after their conception, the effects on business performance remain unexplored. In the following section, we develop hypotheses for these performance implications.

## 2.3 Hypotheses

We suggest direct effects on relative business performance from the two HRM policies and two indirect (or moderator) effects: the effect of an individual calculative policy as well as the effect of a collective calculative policy on business performance is moderated by a participative HRM policy.

### 2.3.1 Direct Effects

The extant literature on strategic HRM agrees that the HR function has the highest potential to contribute to business performance when it assumes the role of a “strategic business partner” (e.g., Wright & Snell, 2005; Lawler, 2005; Jamrog & Overholt, 2004; Lawler, Levenson & Boudreau, 2004; Ulrich & Beatty, 2001; Barney & Wright, 1998). A closer look at what this entails shows that HRM in its role as a business partner: (a) should focus on the *long term*, instead of the short term, and (b) ought to focus on organizational *processes*, instead of people (Ulrich, 1997: 24). More recently, it has been argued that the business partner role requires HRM to provide “strong input and direction to the formation of business strategy” (Lawler, 2005: 166). Whereas HRM practices are primarily focused on people, HRM at the (more strategic) policy level indeed takes the organization as the object of analysis. Thus, HRM attributes at the policy level (i.e., calculative and participative HRM) are likely to lead to firm performance.

***Calculative HRM policy.*** Gooderham et al. (1999: 510) argued that calculative HRM policies are “efficiency seeking” and aimed to supply the production activities with the necessary input of human resources. More recently, scholars have explored the performance consequences of “HRM Control” strategies (Liao, 2005). From this perspective, (individual) human behaviors are monitored and controlled. Potential deviations from efficient behaviors are relatively transparent and can be easily acted upon by management. Thus, a calculative HRM policy is likely to funnel workforce efforts into goal-directed behaviors, while at the same time behaviors that are undesirable for business performance are a transparent target for management intervention. Therefore, we forward the following hypothesis:

*Hypothesis 1a. An individual calculative HRM policy has a positive effect on business performance.*

As we enter an era in which individuals are more and more organized in teams to achieve business performance, collective incentives become more important. In addition, empirical evidence in the financial participation literature shows positive impacts on performance from collective calculative HRM policies, such as profit sharing and employee share ownership. Indeed, many studies report these findings (e.g., Conte & Svejnar, 1990; Kruse, 2002; Kruse & Blasi, 1995; Sesil, Kruse & Blasi, 2001). When organizations have a collective calculative HRM policy, it is likely that teams and/or work groups inside organizations will be more inclined to engage in more efficient teamwork behaviors, and will for instance become more reflexive (Schipper, Den Hartog, Koopman & Wienk., 2003). Therefore, we forward the following hypothesis:

*Hypothesis 1b. A collective calculative HRM policy has a positive effect on business performance.*

**Participative HRM Policy.** From the perspective of the participative HRM policy, it is argued that employees are viewed as active partners and core assets. And “ideally, they are viewed as participants in a project premised on commitment, communication and collaboration. The participative emphasis is hence characterized by efforts to create and communicate a culture of partnership” (Gooderham et al., 1999: 511). More recently, Ordiz-Fuertes and Fernández-Sánchez (2003) have found “high-involvement” practices to be adopted by high performance firms. A participative HRM policy is based on an emphasis on management-workforce communication. Consequently, individuals are better informed on the goals of the organization. This is likely to increase commitment to these goals, as well as motivate alignment between organizational and individual goals. Therefore, we forward the following hypothesis:

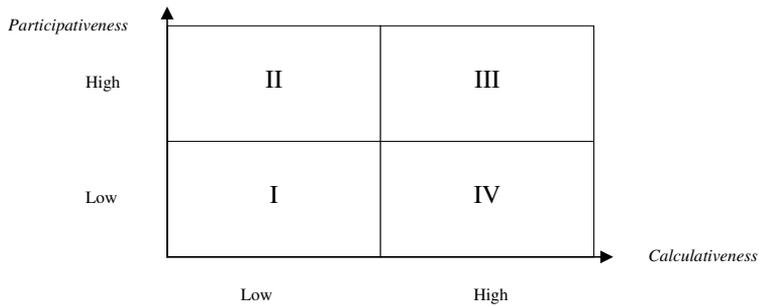
*Hypothesis 2. A participative HRM policy has a positive effect on business performance.*

### 2.3.2 Synergic Effects

Hypotheses 1 and 2 described the performance effects of calculative and participative HRM policies in isolation. We now focus on the potential synergic effects of these policies as attributes in an HRM system. To conceptualize these attributes, we draw on literature in strategic management, which has argued that organizations possess so called “complementary resources” that represent various organizational attributes which have limited ability to create competitive advantage in isolation, but in combination with other attributes can enable a firm to realize its full competitive advantage (Amit & Schoemaker, 1993; Barney, 1995). The theoretical explanation of this argument is twofold: First, the interaction of calculative and participative HRM policies represents a complex configuration of organizational capital resources which is difficult to imitate by other firms (Barney, 1991). Second, the simultaneous presence of both resources leads to value-creating synergy in the organization (Verwaal,

Verdu & Recter, 2008). Ahmad and Schroeder (2003) applied this notion to strategic HRM, and argued that “the variation in business performance explained by an HRM system should be significantly greater than that explained by the individual HRM practices in that system.” From the perspective of HRM as a system of attributes, we argue that an HRM system can be conceived as a system in which two attributes co-exist: (1) “*calculativeness*” (on both the individual and collective level), and: (2) “*participativeness*.” Figure 2.1 shows these two attributes.

**FIGURE 2.1**  
**Participative and Calculative HRM as two Attributes of a System**



These two attributes of strategic HRM need coordination. When an HRM system is characterized by a highly calculative HRM policy (quadrants I and IV), economic theory argues that people will be more inclined to focus their efforts on those activities that lead to incentives (Eisenhardt, 1989). However, when this calculative HRM policy is complemented with a highly participative HRM policy (quadrant IV), the workforce is better informed about corporate goals and employees have a better insight in how their behaviors can help to realize business objectives. On the other hand, when employees work under a highly calculative HRM policy, in combination with an HRM policy that is only marginally participative (quadrant I), employees have incentives to focus on specific tasks, but lack an understanding of how their work can best benefit the business. Hence, a calculative HRM policy is more likely to lead to business performance when complemented with a participative HRM policy (quadrant III).

Building on system of attributes theory (Milgrom & Roberts, 1990), we argue that these two HRM policies have interactive effects. First, in an efficient equilibrium situation, a calculative and a participative HRM policy are *complementary*, and *synergy* between these two takes place (Milgrom & Roberts, 1990). Milgrom and Roberts (1995) have proposed the notion of complementarities and defined activities as complementary if: “*doing (more of) any one of them increases the returns to doing (more of) the others* (p. 181).” Agency theory prescribes that employee’s behaviors in line with incentives is more likely to occur when these employees are well-informed about these incentives (Eisenhardt, 1989). Thus, implementing a more calculative HRM policy could impact the returns of a more participative HRM policy. In terms of agency theory: an outcome-oriented contract becomes more

efficient in combination with information (a “purchasable commodity”) about the outcomes that are expected.

In the financial participation literature on the impact of collective incentive schemes, the issue of complementarity between financial participation and other forms of participation has received much attention (e.g., Kalmi, Pendleton & Poutsma, 2006). There are several reasons why HRM policies that are highly based on financial participation can be complementary to participative practices. In themselves, financial participation plans are vulnerable to a free-rider effect: each employee may rely on other workers to deliver the enhanced output and performance necessary to bring about the incentive payments. This is likely to be a significant limitation of financial participation plans in all but the smallest work environment (e.g., Oyer, 2004). Participation schemes may ameliorate these free rider problems by encouraging a co-operative corporate culture (Weitzman & Kruse, 1990), and/or mutual monitoring (Kandel & Lazear, 1992). At the same time, financial participation can provide an incentive for employees to share information, thereby contributing to the effectiveness of work groups, and related activities such as quality circles (e.g., Ben-Ner & Jones, 1995; MacDuffie, 1995). A collective calculative HR policy represents a “metering” system for team production, whereas a participative HR policy reduces information costs for organizational members (Alchian & Demsetz, 1972). Based on this reasoning, we forward the following hypotheses:

*Hypothesis 3. The positive effect of an individual calculative HRM policy on business performance is stronger for organizations that have a high participative HRM policy than for organizations that have a low participative HRM policy.*

*Hypothesis 4. The positive effect of a collective calculative HRM policy on business performance is stronger for organizations that have a high participative HRM policy than for organizations that have a low participative HRM policy.*

## **2.4 Method**

### **2.4.1 Data**

The sample of the present study has been derived from the Euronet-Cranfield survey on European Human Resource Management (i.e., CRANET), in 1999. The goal of this survey was to draw representative national samples of multiple countries in Europe. The strategy was to mail out a well-translated survey to HRM managers of medium and large-scale companies in the private sector (100 or more employees). In the survey, HRM managers were asked to respond on dichotomous items that operationalized organizational HRM practices. Companies participating in this survey were independent single-establishment companies, as well as foreign subsidiaries (For a detailed description of the sampling procedure, see: Brewster, Mayrhofer & Morley, 2004).

Respondents were asked to return their completed survey via mail to the coordinating business school in each specific country. Researchers in all countries distributed their surveys to the Cranet coordinating office in the U.K. for data-entry. Following Gooderham et al. (1999), we only included

countries that were European Union (EU) member states. For the databases per country, firms were excluded from further analyses that were: (a) public or semi-public, and (b) employed less than 100 employees. While response rates for the individual countries were relatively low, and generally varied between 12 and 35 percent, analyses indicate no non-response bias. Table 2.1 presents an overview of the number of firms for the main explanatory factors and their categories within the dataset.

**TABLE 2.1**  
**Sample Descriptives**

<i>Explanatory factors/categories</i>		<i>Number of Firms</i>
EU-country	Finland	96
	Sweden	122
	Denmark	171
	Ireland	106
	Netherlands	50
	Germany	263
	Belgium	96
	Austria	84
	France	127
	Italy	42
	Spain	112
	Portugal	72
	Greece	32
<i>United Kingdom (reference category.)</i>		404
Industry	Construction	97
	Transportation	83
	Banking and finance	118
	Chemicals	153
	Other industries (e.g. services)	429
	<i>Manufacturing (reference category.)</i>	897
N		1777
Unionization	Mean percentage	40.14 (SD: 33.57)
Firm Size	Median (mean lnsize)	426 6.25 (SD: 1.10)

#### 2.4.2 Operationalization

**HRM policies.** First, we distinguish three operationalizations of HRM policies: the individual calculative HRM policy, the collective calculative HRM policy, and the participative HRM policy.

*Individual calculative HRM policy:* Based on the principle of monitoring and control of individual

performance a 'Control' HRM system is developed. Following Gooderham et al. (1999) an individual calculative HRM policy is defined to consist of the following attributes: (1) individual performance appraisal system in operation, (2) formal evaluation of training effectiveness, and (3) individual-level performance related rewards. *Collective calculative HRM policy*: Just like the individual calculative HRM policy, also the collective calculative HRM policy is based on the principle of monitoring and control of performance. However, in this case employees are perceived as a *collective* and therefore should receive collective returns and are co-owners of the firm.<sup>2</sup> Following Poutsma, Ligthart and Veersma (2006), we operationalize this HRM policy to consist of the following attributes: (1) employee share options, (2) group bonus, and (3) profit sharing. *Participative HRM policy*: Based on the principle that human resources are an important asset with tacit knowledge and skills a 'Commitment' HRM system is developed, where employees are informed about the business case and are able to make joint decisions. Following Gooderham et al. (1999) we call this a Participative HRM policy which consists of: (1) formal strategy briefings, (2) written mission statement, and (3) written employee communication policies.

***Business performance.*** Second, we operationalize our dependent variable: *Business performance*. Following Laursen and Foss (2003), we adopted a multidimensional definition of business performance covering seven performance indicators. We included financial indicators: (1) gross revenue relative to costs, (2) stock market performance, and (3) profitability, as well as non-financial indicators: (4) innovation rate, (5) productivity, (6) service quality, and (7) market-time relative to other organizations in the company's industry-sector. The use of perceptual measures of business performance is consistent with prior research in strategic HRM (e.g., Delaney & Huselid, 1996; Jap, 2001; Stavrou, 2005).<sup>3</sup>

***Control Variables.*** We used two types of control variables: (a) institutional factors: *country* and *unionization*, and (b) non-institutional factors: *industry* and *firm size*. The country factor specified all member states of the European Union (EU), except Luxembourg in 1999. Unionization was measured as the percentage of the workforce that was a member of a labor union (*Mean*: 40,1%; *SD*: 33,6%). The industry factor indicated six basic industries: (1) *Construction*, (2) *Transportation*, (3) *Banking & Finance*, (4) *Chemicals*, (5) *Manufacturing*, and (6) *Other*. Firm size was measured as the logarithm of the number of individuals employed by a business (*Median*: 426).

#### 2.4.3 Scaling

***Procedure.*** The scales of the study were constructed in two steps. *First*, we dichotomized (in values "0" and "1") the responses to the ordinal survey items (see appendix B) in such a way that positive scores on these items represent the existence of the HRM attribute in the respondent's

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<sup>2</sup> This HRM policy is also referred to in the literature as an 'ownership' HRM system (e.g., Ben Ner and Jones, 1995).

<sup>3</sup> Stavrou (2005) presents a detailed argumentation for the use of perceptual measures of firm performance in international HRM research.

business.<sup>4</sup> *Second*, we calculated the scales for each HRM-policy by taking the sum of the binary item values.

**Reliability and Scalability.** For this study, we analyze *calculative* and *participative* HRM policy scales (Gooderham et al., 1999), as well as our *collective calculative* HRM policy and *business performance* scale. We assess reliability (i.e., Cronbach's Alpha) and homogeneity of the scales using the scaling procedure of Mokken's nonparametric latent trait model (Mokken & Lewis, 1982; Molenaar & Sijtsma, 2000). In this analysis, we make use of the "Mokken Scaling Program" (MSP; Molenaar & Sijtsma, 2000). The Mokken scaling approach is a probabilistic version of the deterministic Guttman model, which allows for the possibility that a subject responds positively to an item and negatively to another, "easier" item. In contrast to reliability analysis that assumes unidimensionality, Mokken's approach calculates an internal scaling criterion, or so called: "Loevinger's H-coefficient," (H) to evaluate the unidimensionality of a pair of items and the scale directly. H signifies the deviation of the observed data structure of the scale from the perfect scalogram structure as incorporated in Guttman's approach. Following Mokken (1971), Molenaar and Sijtsma (2000) considered a set of items as a "weak" scale if  $0.3 \leq H < 0.4$ , whereas "reasonable" scalability is reached if  $0.4 \leq H < 0.5$ , and "strong" scalability is considered if  $0.5 \leq H < 1.0$ . A set of items with  $H < 0.3$  was considered to be "unscalable."

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<sup>4</sup> For example, when respondents were asked whether effectiveness training was monitored, we recoded all "yes" responses as "1" and all "know" and "don't know" responses as "0."

**TABLE 2.2**  
**Scalability and Reliability of the Scales for Calculative Policies, Collective Incentive Schemes, and Participative HRM-practices**

<i>Scales\items</i>	<i>MSP*</i>		<i>Reliability analysis**</i>		
	<i>Mean</i>	<i>H<sub>wgt</sub></i>	<i>Corr.</i>	<i>R<sup>2</sup></i>	<i>Cronbach's Alpha</i>
<i>Calculative scale</i>	<i>N= 1777</i>	<i>.40</i> <i>Rho: .85</i>			<i>.80</i>
Ca8 Individual rewards: manual	.32	.32	.32	.43	.80
Ca7 Individual rewards: clerlc	.35	.47	.52	.63	.78
Ca6 Individual rewards: prof	.45	.43	.54	.63	.78
Ca5 Individual rewards: mngt	.50	.35	.44	.44	.79
Ca10 Formal evaluation training: 2	.50	.30	.38	.49	.80
Ca4 Performance appraisals: manual	.55	.35	.44	.43	.79
Ca9 Formal evaluation training: im	.62	.33	.41	.50	.80
Ca3 Performance appraisals: clerlc	.65	.48	.59	.69	.77
Ca2 Performance appraisals: prof	.72	.54	.62	.73	.77
Ca1 Performance appraisals: mngt	.72	.47	.52	.57	.78
<i>Collective Incentive Scale</i>	<i>N=1777</i>	<i>.30</i> <i>Rho: .84</i>			<i>.79</i>
Cis4 Employee share options: manual	.14	.36	.49	.92	.77
Cis3 Employee share options: clerlc	.15	.36	.50	.95	.77
Cis2 Employee share options: prof	.17	.35	.52	.88	.77
Cis11 Group Bonus: clerlc	.18	.24	.35	.67	.78
Cis10 Group Bonus: prof	.20	.23	.35	.65	.78
Cis12 Group Bonus: manual	.22	.16	.24	.46	.79
Cis9 Group Bonus: mngt	.23	.18	.28	.36	.79
Cis8 Profit Sharing: manual	.23	.34	.53	.84	.76
Cis7 Profit Sharing: clerlc	.25	.35	.55	.89	.76
Cis1 Employee share options: mngt	.27	.31	.46	.54	.77
Cis6 Profit Sharing: prof	.29	.36	.53	.81	.76
Cis5 Profit Sharing: mngt	.38	.33	.40	.54	.78
<i>Participative scale</i>	<i>N=1777</i>	<i>.52</i> <i>Rho: .72</i>			<i>.71</i>
Part6 Strategy briefing: manual	.33	.66	.66	.72	.61
Part2 Written comm policy employees	.40	.24	.23	.07	.75
Part5 Strategy briefing: clerlc	.40	.63	.70	.76	.59
Part4 Strategy briefing: professional	.59	.62	.59	.46	.63
Part1 Written mission statement	.74	.42	.30	.11	.72
Part3 Strategy briefing: managers	.95	.73	.25	.09	.73

\*MSP: Mokken Scaling Program; mean is the mean of the dichotomized items; H<sub>wgt</sub>: Loevinger's coefficient of homogeneity, weighted. All H-coefficients are significantly different from zero at the 0.001 level.

\*\*Reliability analysis: Corr. is the corrected item-scale correlation; R<sup>2</sup> is the squared multiple correlation between the item and the remaining items; Alpha is the Cronbach's Alpha for the scale and for each item the scale Alpha without that item.

In Table 2.2, the dichotomous items of the three HRM policy scales are ordered on basis of their overall means (i.e., the observed proportion of firms employing the practice described by the item). The Loevinger's H-coefficients for the individual calculative and the participative HRM policies scale indicated a medium to almost strong *scalability* (respectively 0.40 and 0.52). The collective calculative policy scale appeared to generate relatively weaker results with a Loevinger's H coefficient of 0.30. In particular the group bonus at the "manual" and "management" level, (i.e. Cis12 and Cis9), had low scalability coefficients (respectively 0.16 and 0.18). The reliability analyses show satisfying R-squares and average inter-item correlations (for the three scales respectively 0.29, 0.24, and 0.28), indicating a common variance between the items and the remaining items with each scale. Some items of the Participative HRM policy scale, however, had relatively low R-squares (i.e., Part2: 0.07, Part1: 0.11, and Part3: 0.09). Elimination of Part2, which also had a low H-coefficient, would raise the Cronbach's Alpha to a slightly higher level of internal consistency. Overall, three HRM policy scales demonstrate encouraging high levels of reliability (with Cronbach's alpha values of respectively: 0.80, 0.79, and 0.81), besides the satisfying scalability (based on the Loevinger's H-coefficient) of the scales reported earlier.

**Mean proportions.** The ranking of the items on the basis of the overall means within each scale indicates the relative existence of a particular HRM-practice within companies. The mean proportion of the individual calculative HRM policy ranged between 0.32 and 0.72 in which the individual rewards items at the different levels appeared to be less popular in companies than the practices concerning performance appraisals. The mean proportion of the participative HRM policy ranged between 0.33 and 0.95. A participative HRM policy focusing on more operational hierarchical levels, (i.e., manual and clerical) appeared to be less common than those focusing on more strategic levels (i.e., professional and managerial). The collective calculative HRM policy was overall less common in European-based firms; the mean proportion for the HRM practices related to this policy ranged between 0.14 and 0.38. Note that the items of the participative HRM policy scale covers mainly *information sharing* and do not indicate *participation in decision making*. We did not include structural work organization features like teamwork and representative participation. These neither tell us much about the actual participation in decision making, nor are a necessary precondition. Information sharing *is* a necessary precondition to cooperation and collaboration.<sup>5</sup> Within the collective calculative scale, practices appeared to be ranked according to the type of collective incentive scheme, i.e. the employee share options schemes are overall less common, followed by the group bonus schemes; the profit sharing schemes are the most common collective calculative schemes. Note that the HRM-scales included a *coverage* dimension: the higher the score, the more categories of personnel are covered by the system of practices. This makes the scales very useful for our analysis of variations in the degree of use of HRM policies. Within each scheme, practices appeared to be most commonly adopted at higher hierarchical levels than at lower ones.

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<sup>5</sup> Unlike Wood and Fenton-O'Creevy (2005) we do not emphasize in our analyses the structures of collaboration. We approach the issue of collaboration from the angle of the use of collaborative practices by management regardless of the channels they may use. However, we checked any association in our dataset between collaborative practices on the one hand and the existence of works councils and the recognition of trade unions by management and both relationships are positive.

In table 2.3, the dichotomous items of the business performance scale are ordered on the basis of their overall means (i.e., the proportion of firms outperforming other firms in the industry). The Loevinger's H-coefficient of homogeneity for the business performance scale indicates a medium scalability (0.41). The reliability analyses showed satisfying R-squares and average inter-item correlations (0.24) indicating a common variance between the items and the remaining items with each scale. The Cronbach's Alpha of this scale shows satisfactory high levels of reliability (0.68) beside the satisfying scalability based on the Loevinger's H-coefficient of the scales reported earlier.

**TABLE 2.3**  
**Scalability and Reliability of the Business Performance Scale**

Scales\Items	MSP*		Reliability analysis**		
	Mean 2000	Hwgt	Corr.	R <sup>2</sup>	Cronbach's Alpha
<i>Business Performance scale</i>	<i>N=1777</i>	<i>.41</i> <i>Rho= .72</i>			<i>.68</i>
Bp6 stock market perf	.32	.53	.31	.11	.67
Bp4 market time	.68	.40	.45	.30	.63
Bp5 innovation rate	.70	.38	.43	.30	.63
Bp3 profitability	.75	.46	.54	.37	.60
Bp7 Gross Revenue	.82	.34	.35	.22	.66
Bp2 productivity	.87	.41	.39	.23	.65
Bp1 service quality	.94	.46	.29	.13	.67

## 2.5 Results

### 2.5.1 Descriptives

The descriptive statistics of the HRM-policies and business performance scales are summarized in Tables 2.2 and 2.3. For each scale, a scale score was calculated on basis of the corresponding dichotomous items (see Table 2.2). The *individual calculative HRM policy* scale (i.e., CALC) is the sum of the 10 dichotomous items indicating different calculative practices in a company (*Range: 0-10, Mean: 5.38, SD: 2.88*). The *collective calculative HRM-policy* scale (i.e., CIS)<sup>6</sup> is based on the 12 dichotomous items, indicating the level in which firms implemented a collective calculative HRM policy (*Range: 0-12, Mean: 2.70, SD: 2.71*). The *participative HRM policy* scale, (i.e., PART) is calculated as the sum of the 6 dichotomous items, measuring the participative practices (*Range: 0-6, Mean: 3.40, SD: 1.71*). The *business performance* scale (i.e., BP) is the sum of seven various business performance indicators (*Range: 0-7, Mean: 5.07, SD: 1.67*).

Absolutely, firms implemented --on average-- mostly individual calculative HRM-practices, followed by participative practices. Relative to the scale maximum, firms generally appeared to be most active concerning the participative HRM-practices. Both absolute and relative, the number of firms that

<sup>6</sup> As the nature of this HRM policy is fundamentally based on *collective incentive schemes*, the collective calculative HRM policy is abbreviated as: CIS.

implemented the collective incentives schemes was small. The results in Table 2.4 demonstrate that all three HRM policies are, on a *bivariate* level, positively related to business performance.

**TABLE 2.4**  
**Intercorrelations between Study Variables (N = 1777, listwise deletion)**

<i>Variables</i>	<i>Mean</i>	<i>SD</i>	<i>1</i>	<i>2</i>	<i>3</i>
1. Individual Calculative HRM policy	5.38	2.88	-		
2. Collective Calculative HRM policy	2.70	2.71	.26**	-	
3. Participative HRM policy	3.40	1.71	.28**	.15**	-
4. Business Performance	5.07	1.67	.16**	.16**	.13**

\*\* Pearson correlation is significant at the 0.01 level (2-tailed).

### 2.5.2 Regressions

**Controls.** The results of the regression analyses for business performance of the three HRM policies are summarized in Table 2.5, where model 1 includes only the generic effect of the HRM policies and model 2 includes also the synergic (i.e., moderating) effects between these policies. *Firm size* (expressed by the natural logarithm of the company's size: LNSIZE) affected business performance positively (B\_Insize: -.132,  $p < .001$ ). *Industry* has a selective effect on business performance. Compared to the manufacturing industry (reference category), companies in the construction and chemical industry as well as (mainly) service companies (in the category other industries) has on average a significant lower level of business performance. *Unionization* has a negative effect on the performance of businesses (B\_union: -.005,  $p < .001$ ). Controlling the effects for *country* shows that businesses in most European countries reported higher performance effects than businesses in the United Kingdom (reference category). Only French businesses reported of lower performance levels. Companies in Sweden, the Netherlands, and Germany reported similar levels of business performance to businesses in the United Kingdom.

**TABLE 2.5**  
**Generic and Synergic Impact of HRM Policies on Business Performance,**  
**N=1777 (listwise deletion)**

<i>Explanatory factor</i>	<b>Model 1</b> <i>Only generic effects</i>			<b>Model 2</b> <i>Interaction effects included</i>		
	<i>B</i>		<i>Std. Error</i>	<i>B</i>		<i>Std. Error</i>
<b>Intercept</b>	3.50	***	.25	3.61	***	.29
<b>Firm Size</b>	.13	***	.04	.13	***	.04
<b>Industry</b>		***				
Construction	-.46	**	.17	-.48	**	.17
Transportation	-.14		.18	-.14		.18
Banking, Finance	-.21		.16	-.20		.16
Chemicals	-.30	*	.14	-.31	*	.14
Other (e.g., services)	-.28	**	.10	-.28	**	.10
Manufacturing ( <i>reference category</i> )						
<b>EU-country</b>						
Finland	.69	***	.20	.70	***	.20
Sweden	.04		.18	.06		.18
Denmark	.82	***	.17	.86	***	.17
Ireland	.49	**	.18	.50	**	.18
Netherlands	-.39	†	.24	-.39		.24
Germany	-.08		.13	-.09		.13
Belgium	.48	*	.19	.49	**	.19
Austria	.68	***	.20	.69	***	.20
France	-.53	**	.17	-.52	**	.17
Italy	.27		.26	.31		.26
Spain	.86	***	.17	.87	***	.17
Portugal	.63	**	.21	.66	**	.21
Greece	.74	*	.29	.76	**	.29
United Kingdom ( <i>reference category</i> )						
<b>Unionization</b>	-.01	***	.01	-.01	***	.01
Individual Calculative HRM	.06	***	.02	.01		.03
Participative HRM	.07	**	.03	-.01		.05
Collective Calculative HRM	.11	***	.02	.19	***	.04
Participative HRM *				.02	*	.01
Individual Calculative HRM						
Participative HRM *				-.01		.01
Collective Calculative HRM						
Individual Calculative HRM *				-.01		.01
Collective Calculative HRM						
†	p < .10					
*	p < .05					
**	p < .01					
***	p < .001					

**Hypotheses tests.** The first three hypotheses predicted a positive generic effect on the business performance for each HRM-policy. Testing only these main effects (Table 2.5, model 1), the results confirmed the positive generic performance effects of an individual calculative HRM policy (i.e., CALC), a participative HRM policy (i.e., PART), and of the collective calculative HRM policy (i.e., CIS). Based on their relative importance (i.e. Beta value) HRM-practices focused on Collective Incentives Schemes (i.e., share options, profit sharing, and group bonuses) affected the business performance most (*Beta\_CIS*: 6,81, compared to *Beta\_CALC*: 4.13 and *Beta\_PART*: 2.68). Introducing the interaction effect of participative policies on the performance effects of calculative policies, only the generic effect of the *collective* calculative HRM policy remained robust (Table 2.5, model 2). Thereby, these results partially confirmed these generic hypotheses.<sup>7</sup>

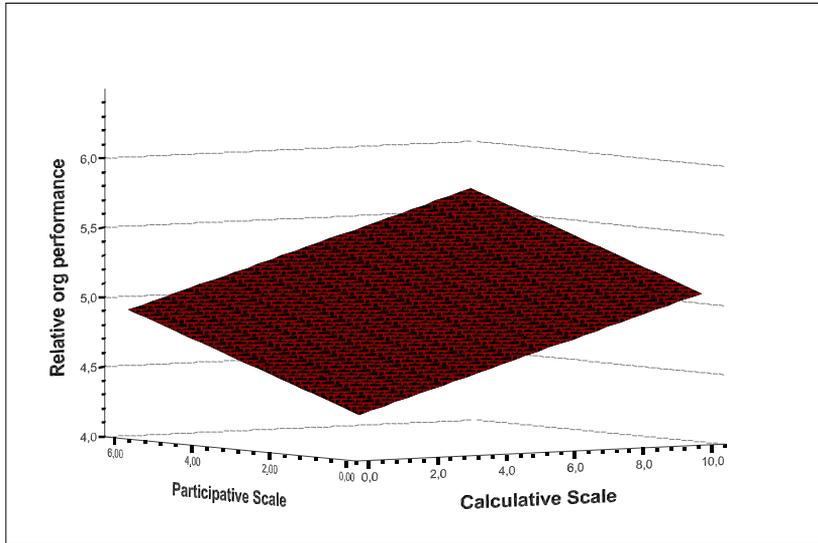
Two hypotheses focused on the complementarity effects of a participative HRM policy, combined with calculative HRM policies (either individually or collectively oriented). Model 2 (Table 2.5) extended the first model with the two corresponding interaction effects of Participative HRM \* Individual Calculative HRM, and Participative HRM \* Collective Calculative HRM. Results confirmed the predicted complementarity effect of a participative HRM policy on the performance effects of an individual calculative HRM policy. Performance effects of individual calculative HRM-practices increased if combined with participative practices informing the business' employees (*B\_PART\*CALC*: .019,  $p < .020$ ). The results of this interaction are presented in Figure 2.2. This interaction effect reveals that the generic effect of an individual calculative HRM policy on business performance is conditional on a participative HRM policy. Hence, these HRM policies are indeed complementary. This enables us to accept hypothesis 4. Although predicted by hypothesis 5, the participative HRM policy did not result in complementary effects on business performance, combined with a collective calculative HRM policy (*B\_PART\*CIS*: -.005,  $p < .355$ ). Apparently, a participative HRM policy does not generate additional information for the workforce to increase the effectiveness of a collective calculative HRM policy (e.g., via group incentives). As mentioned above, the collective calculative HRM-policy maintained its effect on business performance, also in the extended model 2 (see Table 2.5). Although not hypothesized, the interaction effect of both sub-types of calculative HRM policies (i.e., individual and collective) appeared to be insignificant (*B\_CALC\*CIS*: -.013,  $p < .157$ ).<sup>8</sup>

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<sup>7</sup> To test the complementarity effects as formulated in Hypotheses 3 and 4, we use two-way (as we have two central HR attributes) interaction effects. Analyzing synergy effects by use of interactions is a legitimate procedure (Fiss, 2007). However, in addition to the analyses via interactions, we re-ran our analyses using deviation scores. No significant differences in results were found (See Appendix D).

<sup>8</sup> Variance inflation factor (VIF) scores for all the models were within acceptable parameters; suggesting, multicollinearity was not a problem (Neter, Wasserman & Kutner, 1990).

**FIGURE 2.2**  
**Synergic Effects of Participative HRM and Individual Calculative HRM on Business Performance**



An overview of the confirmed and rejected hypotheses is presented in Table 2.6.

**TABLE 2.6**  
**Overview of Hypothesized Effects and Results**

<i>Hypothesized effect of HRM policies on Business Performance</i>	<i>Result</i>	<i>Confirmed/ Rejected</i>
<i>Direct effects</i>		
H1a. An individual calculative HRM policy has a positive effect on business performance	0	rejected
H1b. A collective calculative HRM policy has a positive effect on business performance	+	confirmed
H2. A participative HRM policy has a positive effect on business performance	0	rejected
<i>Indirect effects</i>		
H 3. The positive effect of an individual calculative HRM policy on business performance is stronger for organizations that have a high participative HRM policy then for organizations that have a low participative HRM policy.	+	confirmed
H4. The positive effect of a collective calculative HRM policy on business performance is stronger for organizations that have a high participative HRM policy then for organizations that have a low participative HRM policy.	0	rejected

Overall, these findings demonstrate that ideal type HRM policies indeed positively impact business performance. However, only the *collective* calculative HRM policy showed a generic effect. The predicted synergic effect of the participative HRM policy, in combination with a calculative HRM policy is only robust if the latter (i.e., the calculative effort) is focused on *individual* employees.

## 2.6 Conclusion

The present study presents two major findings. *First*, empirical evidence is provided for the configurational perspective on strategic HRM (Delery & Doty, 1996). The collective calculative “ideal type” HRM policy *did* have a positive impact on business performance. This contrasts with scholars having found non-relationships between HRM systems and business performance (Delaney & Huselid, 1996; Delery & Doty, 1996; Ahmad & Schroeder, 2003), and authors concluding that HRM systems may be “unwarranted” (Godard, 2004). Our study invigorates the field by a focus on the policy level in designing HRM Systems.

*Second*, our study demonstrates that multiple sub-systems of HRM practices can co-exist in what has been defined as “HRM policies” and that these HRM policies can even reinforce each other’s performance effects. More specifically: our findings indicate that HRM directors who have designed their HRM strategy around an individual calculative HRM policy will benefit more from this HRM policy when it is complemented by a participative HRM policy.

*Third*, there is no support for a configurational perspective in the sense that multiple equilibriums exist. Instead, our data indicates a universal “one size fits all” HRM system, characterized by being highly calculative as well as highly participative.

From a theoretical perspective, these findings should guide researchers seeking “ideal types” of HRM systems leading to superior performance. Whereas the search for these ideal types appears logical from the perspective of HRM practices, we call upon researchers to move *beyond* this perspective and further explore potential interaction effects between HRM policies on business performance. The systems of attributes view of organizations gears the attention towards HRM Systems. Instead of seeking to compose a system of “best practices”, HRM Systems should be designed to develop a “best system”. Hence, an important managerial implication is that managers do not always have to strive for best practices, but in some cases are better off by going for “second best” plans (Ichniowski & Shaw, 2003).

The finding that calculative and participative policies are complementary, strikes a balance between two different schools of thought in HRM. Our data reveal that organizations employing both calculative and participative HRM policies outperform those who only implement one of these policies. HRM coherence could be interpreted as an HRM principle (Colbert, 2004), and could be a fruitful avenue for future research. Researchers could, for instance, investigate the implications of our findings for the relational (i.e., participative) and transactional (i.e., calculative) employment relationship and the implications for the functioning of the “psychological contract” (Robinson, 1996). Recent insights in leadership literature have also pointed in this direction by suggesting interaction effects between

transactional and transformational leadership (e.g., Mackenzie, Podsakoff, & Rich, 2001). Also, research in strategic management has pointed in this direction by showing that relational governance and formal contracting are complementary (Poppo & Zenger, 2002). Thus, whereas researchers in HRM (e.g., Arthur, 1994) have long argued that practitioners should strategically align HRM practices to form so called “High Performance Work Systems” that are either calculative *or* collaborative; we advocate further research on how these constructs can be strategically aligned.

*Fourth*, as we move into an economy where teamwork is becoming more and more a fact of organizational life, our study analyzed HRM systems beyond the two policies of Gooderham et al. (1999) and conceptualized a third “ideal type” HRM policy: a *collective* calculative HRM policy. While this HRM policy had a significant effect on business performance, it did not predict performance in combination with an HRM policy of participation (Hypothesis 4). This finding calls for more empirical research on the *multi-level* implications of collective incentive schemes. For HRM systems research, this could imply that study designs exploring “cross-level interactions” could yield valuable insights. Scholars could for instance investigate the effects of HRM policies from a *within*-group (e.g., between individual employees), as well as a *between*-group (e.g., between different segments of the workforce) perspective.

*Fifth*, while we must acknowledge that not all combinations of HRM policies will lead to superior business performance (and some combinations might even produce negative synergy), we call upon scholars to be inspired by agency theory (Eisenhardt, 1989), that proposes that information is a critical factor in increasing the likelihood that “agents” will behave according to a calculative system. Translated to HRM practice: (individual) employees tend to behave more according to what is incentivized (and thus perform better), when they are better informed by management.

In the tradition of the strategic HRM literature, we have investigated the effects of HRM variables on business performance. In the present study, we operationalized as a composite of multiple underlying facets, such as: *productivity*, *service quality* and *innovation rate*. We like to call upon researchers to investigate differential effects of HRM policies, on different aspects of business performance. This could yield a more fine-grained insight in the link between HRM systems and performance, allowing managers to better craft, and subsequently pinpoint their HRM policies. In addition, our operationalization of a participative HRM policy is not intended to measure true “employee participation” by employees (Cotton, 1988). Our conception of a participative policy primarily relates to the distribution of information (i.e., various types of briefings, written policy employees).

While our study focused on the performance *effects* of HRM policies, the *determinants* of HRM policies also remain an interesting research area. While this issue has been pioneered by Gooderham et al. (1999), it offers interesting opportunities for future research. In an exploratory analysis of this issue, we replicated the Gooderham et al. (1999) study (Appendix C). As the results of this analysis show, the HRM systems are differently adopted and diffused across geographical and industrial contexts. Further research could explore these differences. For instance, by an international, comparative examination of the effects of unionization. We recommend researchers to further explore

the performance effects of HRM policies. As well as to develop combinations of policies that might have synergic effects.

Finally, our study focused on the HRM-performance relationship from the configurational perspective. Hence, we conceptually and empirically designed our study to test direct and moderating effects of HRM policies on business performance. However, in addition to these effects, mediators could play a substantive role. Scholars have for instance proposed that variables such as “strength of the HRM system” (Bowen & Ostroff, 2004), or “involvement of the HRM function” (Buyens & de Vos, 2001) could mediate between HRM and performance. Future research testing these mediating effects could enrich the field.

## Appendix A

### System of Attributes

In achieving business results, there are hardly any organizations that meet their objectives due to only one factor. On the contrary, success (and failure) in achieving organizational performance depends on many factors. For instance, a cosmetics firm needs an effective *marketing* department as well as a productive *research & development* (R&D) department in order to generate sales. On a departmental level, the R&D department of this firm would need both qualified *engineers* and a technically well-equipped *laboratory* in order to develop innovative new cosmetic products. Hence, organizations depend on a multitude of elements for performance.

To analyze various aspects of organizations simultaneously, organization theorists have introduced the so called “system of attributes” theory (Milgrom & Roberts, 1990). The central premise of this theory is that organizations are compositions of attributes and that a successful organization is an aligned system of attributes. In this appendix, (1) a system of attributes is defined, (2) sources of complementarity are outlined, and (3) empirical implications are formulated.

#### 1. Defining attributes and their interactions

The system of attributes theory (e.g., Milgrom & Roberts, 1990; Holmstrom & Milgrom, 1991, 1994; Hendrikse & Veerman, 1997; Ichniowski et al., 1997) proposes that organizations are composed of *attributes* (1.1), and can be perceived as *systems* (1.2). In addition, the theory argues that *coherence* between the attributes determines the success of an organization (1.3). These ideas are captured formally by a coordination game (1.4).

##### 1.1 Attributes

An *attribute* represents an aspect of an organization, like (a) a person, (b) an organizational department, or (c) a policy aspect. Attributes (and the attributes being part of a system) represented by *persons* are captured by the (classical) battle of the sexes, where two players of different sexes choose strategies with varying payoffs (Gintis, 2000). Attributes representing organizational *departments* are illustrated by Aoki (1990) in his analysis of Japanese firms as a system of “operating units”. Finally, when represented as *policy aspects*, the budget for training and intensity of personnel screening are two important attributes of an HRM system (Ichniowski et al., 1997).

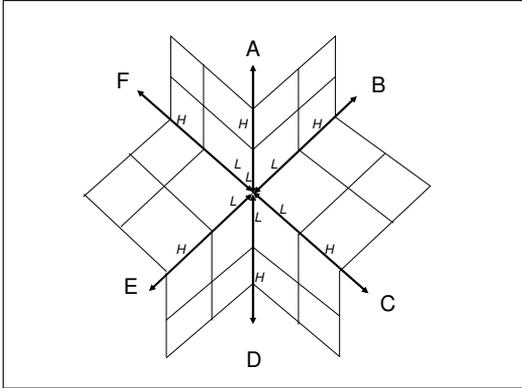
An attribute has multiple *values* such as “low” or “high,” “weak” or “strong,” or “rigid” or “flexible”. For instance, a cosmetics firm (a system) that wants to be profitable needs a marketing department aligned with the R&D department (two attributes). In this illustration, these attributes can have “low” or “high” educated employees (two possible values), or “low,” “medium” or “high” internal levels of bureaucracy (three possible values).

##### 1.2 A system of attributes

The system of attributes theory views organizations as a bundle of attributes. The attributes form a system because the payoff associated with the level of one attribute depends on the level of all

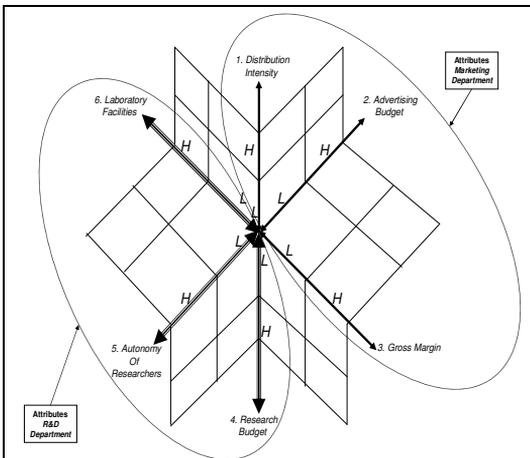
the other attributes. Attributes are therefore interdependent. Following this, the system as a whole can yield varying pay-offs, depending on the choice of attribute values.

Figure A.1 presents a system with *six* attributes (A to F). Each attribute is assigned *two* values: L(ow) and H(igh). Consequently, there is a large number ( $2^6 = 128$ ) of possible combinations. If we apply this model to the cosmetics firm in our illustration, the attributes A to F could represent six different departments (such as: *marketing, R&D, production, logistics, finance* and *HR*) where all departments could have either low (L) or high (H) budgets.



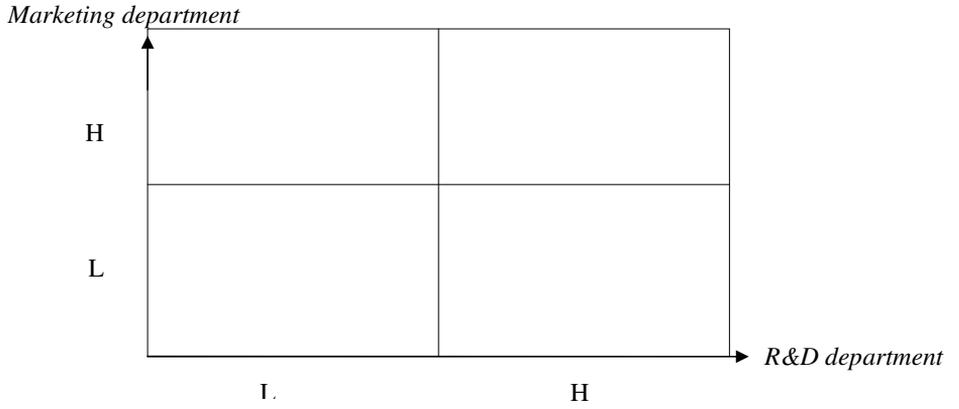
**Figure A.1: A System of attributes**

In addition to systems, *sub-systems* may be introduced (Bijman, 2004). In the example of the cosmetics firm, the marketing and R&D department form sub-systems with attributes such as: *distribution intensity, advertising budget, and gross margin* (Marketing), and *research budget, autonomy of researchers, and laboratory facilities* (R&D). Figure A.2 depicts these two sub-systems of attributes by ovals.



**Figure A.2: Subsystems in a system of attributes**

Both the Marketing and R&D departments form attributes in the system of the cosmetics firm, and constitute “groups of activities” (Milgrom & Roberts, 1990). Figure A.3 presents the cosmetics firm as a system consisting of the attributes Marketing department, and R&D department. Each attribute summarizes a subsystem consisting of a number of attributes.



*Figure A.3: A System consisting of two attributes*

### 1.3 Coherence

It has been outlined that the system of attributes view of organizations allows us to identify a large number of attribute-value combinations. An important element of a system of attributes is that the value of one attribute has an impact on the pay-offs of the values of other attributes. Successful organizations have coherent/aligned values of the attributes, whereas organizations typically fail when there is a misfit between the values of the attributes. From a general management perspective, the managerial challenge will be to select a combination that optimizes business performance.

The notion of coherence has two important implications. First, coherence is geared towards *best system* practice rather than *best attribute* practice. HR bundles with optimal performance effects are usually not those with the 'best practices' per attribute. In a situation of coherence, there could very well exist attribute values that do not reflect best practices. The rationale is that the marginal "benefits" of not complying to a certain attribute with best practices exceed its "costs," due to the value of another attribute. For instance, suppose that the R&D department of the cosmetics firm would have a *low* level of facilities, while best practices for "laboratory facilities" would prescribe a *high* level of facilities. In this case, the marginal "costs" associated with deviating from best practices (e.g., not being able to do certain experiments) could very well be outweighed by the marginal benefits of this decision (e.g., investments in machines) from a systems perspective, due to a high level of "research budget" of the R&D department.

The second implication is that coherence is geared towards a *simultaneous* implementation of attribute choices rather than a *sequential* strategy. A coherent system of attributes makes it unattractive to adopt a sequential choice of values per attribute. Rather, it argues for a holistic, simultaneous approach of selecting attribute values. A sequential approach destroys temporally valuable synergies between attributes, whereas a simultaneous approach does not.

### 1.4 Game Theory

Non-cooperative game theory is used to model a system of attributes (Milgrom & Roberts, 1990). A non-cooperative game consists of five ingredients: (1) *players*, (2) *payoffs*, (3) *actions/strategies*, (4) *information structure*, and (5) *rules* of the game (Hendrikse, 2004). The formulation of a system of attributes in the language of non-cooperative game theory entails that *attributes* are players, and *interdependencies* are represented in the payoffs.

The prediction/outcome of a non-cooperative game is called an equilibrium. The most well known equilibrium concept is Nash equilibrium. It is characterized by a payoff maximizing strategy for each player, given the strategies of all other players. A Nash equilibrium strategy of a player entails that no increase in payoff can be established by a unilateral change in strategy. Strategies that do not satisfy the Nash equilibrium requirement are unstable because there is another strategy resulting in a higher payoff. The notion of coherence/alignment can be conceptualized as an *equilibrium* in the language of game theory. An equilibrium entails a coherent/aligned system of attributes.

Two distinctions can be made regarding an equilibrium: (1) *viable* versus *non-viable* combinations of strategies, and (2) *efficient* versus non-efficient Nash equilibria. Viable (or

equilibrium) combinations of strategies are stable because no player can change his strategy and obtain a higher payoff. Notice that there can be two or more Nash equilibria. Non-viable combinations of strategies are unstable because one of the players can increase his payoffs by changing strategy. Non-viable strategies are expected to emerge only temporarily in the data. An efficient outcome entails the highest payoff for all players together. An efficient Nash equilibrium is a combination of strategies that is viable *and* results in the highest payoff for all players together. An inefficient Nash equilibrium is also possible. It may be observed in the data for considerable time due to its stability.

A game with two or more Nash equilibria is called a coordination problem. The battle of the sexes has more than one Nash equilibrium: “both players choosing the ballet” is a Nash equilibrium and “both players going to the soccer game” is a Nash equilibrium. There are two equilibria regarding the choice of incentives and the choice of information processing in organizations (Aoki, 1990): one is centralized and the other is decentralized. Finally, there are two equilibria in the HRM game (Ichniowski et al., 1997): the budget for training is low and the screening intensity of personnel is limited, and the budget for training is high and the screening intensity of personnel is extensive.

The multiplicity of equilibria is a problem because the players do not know which outcome will emerge. Each player likes to choose a strategy in such a way that its choice, together with the strategy of the other player, is part of an equilibrium outcome. However, the problem is that the players do not know on which equilibrium the other player is focusing. There is a coordination failure or misfit when one player chooses a strategy belonging to one equilibrium, while the other player chooses a strategy belonging to another equilibrium. It is often not clear which equilibrium is more appealing. For example, the male prefers that the equilibrium with both players going to the soccer game, whereas the female prefers the game with both players going to the ballet. Coordination on one equilibrium is needed in order to create the value associated with fit/coherence/alignment. In organizational life, there are often multiple viable combinations (two or more Nash equilibria).

## 2. Sources of complementarity

Well-aligned organizational attributes may not only result in low cost of running the organization, but may also lead to better performance in the individual tasks. A system of well-aligned attributes makes a coherent organization. In a coherent organization, changing the value of one particular attribute without changing the values of other attributes often leads to a loss of functionality of the organization as a whole (Hendrikse, 1998).

Probably the most important aspect of the system of attributes theory is the hypothesis that alignment of attributes into a *coherent* system creates organizational benefits. The objects that need coordination are “attributes,” whereas the value of the alignment of attributes has been characterized as complementarity (Milgrom & Roberts, 1990). A fundamental principle in the perception of a business system (e.g., HRM) as a system of attributes is that *coordination* of this system adds to its effectiveness (e.g., firm performance).

This notion of coherence is based on a body of economic literature proposing so called “complementarity” effects (Milgrom & Roberts, 1990). Complementarity is defined as a relation between groups of activities in which the marginal return of activities in one group increase when the level of any of the subset of the other activities are increased (Milgrom & Roberts, 1990: 514). It then

follows that if the marginal costs associated with some activities fall, it will be optimal to increase the level of all of the activities in the grouping.

While attributes can re-enforce each other, they need to be aligned with each other in order to achieve this. In the illustration of the cosmetics firm, examples of values of the marketing department could be “Low” versus “High” advertising budget, “Direct” versus “Indirect” distribution, or “Low” versus “High” margins for retailers. With regard to alignment of attributes, the cosmetics firm would benefit more from, say advertising expenditures (marketing) when the level of innovativeness (R&D) increases. Hence, investing more in marketing becomes more beneficial when investments in R&D are increased. Hendrikse (2004) presents three well-known alignment principles: the equal compensation principle (2.1), orthogonality (2.2), and the law of large numbers (2.3).

## 2.1 Equal compensation principle

Organizations are systems of attributes which can have different attribute-values. Coherence among attribute values entails according to the “equal compensation principle” (Milgrom & Roberts, 1992) that the marginal rate of return of these choices should be equalized. For instance in HRM, Holmstrom and Milgrom (1991; 1994) argue that employees will put most effort into those activities that have the highest marginal rate of return for them. According to the equal compensation principle, these marginal rates of return should be standardized. Hendrikse (1998) gives an example of a physical therapist neglecting the maintenance of the equipment there are only incentives for treating patients. Another example could be the salespeople of a cosmetics firm, who might neglect customer service, when they only receive incentives for generating new sales. If tasks can be clearly measured, the level of output is a good indicator of the efforts, which is precisely what employers aim to reward. However, when different work activities are difficult to separate, a piece rate reward system might lead to disproportionate attention for those tasks that are easily measurable.

## 2.2 Orthogonality

Many organizational problems are due to information problems. In general, three information problems can be distinguished: (a) *asymmetric* distribution of information, (b) a *shortage* of information, or (c) *wrong* information. The source of the coordination problem is the asymmetric distribution of information. This section will focus on how the coordination problem can be applied to situations with wrong information.

A key question here is how organizations can be structured to prevent generating wrong information as much as possible. Hammond (1994) suggests that organizational structure can influence the quality of managerial information. More specifically, he argues that organizations should choose a different design of the organizational structure than that of the organizational environment. For instance, consider the coordination between (a) an organizational structure and (b) an accounting system. Both can be designed based on products, for instance a *divisional* structure, both can be based on functions, for instance a *functional* structure such as marketing, production and logistics. Hammond (1994) argues that efficient organizations will never base their organizational structure and accounting system on the same fundamentals. Coherent organizational design entails basing one of the attributes on

functions, while the other attribute is based on divisions. There are only two coherent systems of attributes, both being characterized by orthogonal directions of information streams.

The rationale for the orthogonality of organizational structure and accounting system is as follows: the head of a product-division (e.g., men's cosmetics) in a divisional organization knows the profitability of his/her product, but can not detect the reasons for this if the accounting system is also based on products. Discussions on product features will take place inside divisions, instead of between divisions. The "myopia" that a divisional organizational structure creates by a focus on products is only compensated by having the accounting system focused on functions. Similarly, a functional organizational structure generates most information when it is complemented by a product-based accounting system.

### 2.3 Law of large numbers

In today's economy, uncertainty is a fact of organizational life and managers having to choose attribute-values for organizational attributes are constantly challenged by this uncertainty. The "law of large numbers" argues that the uncertainty regarding the mean of a sample decreases when the size of the sample increases. The implication is that firms either produce-to-stock or produce-to-order (Milgrom & Roberts, 1988). Firms that produce-to-stock typically manufacture uniform products in large numbers, and subsequently sell from inventory. This aligns with a rigid production technology. The production-to-stock mode is only profitable for a large size market. Here the law of large numbers applies: If the market is sufficiently large, the risk of producing too much or too little is low, because the uncertain demands of different clients can be pooled. A large market induces economies of scale in production and inventory. On the other hand, firms producing-to-order wait for demand specification before they start producing. These firms save inventory costs, but face substantial information costs and higher production costs due to a flexible production technology. Produce-to-order involves costs of obtaining, transmitting and processing the information needed for production and costs of formulating, communicating and implementing production plans based on the information.

## 3. Empirical implications

A non-cooperative game (players, payoffs, actions, information structure, and rules) leads to certain equilibria. Two types of analyses can be performed regarding equilibrium (Bell, Raiffa & Tversky, 1988): a descriptive analysis (3.1) and a prescriptive analysis (3.2).

### 3.1 Observable Combinations

A coherent system of organizational attributes brings the complementarities between the attributes to value. In understanding the empirical implications of the system of attributes theory, two conceptual distinctions are important: *First*, we separate (observable) equilibria from non-equilibria. As Sutton (2001: 506) argues, systems of attributes tend to have "an embarrassingly wide range of Nash equilibria" but some of these can already be excluded from further observation. For instance, in the cosmetics company, more sophisticated research facilities often generate more sophisticated research challenges, that in turn require more research budget. Therefore, a combination of a "low" research budget with a "high" level of research facilities seems very unlikely to be observed.

*Second*, we separate situations where there is one equilibrium, from those where two or more equilibria exist. In case there is only one coherent combination, (a single-equilibrium), there is a so called “one-size-fits-all” situation. This implies that for all attributes, only one value is an equilibrium value (Hendrikse, 2004). However, many organizational systems have *more* than one viable combination of attribute-values. In these “multiple-equilibria” cases, the efficient equilibrium is likely to be contingent on other factors. While from a theoretical perspective, many combinations of attribute values can occur, “only a small percentage of the theoretically possible configurations actually occur in practice” (Shepcke & Militello, 2000: 6). Combinations of attribute values should not occur, or only temporarily, when they do not constitute an equilibrium. Incoherent combinations of attribute values should not be observed, or only temporarily, in the data. However, if they are observed, then this undermines the relevance of the theoretical perspective.

### 3.2 Management implications regarding Change

In many management situations, multiple desirable equilibria exist. In order to create coherence, managers can change one or more of the five ingredients of a non-cooperative game. The transition of an organization from an *incoherent* towards a coherent system of attributes, or from an inefficient to a (second best) equilibrium, requires organizational change. Note that this change process should be focused on achieving the “best system” instead of achieving the “set of best practices.” As an incoherent organization implies loss of synergy effects, speed of this change process is a very important factor. Therefore, in order to implement this, a “big bang” or “all-or-nothing” approach in managing transition is advised (Hendrikse, 2004). As Milgrom and Roberts (1990:513) indicate: the full benefits are achieved only by an ultimately radical restructuring. The efficient transition from one Nash equilibrium to the other requires a coordinated change of all players/dimensions/attributes/elements of the organization at the same time in order to reap the benefits of the complementarities between the attributes (Hendrikse, 2003:402).

There is a wide variety of coordination mechanisms to manage a transition. One possibility is a centrally coordinated change. Sometimes, the systematic errors associated with centrally directed change are less costly than similarly large but uncoordinated errors of independently operating units (Milgrom & Roberts, 1995:191). A decentralized coordination mechanism is the prize system.

Also, note the distinction between *transitioning towards coherence* versus *further optimizing* a relatively aligned system. Further alignment is achieved by adjusting attributes to a value coherent with other attributes. Transitioning to another system of attributes requires a completely new Nash equilibrium (Milgrom & Roberts, 1995: 194). This results in inertia due to individual managers facing setbacks when only changing some attribute, as mixing elements of two coherent patterns is unlikely to lead to another coherent pattern (Milgrom & Roberts, 1995:193).

Despite the arguments for rapid change, in some cases a speedy transformation towards a coherent organization is not feasible. While some attributes can be changed relatively fast, others require considerably more time. Brynjolfsson and Hitt (2000: 45) argue, for instance, that IT systems can be changed relatively fast, but the complementary organizational changes necessary to make a “much larger real contribution” take considerably more time. Consequently, managers are advised to more carefully prepare these transformation processes.

## **Appendix B**

### **Scale Items Used in the Study**

- **Calculative HRM Policy**

1. *Do you monitor the effectiveness of your training?*
2. *If yes, how often is formal evaluation used?*
  - a. Immediately after training
  - b. Some months after training
3. *Do you have an appraisal system in operation for any of the following staff categories?*
  - a. Management
  - b. Professional/Technical
  - c. Clerical
  - d. Manual
4. *At what level(s) is basic pay determined?*
  - a. National/industry-wide collective bargaining
  - b. Regional collective bargaining
  - c. Company/division, etc.
  - d. Establishment/site
  - e. Individual
  - f. Other, please specify.....

- **Collective Calculative HRM Policy**

*Do you offer any of the following incentive schemes?*

- a. Employee share options
- b. Profit sharing
- c. Group Bonus

- **Participative HRM Policy**

1. *Which employee categories are formally briefed about the following issues?*
  - a. Management
  - b. Professional/Technical
  - c. Clerical
  - d. Manual
2. *Does your organization have a policy for the following personnel/human resource areas?*
  - A. Pay and benefits
  - B. Recruitment and selection
  - C. Training and development

- D. Employee communication
- E. Equal opportunity/diversity
- F. Flexible working practices
- G. Management development

3. *Does your organization have a Mission Statement?*

- **Business Performance**

1. *If you are a private organization, would you say the gross revenue over the past years has been:*

- A. Well in excess of costs
- B. Sufficient to make a small profit
- C. Enough to break even
- D. Insufficient to cover costs
- E. So low as to produce large losses

2. *Compared to other organizations in your sector, where would you rate the performance of your organization in relation to the following?*

- A. Service quality
- B. Level of productivity
- C. Profitability
- D. Product to market Time
- E. Rate of innovation
- F. Stock market Performance

- **Unionization**

What proportion of the total number of employees in your organization are members of a trade union?

- **Industry**

Please indicate the main sector of industry or services in which you operate?

- **Firm Size**

*Approximately how many people are employed by your organization?*

## Appendix C

### Impact of Explanatory Factors (B-coefficients) on Adoption of: Individual Calculative HRM Policy (CALC), Collective Calculative HRM Policy (CIS), and Participative HRM Policy (PART), N=1777 listwise deletion).

Explanatory factor	B CALC	Std. Error	B CIS	Std. Error	B PART	Std. Error
<b>Intercept</b>	3.67 ***	.40	1.44 **	.37	3.12 ***	.25
<b>Firm Size</b>	.45 ***	.06	.36 *	.05	.08 *	.04
<b>Industry</b>						
Construction	-.85 **	.28	-.44 †	.26	-.49 **	.18
Transportation	-.28	.30	-.52 †	.28	-.33 †	.19
Banking, Finance	.77 **	.26	.42 †	.24	.05	.16
Chemicals	.21	.23	.31	.21	.06	.14
Other (e.g., services)	-.28 †	.16	-.03	.15	-.09	.10
Manufacturing (reference category)						
<b>EU-country</b>						
Finland	-.52	.32	-.47	.30	1.01 ***	.20
Sweden	-.47	.30	-1.18 ***	.27	.89 ***	.18
Denmark	-2.61 ***	.26	-1.70 ***	.24	.19	.16
Ireland	-.14	.30	-.48 †	.27	-.09	.18
Netherlands	.22	.39	-.31	.36	-.19	.25
Germany	-1.46 ***	.21	-1.45 ***	.19	-.63 ***	.13
Belgium	.356	.31	-1.73 ***	.29	-.26	.20
Austria	-2.03 ***	.32	-1.55 ***	.29	-.61 **	.20
France	.50 †	.27	2.22 ***	.25	-.66 ***	.17
Italy	-.50	.43	-2.47 ***	.39	-.92 ***	.27
Spain	-.87 **	.28	-2.20 ***	.26	-.37 *	.18
Portugal	-.44	.34	-2.70 ***	.31	-.78 ***	.21
Greece	-.13	.48	-1.83 ***	.44	-1.48 ***	.30
United Kingdom (reference category)						
<b>Unionization</b>	-.01 ***	.01	-.01	.01	.01	.01

† p < .10

\* p < .05

\*\* p < .01

\*\*\* p < .001

## Appendix D

### Results of Regression Analyses of Fit-Deviation Score on Relative Business Performance (mean predicted value 20% best performing firms = 6.16)

#### For Hypothesis 3: Individual Calculative & Participative Policy

	<i>Model 1</i>			<i>Model 2</i>		
	<i>B</i>		<i>Std. Error</i>	<i>B</i>		<i>Std. Error</i>
Intercept	4,65	***	,12	4,90	***	,13
Firm Size	,15	***	,03	,13	***	,03
Industry	-,01		,01	-,01		,01
EU-country	,01		,01	,01	†	,01
Fit_Deviation				-,09	***	,02

† p < .10  
 \* p < .05  
 \*\* p < .01  
 \*\*\* p < .001

#### For Hypothesis 4: Collective Calculative & Participative Policy

	<i>Model 1</i>			<i>Model 2</i>		
	<i>B</i>		<i>Std. Error</i>	<i>B</i>		<i>Std. Error</i>
Intercept	4,65	***	,12	5,01	***	,13
Firm Size	,150	***	,03	,13	***	,03
Industry	-,01		,01	-,01		,01
EU-country	,01		,01	,02	**	,01
Fit_Deviation COLL				-,11	***	,02

† p < .10  
 \* p < .05  
 \*\* p < .01  
 \*\*\* p < .001

### **3. ON THE IMPACT OF TRANSFORMATIONAL LEADERSHIP ON GOAL ORIENTATIONS AND ADAPTIVE SELLING TO IMPROVE JOB PERFORMANCE OF SALESPEOPLE**

#### **3.1 Introduction**

The literature on the determinants of salesperson performance contains numerous salesperson characteristics that lead to successful salesperson performance. Within this current body of literature, two of the most promising streams are those regarding: (1) salesperson goal orientations, defined as “the underlying goals that people pursue in achievement situations” (Sujan, Weitz & Kumar, 1994, p. 39; Harris, Mowen & Brown, 2005), and (2) adaptive selling behavior, which is described as the “altering of sales behaviors during a customer interaction or across customer interactions” (Spiro & Weitz, 1990: 62). Thus, knowledge of leadership behaviors that shapes goal orientations and adaptive selling behavior of salespeople would truly benefit practitioners as well as researchers in selling.

Providing leadership to salespeople in a way that maximizes salesperson performance is important. The degree of accountability for leaders of salespeople is relatively high, as the performance of their subordinates and the goals that need to be achieved (e.g., sales volume targets) are typically very transparent (Colletti & Fiss, 2006). Sales force leadership has recently been defined as “activities performed by those in a sales organization to influence others to achieve common goals for the collective good of the sales organization and company” (Ingram, LaForge, Locander, MacKenzie & Podsakoff, 2005:137). In spite of its evident relevance, scholarly knowledge on which leadership ‘activities’ indeed influence salespeople to achieve performance (and thus contribute to common goals) is relatively scarce in the literature on sales.

A key distinction in the literature on leadership behaviors is that between (a) transformational versus (b) transactional leadership (Burns, 1978). *Transformational* leaders try to influence followers towards achieving more than just short-term goals and focus on the higher-order intrinsic needs of their followers. In contrast, *transactional* leaders are concentrated on the proper exchange of resources, such that the behaviors of followers are “exchanged” for rewards (or punishments) of leaders (Bono & Judge, 2004: 755). To understand the differences between these two leadership styles, consider the example of a sales manager trying to influence his/her salespeople to attain higher sales volumes in order for the firm to gain market share in a certain market-segment. A transformational leadership style would imply the manager to “appeal to longer-term, higher order needs of followers” (Judge & Piccolo, 2004) and indeed transform the aspirations and goals of salespeople, in order to align them with the market share objectives of the leader (Bass, 1990). In this case for example, via clearly articulating a vision of the selling firm as the industry’s future market leader, motivating salespeople to contribute “beyond expectations” to the firm’s market-share objectives (Bass, 1985; Yukl, 1999). On the other hand, taking a transactional leadership approach would imply the sales manager to be driven by the objective of making discrete transactions with salespeople and focus on rewarding and punishing

salespeople, contingent on their performance. In this particular case for instance, through the provision of negative feedback (e.g., during quarterly evaluation meetings) to those salespeople who do not meet their sales volume targets in the market segment, and/or providing positive feedback (e.g., compliments, or pledges of future career opportunities) to those salespeople who do attain their sales volume targets in the market segment. The present study draws from transformational leadership theory (Bass, 1985). While the literature on sales force leadership has long been dominated by a focus on feedback, or so called 'transactional' leadership (Jaworski & Kohli, 1991; Kohli, 1985), recently an increasing interest in transformational leadership of the sales force has developed (Ingram, LaForge & Leigh, 2002:562). As such, we address the call for research on the effects of transformational leadership on salespeople's goal orientations that several authors have been making: First, Mackenzie et al. (2001:131) argue that additional consequences of transformational leadership should be tested and that salespeople's goal orientations could well be one of the outcomes of transformational leadership. Second, Sujana et al. (1994: 45) have proposed over a decade ago that transformational leadership may potentially enhance salespeople's learning orientations. Despite these calls, to our knowledge, no study has explored this issue until the present.

However, related studies have been published. Various studies have explored the effects of empowerment (Rapp, Ahearne, Mathieu & Schillewaert, 2006; Ahearne, Mathieu & Rapp, 2005) and closeness of supervision (Dubinsky, Yammarino & Jolson, 1994) on salespeople and related marketing agents (Chebat & Kollias, 2000). Our study contrasts to these studies as we focus on the effects of transformational leadership on salespeople.<sup>9</sup> Other studies have related transformational leadership to salesperson characteristics, (Yammarino & Dubinsky, 1994; Yammarino, Dubinsky, Comer & Jolson, 1997; Mackenzie et al., 2001; Sparks & Schenk, 2001; Martin & Bush, 2006) but --to our knowledge-- never on goal orientations and adaptive selling behavior. Finally, studies have explored the impact of transformational leadership on salespeople, but not on salesperson performance in two ways, those that do not measure performance at all (Chebat & Kollias, 2000; Bettencourt, 2004) and those that measure sales performance at *other* analytical levels like business units (Xenikou & Simosi, 2006). The present study aims to relate a nomological net of leadership and salesperson variables to salesperson performance and to develop new insights on how transformational leaders can make salespeople more effective. We start with our conceptual framework (§ 2), and a number of hypotheses (§ 3). Then, we describe the methods used (§ 4), the study's results (§ 5), and a discussion of the implications for researchers and managers (§ 6).

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<sup>9</sup> Scholars in leadership agree that empowerment differs from transformational leadership. Empowerment is defined as the formal and informal organizational practices intended to influence the self-efficacy of employees and aims to enable followers to achieve their goals (Conger and Kanungo, 1988, p. 474). On the other hand, transformational leadership above all appeals to the higher order intrinsic needs of followers and is related to aligning their goals with those of leaders by offering them a purpose that transcends short-term goals (Judge and Piccolo 2004, p. 755).

## 3.2 Conceptual Framework

We draw on the sales leadership framework as proposed by Ingram et al. (2005: 140), where (a) *leadership activities* influence a set of (b) key salesperson attributes as *intervening variables* (i.e., goal-orientations and adaptive selling behavior), that jointly determine (c) *salesperson performance*. It implies that our conceptual framework consists of two analytical stages. In stage one, we explore how transformational leadership impacts key salesperson attributes. In stage two, we look at how these characteristics relate to salesperson performance.

### 3.2.1 Leadership Activities

Transformational-transactional leadership theory dominates contemporary thinking about leadership research (Judge & Picollo, 2004). This is also true of *sales* leadership research (Ingram et al., 2005:139). We explain transactional leadership, followed by an explanation of transformational leadership.

Sales researchers have defined *transactional* leadership as the provision of positive and negative supervisory feedback (MacKenzie et al., 2001). Salespeople typically function as so called “boundary spanners” in relative (social, physical, and psychological) isolation from their leaders (Ingram et al., 2005), making the provision of feedback from their leaders more and more problematic. Therefore we focus on transformational leadership in the present study. However, we control our model for potential confounding effects of transactional leadership (Goodwin, Wofford & Whittington, 2001). From a task-focused perspective, transactional leadership (i.e., providing positive and negative feedback) is a leadership style that has a strong tradition in sales force research (e.g., Jaworski & Kohli, 1991). In fact, as Mackenzie et al. (2001, p.115) argue; “perhaps the most commonly studied leader behaviour in the sales management literature is supervisory feedback”. Transactional leaders aim to secure follower behavior through a process of so called “instrumental compliance” (Kelman, 1958). In other words: within this leadership model, salespeople are argued to perform better because they seek incentives (i.e., positive feedback), or avoid punishments (i.e., negative feedback) from their leaders, which are contingent on their performance as a salesperson.<sup>10</sup>

The notion of *transformational* leadership has been introduced by Burns (1978). His characterization of transformational leadership entails a process of pursuing collective goals through the mutual tapping of leaders' and followers' motive bases toward the achievement of the intended change. Bass (1985) notably pushed forward transformational leadership theory by arguing that leaders should be both transformational and transactional at the same time. Presently, the literature on transformational leadership has arrived at a point where there is a preponderance of empirical research and even meta-analytical evidence that it positively impacts performance (Avolio, 1999; Bass, 1998; Bass, Avolio, Jung, & Berson, 2003; Judge & Piccolo, 2004).

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<sup>10</sup> As our study focuses on supervisory leadership, we do not include financial incentives in our model. However, we like to point out the findings of Peterson and Luthans (2006) demonstrating that financial and nonfinancial incentive motivators (i.e., leadership) had an equally effective impact on employee performance over time.

While both leadership styles aim to influence followers towards achieving goals that benefit the organization, there are two substantial differences between them. First, the process by which leaders influence followers is different. Transformational leadership implies followers to *internalize* and/or identify with the goals of the leader and transactional leadership implies followers to *comply* with the goals of the leader. Second, the actual leadership behaviors of transactional and transformational leaders are dissimilar. Typically, transactional leaders focus on providing positive and negative feedback, whereas behaviors of transformational leaders are focused on getting followers to perform at their best by for instance, articulating a vision, providing a role model, and providing individual support as well as intellectual stimulation (MacKenzie et al., 2001; MacKenzie, Moorman & Fetter, 1990).

Sales force researchers have only been inspired by the notion of transformational leadership for about a decade, starting with the initial investigation of Dubinsky, Yammarino, Jolson and Spangler (1995). Since then, various authors have been exploring the role of transformational leadership in selling. Table 3.1 classifies eleven studies. Four of these investigate the effects of leadership styles, other than transformational leadership (mostly empowerment). While the remaining seven studies all look at the effects of transformational leadership, five of these seven studies omit both goal orientations as well as adaptive selling behaviour as constructs of interest in their research. The residual two studies omit either goal orientation or adaptive selling in their research models, and moreover do not explore salesperson performance.

**TABLE 3.1**

**Research on Transformational Leadership in Selling**

Study	Number of Salespeople / Leaders <sup>a</sup>	Leadership Style	Salesperson Characteristic		Performance		
			Goal Orientation	Adaptive Selling	Yes/No <sup>b</sup>	Analytical Level	Data Source
Dubinsky et al. (1994)	174/47	Closeness of Supervision	No	No	Yes	Salesperson	Manager and Objective
Yammarino and Dubinsky (1994)	105/33	Transformational	No	No	Yes	Salesperson	Manager
Yammarino, Dubinsky and Comer (1997)	30/15	Transformational	No	No	Yes	Salesperson	Manager
Chebat and Koliias (2000)	41/n.a.	Empowerment	No	Yes	No	-	-
MacKenzie, Podsakoff and Rich (2001)	477/ n.a.	Transformational	No	No	Yes	Salesperson	Objective
Sparks and Schenk (2001)	736/ n.a.	Transformational	No	No	Yes	Salesperson	Objective
Bettencourt (2004) <sup>c</sup>	183/ n.a.	Transformational	Yes	No	No	-	-
Ahearne et al. (2005)	231/ n.a.	Empowerment	No	Yes	Yes	Salesperson	Objective
Martin and Bush (2006)	313/106	Transformational	No	No	Yes	Salesperson	Manager
Xenikou and Simosi (2006)	293/32	Transformational	Yes	No	Yes	Business Unit	Objective
Rapp et al. (2006)	203/29	Empowerment	No	Yes	Yes	Salesperson	Objective
The present study	563/116	Transformational	Yes	Yes	Yes	Salesperson	Objective

a In some studies, the number of leaders was not reported. We indicated this as not available, or “n.a”.

b In this column, “yes” indicates that performance was measured in the study.

c In the study of Bettencourt (2004), the respondents were not salespeople, but service employees.

The effects of transformational leadership on salesperson characteristics and their levels of salesperson performance are relatively under explored. The extant literature on sales force leadership contains scarce empirical evidence of the effects of transformational leadership on salesperson performance (e.g., MacKenzie et al., 2001). However, numerous scholars in sales force research have been arguing for a deeper exploration of this area. Particularly because of the perceived role of the transformational leader as an effective change agent in conjunction with the numerous changes that contemporary selling firms are faced with in practice (Ingram et al., 2002: 562; Jones, Brown, Zoltners & Weitz, 2005).

Transformational leadership has been conceptualized as a multifaceted construct. For our conceptualization of transformational leadership, we draw on Rafferty and Griffin (2004) demonstrating empirical support for a five-factor leadership model of transformational leadership: (1) *articulating a vision*, (2) *inspirational communication*, (3) *intellectual stimulation*, (4) *supportive leadership*, and (5) *personal recognition*.<sup>11</sup>

<sup>11</sup> As a response to the debate concerning the differentiation of the subdimensions of transformational leadership (e.g., Bono and Judge, 2004), Rafferty and Griffin (2004) successfully develop a set of focussed and theoretically distinct subdimensions. Their

The *first* element is “articulating a vision”. This leader behaviour refers to the extent to which leaders express an idealized picture of the future based around organizational values. For instance, when leaders of salespeople sell products relatively new to the market (and customer’s have numerous new questions that cannot be quickly addressed in part because there is no service operation in place yet), they express “vision” when they describe the firm’s long-term goals for market penetration (when customer’s are used to the product, and start making repeat-purchases and the selling firm has a complete service operation in place).

*Second*, inspiring and motivating followers has been identified as an important and distinctive part of transformational leadership.<sup>12</sup> A core element of inspirational leadership is the use of verbal communication to motivate and arouse followers’ emotions, “inspirational communication” is used as a distinct construct and describes leader behaviour that expresses positive and encouraging messages about the organization, as well as assertions that generate motivation and confidence with followers. For example, in many call centres, all sales agents are brought together right before a telesales work-shift for a pre-shift talk of the leader. In this talk, leaders inspire salespeople by explaining that the sales targets for the shift are very realistic.

*Third*, “supportive leadership” is an important dimension in the model. Leaders that give followers personal attention, make them feel valued and recognize their individual contributions, are conceptualized as supportive leaders (Yammarino & Dubinsky, 1994). Key in this conceptualization is that supportive leadership entails the expression of concern for followers in addition to the incorporation of their individual needs.

The *fourth* component of transformational leadership is “intellectual stimulation”. When leaders intellectually stimulate followers, they motivate them to be more innovative and to think about problems in new ways. Moreover, intellectual stimulation does not only serve a motivational function. Leaders enacting this leadership style also increase their follower’s abilities to re-assess the way they currently think about problems.

Finally, “personal recognition” is the *fifth* dimension as defined by Rafferty and Griffin (2004). Leaders that behave according to this leadership style actively communicate their appreciation to followers work behavior, and for instance praise them, when their efforts are in line with the leader’s vision. This dimension is based on the body of research that has found a strong link between transactional leadership and the dimensions of transformational leadership. Empirical evidence indicates that contingent reward is significantly and positively associated with transformational leadership, and displays a similar pattern of relationships to outcomes as the transformational dimensions. Thus, followers seeking rewards, or avoiding punishments, are likely to receive personal recognition.

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findings indicate that “it is appropriate to examine the individual leadership subdimensions as opposed to a higher-order transformational leadership factor” (Rafferty and Griffin, 2004, p.347), and authors in leadership have recognized the advantage of Rafferty and Griffin’s (2004) five-factor model of transformational leadership to provide “a more elaborated understanding of the subject” (Rowold and Heinitz, 2007, p.122).

<sup>12</sup> According to some researchers (e.g., Bass, 1999), inspirational communication should be combined into a single “charisma” construct with vision. However, Rafferty and Griffin (2004) found theoretical and empirical support for the distinction between the constructs of inspirational leadership and the vision component of charisma. Therefore, and consistent with numerous scholars (e.g., Barbuto, 1997, McClelland, 1975), we separate these constructs.

### 3.2.2. Key Mediating Variable

The body of research on personal selling contains a wide spectrum of potential salesperson characteristics that sales leaders should aim to influence. In their seminal meta-study, Churchill, Ford, Hartley and Walker (1985) categorized these into two broad groups. First, “stable individual difference factors”: *aptitude* and *personal characteristics*, and second, “influenceable factors”: *role perceptions*, *skills*, and *motivation*. Based on their meta-analytical data, they guide the field forward by making a compelling argument for future sales force research to focus on the final category of influenceable factors.

Within these broader categories, the literature shows that *goal orientations* as a “motivational aspect” (DeShon & Gillespie, 2005), and *adaptive selling* as an “ability component” (Weitz, Sujan & Sujan, 1986) or “skill” (Rentz, Shephard, Tashchian, Dabholkar & Ladd, 2002), represent two *key* variables in the field. In fact, in a recent ranking of “top 10” papers in selling, these two streams are all represented as fundamental theoretical advancements (Leigh, Bolman, Pullins & Comer, 2001). In addition, sales force researchers are moving towards more advanced explorations of these relatively matured sub-fields, in their efforts to “re-examine” goal orientations (Harris et al., 2005) and “meta-analyze” adaptive selling behavior (Franke & Park, 2006).

#### 3.2.2.1 Goal-orientations

The research on salespersons’ goal orientations highlights individual differences for goal preferences in achievement settings (VandeWalle, Brown, Cron & Slocum Jr., 1999). Two types of goal orientation are distinguished: A *learning* goal orientation, where salespeople are “focused on improving skills and abilities and to master the task which has to be performed”, and a *performance* goal orientation, in which salespeople “strive for success, performance and the gain of favorable judgments about one’s competences from managers and peers” (Sujan et al., 1994). Multiple empirical studies have demonstrated that salesperson goal orientations are solid predictors of salesperson performance (Sujan et al., 1994; Kohli, Shervani & Challagalla, 1998; VandeWalle et al., 1999).

#### 3.2.2.2 Adaptive selling behavior

Inherent to the sales task, is the fact that salespeople encounter a large variety of selling situations. Consequently, salespeople are often required to engage in adaptive behaviors when interacting with customers. Adaptive selling behavior (Spiro & Weitz, 1990) represents one of the most established streams of sales force research. And there is agreement amongst sales force researchers that adaptive selling behavior has a positive effect on salesperson performance (Weitz et al., 1986; Spiro & Weitz, 1990; McFarland, Challagalla & Shervani, 2006). Recent meta-analytical evidence supports the significance of this relationship (Franke & Park, 2006).

### 3.2.3 Salesperson Performance

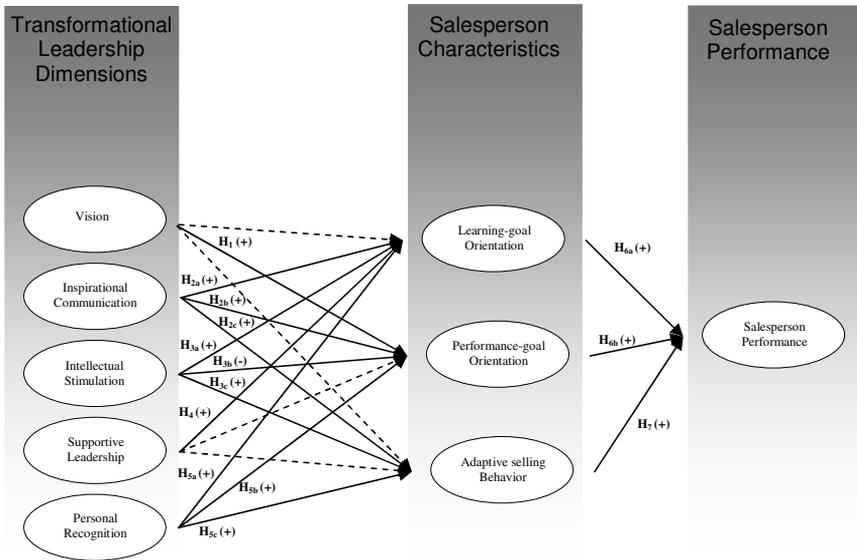
Salesperson performance can be defined as behavior evaluated in terms of its contribution to the goals of the organization (Johnston & Marshall, 2006; Churchill et al., 1985). In order to align the

behavior of salespeople with organizational goals, salespeople are often required to generate and optimize sales volume. While some scholars in selling argue that salespeople are only depending on individual difference factors (like role stress, motivation and skills) to perform well (e.g., Walker, Churchill & Ford, 1977), Bagozzi's (1978) model of selling explicitly mentions the *environment* of the salesperson as a relevant source of salesperson effectiveness. Our study adopts the latter perspective.

### 3.3 Hypotheses

Now we will present specific hypotheses on how sales leaders can influence salespeople characteristics through transformational leadership dimensions. Figure 3.1 presents our causal model. In what follows, we will explain our hypotheses.

FIGURE 3.1  
Hypotheses Model



Notes: We control our model for potential confounding effects of transactional leadership by including non-hypothesized paths of positive and negative feedback on all three salesperson characteristics (learning goal orientation, performance goal orientation and adaptive selling behavior). The four dashed arrows represent non-hypothesized paths, which we have entered in the model as controls.

### 3.3.1 Articulating a vision

Visionary leaders “express an idealized picture of the future based around organizational values” (Rafferty & Griffin, 2004: 332). Thus, they communicate to their salespeople where the organization is idyllically going. We reason that salespeople perceive these idealized views as evident priorities on the agenda’s of their leaders, which are very important to (ideally) achieve. Consequently, we posit that salespeople will strive to demonstrate the skills they have to help attain these goals expressed so as to obtain positive evaluations (Porath & Bateman, 2006). Thus, we argue that from the perspective of a salesperson, an “idealized perspective” represents a clear *external* reward for good performance on the job. Therefore, we put forward hypothesis 1:

*Hypothesis 1. Articulating a vision will be positively related to the performance-goal orientation of salespeople*

### 3.3.2 Inspirational Communication

Through inspirational communication, leaders motivate and build confidence with followers. In addition, leaders who behave in this way also encourage salespeople to see change as positive (Rafferty & Griffin, 2004). We reason that salespeople who are inspired by leaders to see change as positive become more motivated to engage in challenging sales situations and are less bothered by the odds of failure. Thus, we posit that inspirational communication of leaders motivates salespeople to develop their personal mastery, or competences (Sujan et al., 1994; Shamir, House & Arthur, 1993). Based on the work of Kohli et al. (1998), who demonstrated that supervisor capability orientation is positively related to a learning goal orientation, we propose that inspirational communication makes salespeople more confident about their capabilities. Consequently, we argue that salespeople will be more interested in their tasks, and experience higher intrinsic motivation. Also, inspiring leaders promote salespeople to experience new situations and thus, stimulate acquiring the knowledge to master these new situations (VandeWalle, Cron & Slocum, 2001). Therefore, we propose hypothesis 2a:

*Hypothesis 2a. Inspirational communication will positively influence the learning-goal orientation of salespeople*

When a leader communicates in inspirational ways, he or she actively motivates and excites employees to achieve “a desirable future” (Bass, 1999). A key target- consequence of inspirational motivation is that followers feel confident that they can achieve their objectives and are excited to work on achieving these objectives (Rafferty & Griffin, 2004). We argue that this motivation and excitement for achieving objectives leads salespeople to focus on performance and make an effort to demonstrate their ability by looking better than others (Porath & Bateman, 2006: 186). Therefore, we propose hypothesis 2b:

*Hypothesis 2b. Inspirational communication will positively influence the performance-goal orientation of salespeople.*

Salespeople have been argued to become more prone to practice adaptive selling behavior due to three key arguments (Spiro & Weitz, 1990: 62). First, salespeople need to be motivated that adapting sales behaviors to selling situations will lead to greater sales. Second, they need confidence in their ability to use a variety of sales approaches and to alter these during customer interactions. Third, salespeople need to possess the capabilities necessary to communicate in an adaptive manner. Recently Martin and Bush (2006) demonstrated a correlation of .26 between transformational leadership and the extent to which salespeople employ “customer oriented selling”, which is conceptually related to adaptive selling. Transformational leaders that engage in inspirational communication are likely to encourage salespeople to take risks, in order to achieve higher levels of performance. They motivate salespeople to see changing environments as situations full of opportunities (Rafferty & Griffin, 2004); hence they motivate salespeople’s intrinsic beliefs that interacting adaptively with customers is essential to grasp these opportunities. As the motivation to adapt selling behaviours is a key driver of adaptive selling behaviour (Spiro & Weitz, 1990), we forward hypothesis 2c:

*Hypothesis 2c. Inspirational communication will positively influence adaptive selling behavior of salespeople.*

### 3.3.3 Intellectual Stimulation

Intellectually stimulating leaders encourage salespeople to challenge and re-examine existing work patterns and to explore innovative ways of performing sales tasks. Moreover, intellectual stimulation increases employees’ interest in understanding and solving problems (Rafferty & Griffin, 2004: 333). Hence, we reason that intellectual stimulation will indeed lead salespeople to experience an increased aspiration to advance their personal selling skills (Kohli et al., 1998: 263). We posit that leaders who are intellectually stimulating are perceived as capability-oriented managers who indeed stimulate salespeople to learn improved ways of performing a task (Weitz et al., 1986). Therefore, we forward hypothesis 3a:

*Hypothesis 3a. Intellectual stimulation will positively influence the learning-goal orientation of salespeople.*

Bass and Avolio (1990) note that leaders who intellectually stimulate followers are able to increase their follower’s ability to conceptualize, comprehend and analyze problems. Moreover followers are proposed to come up with better solutions to work-related problems as a consequence of their leader’s intellectual stimulation. As a consequence, we reason that the perceptions that salespeople have of their own abilities will change from a fixed (i.e., high performance goal orientation), to a dynamic (i.e., low performance goal orientation) perspective. Moreover, we posit that salespeople who are encouraged by their leaders to think about problems in new ways become less motivated to

demonstrate their current capabilities to deal with challenges at work.<sup>13</sup> Thus, we formulate hypothesis 3b:

*Hypothesis 3b. Intellectual stimulation will negatively influence the performance-goal orientation of salespeople.*

Leaders that provide intellectual stimulation encourage salespeople to challenge their existing, routinized assumptions on how to interact with customers. Hence, the practice of providing “canned presentations” is challenged (Spiro & Weitz, 1990). On the contrary, salespeople are intellectually stimulated to employ their knowledge (of a variety) of selling situations and motivated to practice adaptive selling (Weitz et al., 1986). We reason that intellectual stimulation leads to intrinsic motivation of salespeople and motivates to try new ways of doing things (Ingram et al., 2002; Rafferty & Griffin, 2004). Consequently, we put forward hypothesis 3c:

*Hypothesis 3c. Intellectual stimulation will positively influence adaptive selling behavior of salespeople.*

### 3.3.4 Supportive leadership

Kohli et al. (1998: 270) found that supervisors can influence salesperson learning goal orientations by a so called “capability orientation”. Leaders with a capability orientation focus on the development of abilities of those who report to them and position themselves as a supportive coach (House, 1996). Supportive leaders express concern for their employees, and take into account the individual needs that employees might have (Rafferty & Griffin, 2004). As such, supportive leaders create a friendly and psychologically supportive work environment (House, 1996). We argue that a friendly and supportive environment stimulates learning, because there is more tolerance for making mistakes. Accordingly, we propose that salespeople who have a supportive leader will be motivated -- and supported-- to increase their selling skills, master new situations and learn from experience (VandeWalle et al., 2001). Accordingly, we formulate hypothesis 4:

*Hypothesis 4. Supportive leadership will positively influence the learning-goal orientation of salespeople.*

### 3.3.5 Personal recognition

Transformational leaders who provide personal recognition actively signal their approval for the successful development of new selling methods and articulate mistakes as a way of learning (Coad & Berry, 1998; Rafferty & Griffin, 2004). As transformational leadership works through a process of internalization and identification rather than instrumental compliance (Bass, 1990), it is expected to be

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<sup>13</sup> This phenomenon mirrors the so called “ratchet effect” in economics. This effect entails incentive-paid workers to limit the amount of effort they spend on the job because they anticipate an impact of their performance in period  $t$  on the subsequently negotiated terms of the incentive plan in period  $t + 1$  (Christensen et al., 2003, p. 424).

related to salespeople's intrinsic interest in their work, a concept highly related to a learning goal orientation (Sujan et al., 1994). Bettencourt (2004) describes transformational leadership as behavior that "seeks to elevate the values, goals, and aspirations of followers beyond immediate role expectations so that they place higher priority on system and group goals such as learning and continuous improvement" (p. 168). Also, Bono and Judge (2003) found that self-concordant goals mediate the relationship between transformational leadership and job performance. They argue that transformational leaders emphasize intrinsic rewards, such as self-expression, self-consistency, and self-efficacy, rather than extrinsic rewards. In view of this, we forward hypothesis 5a:

*Hypothesis 5a. Personal recognition will positively influence the learning-goal orientation of salespeople.*

Managers that provide leadership through personal recognition reward efforts and/or achievements of their employees in terms of praise and/or acknowledgement, contingent on the achieving specific objectives (Rafferty & Griffin, 2004). Hence, personal recognition stimulates salespeople to demonstrate (or prove) their abilities in order to obtain rewards and favourable evaluations from their leaders (Sujan et al., 1994). Consequently, we put forward hypothesis 5b:

*Hypothesis 5b. Personal recognition will positively influence the performance-goal orientation of salespeople.*

Leaders that provide personal recognition explicitly acknowledge improvements in how employees perform their job. We argue that this will motivate salespeople to "experiment" with new sales approaches (Spiro & Weitz, 1990) because when these adaptive work behaviours lead to effective work outcomes, they are likely to be explicitly rewarded. In addition to the motivational component, we propose that salespeople are also likely to gain confidence in their adaptive selling skills when these adaptive efforts are recognized by their leaders. Therefore, we propose hypothesis 5c:

*Hypothesis 5c. Personal recognition will positively influence adaptive selling behavior of salespeople.*

### *3.3.6 Salesperson characteristics and performance*

**Goal Orientations.** Scholars have argued that goal orientations determine the "mental framework" of individuals in an achievement situation such as selling. In addition, it is argued that this is especially prominent in a "challenging task" such as a sales environment where strict performance targets are very common (VandeWalle et al., 1999). Goal orientations are argued to determine how individuals respond in achievement situations. A salesperson with a performance goal orientation is eager to demonstrate evidence of sales success to his manager (Weitz et al., 1986; VandeWalle et al., 2001). Consequently, we reason that salespeople with a performance goal orientation will focus his/her resources (e.g., time, energy, and support from colleagues in the selling firm) more specifically on

achieving sales targets. On the other hand, a salesperson with a learning goal orientation is eager to develop new skills, and to master new situations, a motivation that we conjecture to be very relevant in achieving sales objectives given the complexity of today's selling environment (Jones et al., 2005). In addition, salespeople with a learning goal orientation have been demonstrated to better plan their work and, put forth more effort and set higher goals in the sales job (VandeWalle et al., 1999). Managing unexpected situations is an inherent element of the sales task, and literature has pointed out that salespeople with a learning goal orientation will persist in efforts, even when they fail (Kohli et al., 1998). Therefore, we put forward hypothesis 6:

*Hypothesis 6. Salesperson performance is influenced positively by a performance goal orientation, as well as a learning goal orientation.*

### *3.3.7 Adaptive selling behavior*

The fundamental adaptive selling argument is that salespeople who are more able to adapt to different selling situations within and across selling interactions are more successful because their offerings and the way these are sold are better adapted to customer demands (Spiro & Weitz, 1990). A long-standing tradition of literature demonstrates the positive effects of adaptive selling behavior for salesperson performance. The generalization of this notion has recently been substantiated through a meta-analysis (Franke & Park, 2006). Hence, we formulate hypothesis 7.

*Hypothesis 7. Adaptive selling behavior will positively influence salesperson performance.*

### 3.4 Method

We selected the telesales industry for our study. Telesales organizations are especially interesting for the present study, because they (a) often employ a high number of sales leaders relative to salespeople, and (b) typically closely monitor and record salesperson performance by means of sophisticated IT-systems. In addition, in telesales contexts, selling tasks are performed under relatively controlled conditions making our study less vulnerable for external biases. The exploration of telesales organizations in sales force research has a long tradition (e.g., Sujan, Sujan & Bettman, 1988; de Ruyter, Wetzels & Feinberg, 2001; Szymanski, 2001), and telesales agents have been demonstrated to be representative for salespeople in general (Barrick, Stewart & Piotrowski, 2002).

Data collection proved a challenge. We had three criteria for including organizations in the study: (a) objective performance data for individual salespeople to be vacant and accessible, (b) more than four leaders to be employed by the firm, and (c) each leader should have at least three salespeople reporting to him/her. Subsequently, we proceeded through four steps to find participating organizations that wanted to participate in the study. *First*, we cooperated with a temporary work agency with a leading market-position in the labour market for telesales agents who actively communicated the goals of our study to their network of clients and prospects. *Second*, we invited companies to participate in our study during several practitioner seminars in the contact centre industry. *Third*, we were provided a member-list of the Dutch “call centre managers association” and wrote letters, explaining the goal of our study and inviting participation to more than 120 of their members. After 10 weeks, we followed-up this mailing by contacting all 120 managers by phone inviting them for a personal meeting to explain the goals of the study in more detail. Fourth, during a timeframe of 24 months, we arranged personal meetings and presented our study objectives in more detail to 20 companies that indicated their interest. This led to the commitment of 10 firms to participate. However, three companies finally decided not to participate in the study due to internal organizational reasons, leaving seven companies in our study that participated in exchange for (1) a written report and (2) a workshop on ‘sales force leadership.’

To optimize response and to avoid informants to discuss responses amongst each other, surveys were administered during working hours in a scripted format. The first author and three doctoral students in marketing collected the data at the participating organizations on-site. The data collection visits were at all times pre-planned and a conference room was always booked where agents were surveyed in batches that effectively fit the room (Mean: 13, SD: 3). To minimize operational costs for the participating organizations, we employed a schedule for all salespeople that were allowed to log-off their work for one hour. For each batch of informants, a four-step protocol was applied. First, the identity of each informant was confirmed and the hard-copy surveys were handed out. Second, respondents were asked to confirm that the leader we had indicated on the survey (their formal leader according to our organizational data) was indeed their leader. Third, a scripted instruction, explaining the structure of the survey and confidentiality was given. Fourth, respondents were asked to hand in the survey and were given the option to write-down their addresses on a blank envelope so that we could send them their individual results.

Next, we identified leaders that had not yet participated (i.e., non-respondents) by comparing organisational archives against our dataset. These leaders were sent a survey by regular mail. In addition, we identified those leaders of which less than three followers were included in the sample. These leaders were sent a package of five surveys, with a cover letter requesting them to stimulate salespeople who report to them to send back completed surveys. After this second round of data collection, we managed to obtain surveys for 752 salespeople (representing 117 leaders). A list of all salespeople participating in the study was sent out to each company, requesting salesperson performance data from corporate records. These data eventually came in for 563 salespeople in the study, who then formed our final sample. The remaining respondents were deleted for further analyses. The average age of the respondents was 28 years; 43 percent were male. The salespeople had an average company tenure of 1.14 years and 29 percent of the salespeople had obtained a bachelor's or more advanced degree.

### 3.4.1 Measures

All scales used a five-point scoring format ranging from "Strongly Disagree" to "Strongly Agree". Scales and items are shown in appendix D. Mean scores, standard deviations and intercorrelations are shown in Table 3.2.

**Transformational leadership.** Transformational leadership was measured using the fifteen-item scale developed by Rafferty and Griffin (2004), which is composed of five dimensions for which they also demonstrate discriminant validity. First, three items were used to assess *articulating a vision*. An example item for this subdimension was "has a clear understanding of where we are going" (cronbach's alpha = .72; composite reliability = .77). Second, *intellectual stimulation* was assessed using three items, for example "says positive things about the work unit" (cronbach's alpha = .75; composite reliability = .72). Third, *inspirational communication* was assessed using three items such as "challenges me to think about old problems in new ways" (cronbach's alpha = .63; composite reliability = .75). Fourth, *supportive leadership* was also assessed by three items, one of them stating "considers my personal feelings before acting" (cronbach's alpha = .86; composite reliability = .84). Finally, *personal recognition* was assessed by three items, for example "personally compliments me when I do outstanding work" (cronbach's alpha = .85; composite reliability = .85).

**Salesperson characteristics.** Learning goal orientation was measured with a nine-item scale published by Sujana et al. (1994). Examples of items from the learning orientation scale are "making a tough sale is very satisfying" and "I am always learning something new about my customers" (cronbach's alpha = .70; composite reliability = .72). Performance goal orientation was measured with a six-item scale developed by Sujana et al. (1994). Examples of items measuring salespeople's degree of performance orientation are "It is very important to me that my supervisor sees me as a very good salesperson" and "I feel very good when I know I have outperformed other salespeople in my company" (cronbach's alpha = .76; composite reliability = .81). Adaptive selling behavior was measured using the seminal ADAPTS scale developed by Spiro and Weitz (1990). This instrument

consists of sixteen items and measures the degree to which salespeople adapt their sales presentation in response to characteristics of the sales situation. A sample item is: "I try to consider how one customer differs from another" (cronbach's alpha = .86; composite reliability = .78).

***Salesperson Performance.*** We used conversion rate (the number of successful calls divided by the total number of calls made) as a measure of salesperson performance. In the telesales industry, conversion rate is one of the most important performance indicators of salespeople. For each salesperson in our study, the participating companies provided us with their achieved conversion rates for a six month time-period, which is a representative timeframe in view of other research on salesperson performance (Van Dyne, Jehn & Cummings, 2002: 65). Following other scholars that have used objective salesperson performance from different sales forces or departments (e.g., Saxe & Weitz, 1982; George, 1991; Brown & Leigh, 1996), we standardized this performance measure across all seven companies (Puffer, 1987; Van Dyne et al., 2002).

***Control variables.*** To control for potential confounding effects of transactional leadership behaviors, we control for positive and negative feedback. To measure *transactional leadership*, we employed the dichotomy between "contingent reward behavior," which is analogous to positive supervisory feedback, and "management by exception" which is analogous to negative supervisory feedback (MacKenzie et al., 2001). Based on this distinction, transactional leadership in the current study was measured using scales of Sujana et al. (1994). They identified an eight-item scale for *positive feedback*, as well as an eight item scales for *negative feedback*. An example of an item assessing positive feedback is "My supervisor tells me when I deal with customers appropriately", while an example of an item measuring negative feedback is: "My supervisor would let me know if I did not demonstrate a new product or service properly". In addition, we used included age and gender (these data were provided to us from the corporate records of participating firms), as well as organizational tenure of all salespeople as control variables in the study.

### 3.5 Results

***Overall model fit.*** Using the covariance matrix of study variables, the hypothesized model was estimated via structural equation modelling (with EQS) and the following fit statistics were obtained:  $\chi^2 = 68.15$ ,  $df = 10$ , normed fit index (NFI) = .92, comparative fit index (CFI) = .96, goodness-of-fit index (GFI) = .97, root mean square error of approximation (RMSEA) = .07 and standardized root mean residual (SRMR) = .05. Because the  $\chi^2$  statistic is significant at  $p < .001$ , the covariances reproduced by the hypothesized model differ nontrivially from observed covariances. On statistical grounds, the null hypothesis for the adequateness of the hypothesized model is therefore rejected. However, this test is sensitive to sample size. The larger the sample size (typically with  $n > 200$ ), the more likely the rejection of the model and the more likely a Type I error (Garson, 2002). As our sample size is relatively large, emphasis is placed on other indicators of goodness of fit (Singh, 1993). The

examination of the various fit indices suggests that the hypothesized model is a substantial improvement over a *null* model. In the null model, the covariances in the covariance matrix are all assumed to be zero (Garson, 2002). As NFI, CFI, and GFI are nontrivially greater than zero, the hypothesized model seems to capture a significant portion of the systematic covariation in the data. Moreover, all fit indices exceed .90, the cut-off value suggested by Bentler and Bonett (1980) for adequate fit. In addition, SRMR is .05, indicating that the specified model adequately fits the data. The average variance extracted (AVE) values are satisfactory for all model variables (Hair, Anderson, Tatham, and Black, 1998). Composite reliabilities are all above 0.60 commonly used threshold value for exploratory research (Nunnally, 1978). Table 3.3 presents the standardized path coefficients (SPC) and t-values for each hypothesized path in the model.<sup>14</sup>

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<sup>14</sup> To check for multicollinearity, we calculated and inspected Variance inflation factor (VIF) scores for all independent variables in the study. These were within acceptable parameters; indicating no problematic multicollinearity (Neter et al., 1990).

TABLE 3.2

Descriptive Statistics and Intercorrelations for the Study Constructs (N = 563)

	PF	NF	AV	IC	IS	SL	PR	PG	LG	AS	SP	Mean	Standard Deviation
Positive feedback (PF)	--											3.99	.865
Negative feedback (NF)	.617***	--										4.03	.740
Articulating a vision (AV)	.457***	.364***	--									3.86	.824
Inspirational communication (IC)	.563***	.407***	.528**	--								3.81	.802
Intellectual stimulation (IS)	.388***	.287***	.375***	.471**	--							3.20	1.01
Supportive leadership (SL)	.561***	.321***	.480***	.589***	.462***	--						3.72	.924
Personal recognition (PR)	.749***	.460***	.439***	.588***	.387***	.579***	--					4.05	.878
Performance goal orientation (PG)	.181***	.125***	0.033	.153***	.151***	.136**	.155**	--				3.28	.809
Learning goal orientation (LG)	.175***	.186**	.177**	.250***	.184**	.171**	.137**	.324***	--			3.97	.543
Adaptive selling behavior (AS)	.194***	.196***	.120**	.190***	0.027	.101**	.152**	.113**	.357***	--		3.65	.627
Salesperson performance (SP)	.072	.035	-.001	.013	-.033	-.011	.053	.089*	-.031	.090*	--	.003	.844

Notes: Correlations less than .08 are nonsignificant ( $p > .05$ )

**TABLE 3.3**

**Estimated Coefficients for the Hypothesized Paths**

Hypothesis and Expected Direction	Path	Standardized path coefficient	t-value	Hypothesis Supported
1 (+)	Vision → Performance goal orientation	-.11	-1.68**	No
<b>2a (+)</b>	<b>Inspirational Communication → Learning goal orientation</b>	<b>.25</b>	<b>3.61***</b>	<b>Yes</b>
<b>2b (+)</b>	<b>Inspirational Communication → Performance goal orientation</b>	<b>.11</b>	<b>1.56*</b>	<b>Yes</b>
<b>2c (+)</b>	<b>Inspirational Communication → Adaptive selling behavior</b>	<b>.22</b>	<b>3.01***</b>	<b>Yes</b>
<b>3a (+)</b>	<b>Intellectual Stimulation → Learning goal orientation</b>	<b>.08</b>	<b>1.36*</b>	<b>Yes</b>
3b (-)	Intellectual Stimulation → Performance goal orientation	.07	1.15	No
3c (+)	Intellectual Stimulation → Adaptive selling behavior	-.18	-2.83**	No
4 (+)	Supportive Leadership → Learning goal orientation	.03	.38	No
5a (+)	Personal Recognition → Learning goal orientation	-.32	-3.98***	No
5b (+)	Personal Recognition → Performance goal orientation	-.09	-1.07	No
5c (+)	Personal Recognition → Adaptive selling behavior	-.19	-2.29*	No
6a (+)	Learning goal orientation → Salesperson performance	-.09	-1.78**	No
<b>6b (+)</b>	<b>Performance goal orientation → Salesperson performance</b>	<b>.13</b>	<b>2.35**</b>	<b>Yes</b>
<b>7 (+)</b>	<b>Adaptive selling behavior → Salesperson performance</b>	<b>.09</b>	<b>1.76**</b>	<b>Yes</b>
<i>Controls</i>				
n.h.	Vision → Learning goal orientation	.05	.84	
n.h.	Vision → Adaptive selling behavior	.09	1.38*	
n.h.	Supportive Leadership → Performance goal orientation	.05	.70	
n.h.	Supportive Leadership → Adaptive selling behavior	-.06	-.84	
n.h.	Positive feedback → Learning goal orientation	.13	1.47*	
n.h.	Positive feedback → Performance goal orientation	.14	1.52*	
n.h.	Positive feedback → Adaptive selling behavior	.22	2.35***	
n.h.	Negative feedback → Learning goal orientation	.10	1.52*	
n.h.	Negative feedback → Performance goal orientation	.06	.91	
n.h.	Negative feedback → Adaptive selling behavior	.08	1.19	
<i>Fit statistics</i>				
$\chi^2 = 68.15, df = 10, p < .01$				
Normed Fit Index (NFI) = .95				
Comparative Fit Index (CFI) = .96				
Goodness-of-Fit Index (GFI) = .97				
Root Mean Square Error of Approximation (RMSEA) = .07				
Standardized Root Mean Residual (SRMR) = .05				
<i>Variance accounted for (R<sup>2</sup>)</i>				
Learning goal orientation			11.3%	
Performance goal orientation			5.3%	
Adaptive selling behavior			8.1%	
<b>Salesperson performance</b>			<b>3.3%</b>	

Notes: \* =  $p \leq .10$ , \*\* =  $p \leq .05$ , \*\*\* =  $p \leq .001$ . All hypothesized significant paths are bold. Paths not hypothesized are indicated by "n.h".

Overall, 11 of the 14 hypothesized paths in our causal model are statistically significant (79%). Out of these, 5 paths are in opposite directions compared to hypothesized a-priori, thus we find empirical support for 6 out of our 14 hypotheses (43%).<sup>15</sup>

**Effects on learning goal orientation.** The results support hypothesis 2a. As expected, inspirational communication is positively and significantly associated to salesperson learning-goal orientation (SPC=.25,  $p<.01$ ). In addition, the data support hypotheses 3a which predicted that a leader's intellectual stimulation is positively and significantly associated to a salesperson's learning goal orientation (SPC=.08,  $p<.10$ ). Apparently, salesperson learning goal orientations can be influenced by their leaders.

Our data do not support hypotheses 4 as the path from supportive leadership to learning goal orientation is non-significant. Moreover, hypothesis 5a does not hold, as the path from personal recognition to learning goal orientation is negative, which is in the opposite direction of hypothesis 5a where we proposed a positive relationship. Yet, the leadership behaviors in our model account for 8.1% in the variance of a salesperson's learning goal orientation. This is probably due to the relatively high SPC and t-value of inspirational communication.

**Effects on performance goal orientation.** Our data offer support for hypothesis 2b. As we anticipated, inspirational communication is positively and significantly related to salesperson performance goal orientation (SPC=.11,  $p<.10$ ). On the other hand, the results do not support hypotheses 1, where we posited that articulating a vision is positively related to salesperson performance-goal orientation. In fact, the data indicate a *negative* significant path from vision to salesperson performance-goal orientation. In addition, no support was found for hypotheses 3b, and 5b as the paths from intellectual stimulation and personal recognition to performance-goal orientation are both non-significant. Within our model 5.3% of the variance in performance goal orientation is explained.

**Effects on adaptive selling.** Hypothesis 2c predicted a positive significant relationship of inspirational communication on salesperson adaptive selling behaviour and is supported by the data (SPC=.22,  $p<.01$ ). Thus, consistent with research in selling that argues that salespeople will become more adaptive when they are intrinsically motivated (Weitz et al., 1986: 181), hypothesis 2c is supported. On the other hand, the path analysis does not offer support for hypotheses 3c and 5c. In fact, the results demonstrate that while the paths between intellectual stimulation as well as personal recognition with salesperson adaptive selling behaviour are both significant, they are both negative. Hence, it appears that transformational leadership (in the form of intellectual stimulation and personal recognition) can also make salespeople less adaptive towards customers. Collectively the leadership behaviors explain 8.1% of the variance in adaptive selling.

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<sup>15</sup> In addition to the structural equation model, we also tested our hypotheses via regression analyses (Appendix C). No significant differences in results were found.

**Effects on salesperson performance.** Although hypothesis 6a suggests a positive effect of learning goal orientation on salesperson performance, our data do not support this prediction. Instead, it demonstrates a *negative* significant effect, indicating that a learning goal orientation is dysfunctional for salesperson performance (SPC =  $-.09$ ,  $p < .05$ ). As expected salesperson performance goal orientation is significantly and positively related to salesperson performance, providing support for hypothesis 6b (SPC =  $.13$ ,  $p < .05$ ). Finally, the analyses show that salesperson adaptive selling behaviour is significantly and positively associated to salesperson performance, which grants support for hypothesis 7 (SPC =  $.09$ ,  $p < .05$ ).

The  $R^2$  for the structural equation of salesperson performance shows that 3.3% of the variance in salesperson performance is accounted for by the independent variables in the model.

### 3.6 Discussion

The goal of our study was to explore the impact of transformational leadership dimensions on key salesperson characteristics. Our results reveal the effects of transformational leadership on goal orientations and adaptive selling behaviour of salespeople and from our results, we distil three major conclusions.

*First*, while sales force researchers have been exploring the effects of adaptive selling behaviour for over two decades, up to the present, no study has demonstrated that leaders can have an impact on the adaptiveness of salespeople. In sales management literature, adaptive selling has also been conceptualized as “working smarter” (e.g., Sujan & Weitz, 1986; Weitz et al., 1986; Sujan et al., 1994; Leong, Randall & Cote, 1994; Oliver & Anderson, 1994; Rapp et al., 2006). Our empirical results that articulating a vision and inspirational communication are both positively associated, and both personal recognition and intellectual stimulation are negatively related to salesperson adaptive selling behavior, contributes substantially to practice, as it provides some critical insights in what sales force leaders in practice can do (and what to avoid) to make salespeople work smarter. In their seminal paper on adaptive selling behavior Spiro & Weitz (1990: 68) find no effect of the managerial style (i.e., freedom of action, initiation of structure and production orientation) of the salesperson’s leader with the adaptive selling behavior of the salesperson. Our findings reveal otherwise, as we show that adaptive selling behavior is significantly influenced by four out of five dimensions of transformational leadership. An inherent part of the selling function is that salesperson’s function as so called “boundary spanners” between the peripheries of the selling firm and the customer (Ingram et al., 2002). Consequently, the provision of transactional leadership (i.e., contingent feedback) is becoming less and less applicable in today’s sales organizations, due to the physical and mental distance between sales leaders and salespeople. Hence, providing fair and fact-based feedback becomes progressively difficult for leaders and even when the physical distance between salespeople and their leaders is small, current trends in selling such as increasingly demanding customers; advanced sales technology, and increased market-competition are making it growingly difficult for sales leaders to truly understand what salespeople are doing on a daily basis (Ingram et al., 2002). In view of this, our finding that transformational leadership importantly impacts salespeople is important to managers. Franke and Park (2006) argue that the costs of making salespeople adaptive (selecting, training and motivating) are relatively small, and the benefits of adaptive salespeople are not only that they perform better, but also

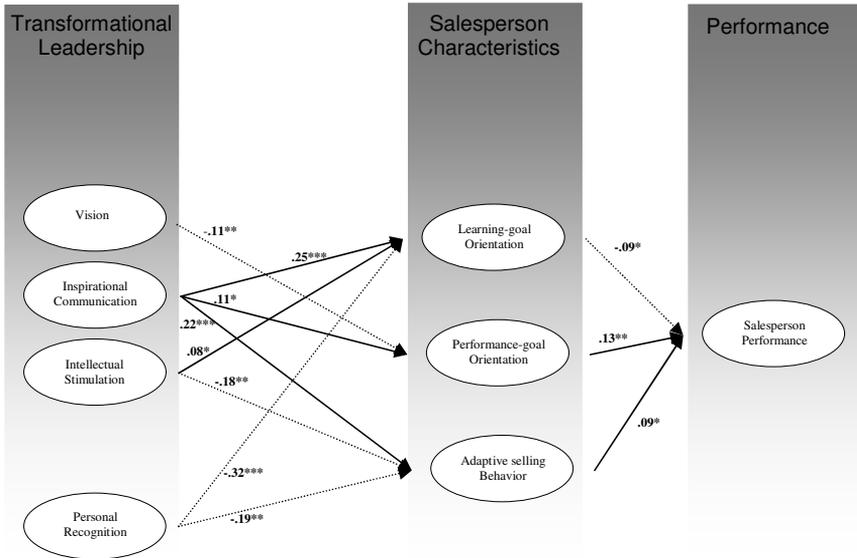
that they are more satisfied about their job. Given the high turnover rate in contact-centers, this is an important finding for managers. However, the Franke and Park (2006) meta-study also points out that experience makes salespeople more adaptive. Together with the findings of our study, this implies that effective leadership to novice salespeople can compensate for experience, and this could be an especially beneficial strategy in sales labor market segments where turnover amongst salespeople is high.

*Second*, our study addresses the call that numerous scholars have been making to explore the effects of transformational leadership on salesperson goal orientations (Sujan et al., 1994; Kohli et al., 1998; Mackenzie et al., 2001). The present study is one of the first to empirically establish the leadership-goal orientation linkage in research on salespeople. Our empirical finding that inspirational communication and intellectual stimulation foster a learning goal orientation, whereas inspirational communication is positively linked to a salesperson's performance goal orientation represents an important contribution to both scholars and managers in selling because it provides the novel insight that salesperson goal orientations are not static personality traits, but leaders can actually influence these attributes.

*Third*, our data reveal diametric effects of transformational leadership dimensions on salesperson characteristics. Hence, we advance the debate on the effectiveness of transformational leadership in sales force management (e.g., Mackenzie et al., 2001). Indeed, our data shows that transformational leadership has "two faces" in terms of its relationships with important salesperson attributes. For instance, our empirical findings demonstrate that a leader's intellectual stimulation is positively related to learning goal orientation, but negatively related to adaptive selling behavior of salespeople. Future research on transformational leadership in selling should take this into account. In particular, future researcher has to explore how a salesperson's dependence on his/her leader mediates the impact of transformational leadership on salesperson performance (Kark, Shamir & Chen, 2003).

FIGURE 3.2

Hypothesis Model With Significant Paths



Notes:  $* = p \leq .10$ ,  $** = p \leq .05$ ,  $*** = p \leq .001$ . We controlled our model for potential confounding effects of transactional leadership by including non-hypothesized paths of positive and negative feedback on all three salesperson characteristics (learning goal orientation, performance goal orientation and adaptive selling behavior). The paths that were found to be significant in the opposite direction are dashed.

While our data allows us to accept six hypotheses, we also encountered some unexpected effects. We were especially surprised by the significant effects that were in the opposite direction (dashed lines in figure 3.2). First and foremost, we did not expect to find a negative effect of a learning goal orientation on salesperson performance. In retrospect, this finding could be explained by the fact that we studied telesales agents, and telesales agents who enjoy and value learning are more likely to engage in overly lengthy sales conversations aiming to solve a customer problem, adapting to a “difficult” customer, or handling very challenging customer objections (but may pull down the conversion rate). This argument has also been raised by Kohli et al. (1998: 271), when they discussed their study that also did not find an (a priori expected) effect between learning goal orientation and salesperson performance.

### *3.6.1 Limitations and Future Research*

More and more of today’s sales organizations employ multiple sales channels amongst which a telesales contact centre (Ingram et al., 2002; Szymanski, 2001), which makes the telesales context increasingly relevant for sales force research. While our study was restricted to telesales organizations, future research could explore how different sales channels require different patterns of salesperson characteristics, and related, different types of sales force leadership.

Salespeople in today’s sales organizations have been argued to adopt new sets of responsibilities and tasks (Weitz & Bradford, 1999). Consequently, novel forms of salesforce leadership that match these new roles offer a fruitful avenue for future research. The current study explores impact of leadership behaviors on salespeople, but does not explicitly model the data according to the nested, hierarchical structure wherein salespeople are nested within the leaders to whom they report. Indeed, a recent stream in leadership literature argues that leaders and followers do not operate “in a vacuum”. Hence, multilevel study-designs have been proposed as superior research strategies to explore this issue in more depth. We invite future scholars to develop such models. These investigations could for instance include models to test how the effect of sales force leadership on salesperson performance is mediated salesperson characteristics (i.e., cross-level mediation), and/or how the effect of salesperson characteristics on salesperson performance is moderated by sales force leadership (i.e., cross-level interaction). While our study was focused on individual (salesperson) performance, recently leadership scholars have argued for investigations of how leadership affects performance at additional levels of analysis (Yammarino, Dionne, Chun & Dansereau, 2005; Burke, Stagl, Klein, Goodwin, Salas & Halpin, 2006). In selling, this implies that scholars could distinguish between *salesperson*, *salesteam*, and *salesforce* leadership, and the interaction between them. We call upon researchers to develop multilevel models of leadership in selling that move beyond the salesperson-leader dyad and, for instance, investigate the effects of “between-salesteam” differences. Indeed, we focus on salesperson performance. However, in practice, many salespeople operate in so called selling teams (Moon & Armstrong, 1994).

Our conceptual model includes goal orientations and adaptive selling behavior as characteristics of salespeople that leaders can influence. However, in view of the fact that researchers agree that a salesperson’s role ambiguity is dysfunctional for performance (e.g., Brown & Peterson, 1993), another potentially rewarding avenue for future research might be an exploration of how

transformational leadership might reduce, or buffer role stress, in particular role ambiguity (Singh & Rhoads, 1991).

This study makes explicit what many star salespeople in telesales assume implicitly: adaptive salespeople perform better. Thus, giving customers “canned presentations” is an unsuccessful strategy, even in telesales where contact centres often prescribe their salespeople to adhere to strict selling scripts. However, research shows that the adaptiveness of salespeople could substantially decrease over time. While, salespeople might start their career being very adaptive, they might --later in their career-- become experts in certain “best practice” selling routines and take more scripted sales approaches. This suggests that leaders should also adjust their leadership style over time and – in view of our findings – provide more intellectual stimulation and inspirational communication to more tenured salespeople. Future researchers should test whether these propositions hold empirically.

Finally, our study is based on cross-sectional data. Therefore, our findings could potentially suffer from common source bias. However, we took ample precautions to prevent this bias. For instance, the survey-items about leaders and those about salesperson characteristics were clearly separated in the survey in distinct parts. Moreover, the fact that we found significant negative relationships between transformational leadership dimensions and salesperson characteristics indicates that our findings are not biased. However, we do encourage future scholars to replicate our study via a longitudinal or experimental study-design. Experimental field studies could for instance include training interventions where leaders are trained in transformational leadership and the performance effects (mediated by salesperson characteristics) is explored.

## Appendix D

### Scales and Items Used in the leadership Study

#### **Transformational leadership**

##### *Articulating a vision*

1. Has a clear vision of where we are going
2. Has a clear sense of where he/she wants our unit to be in 5 years
3. Has no idea where the organization is going<sup>R</sup>

##### *Inspirational communication*

1. Says things that make employees proud to be a part of this organization
2. Says positive things about the work unit
3. Encourages people to see changing environments as situations full of opportunities

##### *Intellectual stimulation*

1. Challenges me to think about old problems in new ways
2. Has ideas that have forced me to rethink some things that I have never questioned before
3. Has challenged me to rethink some of my basic assumptions about my work

##### *Supportive leadership*

1. Considers my personal feelings before acting
2. Behaves in a manner which is thoughtful of my personal needs
3. Sees that the interests of employees are given due consideration

##### *Personal recognition*

1. Commends me when I do a better than average job
2. Acknowledges improvement in my quality of work
3. Personally compliments me when I do outstanding work

#### **Learning goal orientation**

1. Making a tough sale is very satisfying
2. An important part of being a good salesperson is continually improving your sales skills
3. Making mistakes when selling is just part of the learning process
4. It is important for me to learn from each selling experience I have
5. There really are not a lot of new things to learn about selling<sup>R</sup>
6. I am always learning something new about my customers
7. It is worth spending a great deal of time learning new approaches for dealing with customers
8. Learning how to be a better salesperson is of fundamental importance to me
9. I put in a great deal of effort sometimes to learn something new\*

#### **Performance goal orientation**

1. It is very important to me that my supervisor sees me as a good salesperson
2. I very much want my co-workers to consider me to be good at selling
3. I feel very good when I know I have outperformed other salespeople in my company
4. I always try to communicate my accomplishments to my manager
5. I spend a lot of time thinking about how my performance compares with other salespeople's
6. I evaluate myself using my supervisor's criteria

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<sup>R</sup> = Reverse Coded Item

### **Adaptive selling behavior**

1. Basically, I use the same approach with most customers<sup>R</sup>
2. I vary my sales style from situation to situation
3. I like to experiment with different sales approaches
4. I use a set sales approach<sup>R</sup>
5. I can easily use a wide variety of selling approaches
6. I find it difficult to adapt my presentation style to certain buyers<sup>R</sup>
7. Each customer requires a unique approach
8. I am very sensitive to the needs of my customers\*
9. When I find that my sales approach is not working, I can easily change to another approach
10. It is easy for me to modify my sales presentation if the situation calls for it
11. I feel that most buyers can be dealt with in pretty much the same manner<sup>R</sup>
12. I am very flexible in the selling approach I use
13. I try to consider how one customer differs from another
14. I feel confident that I can change my planned presentation when necessary
15. I do not change my approach from one customer to another<sup>R</sup>
16. I treat all of the buyers pretty much the same<sup>R</sup>

### **Transactional leadership**

#### *Positive feedback*

1. When my supervisor thinks my performance is good, he or she provides me with positive feedback
2. My supervisor makes it a point of telling me when he or she thinks I manage my time well\*
3. My supervisor commends me when he or she thinks I am using the "right" selling techniques
4. My supervisor lets me know when he or she thinks I am producing good results
5. When I make an important sale, my supervisor makes it a point of mentioning it to me
6. My supervisor tells me when I deal with customers appropriately
7. My supervisor expresses his or her approval when he sees me going about my job as he or she expects
8. When my supervisor is satisfied with my sales output, he or she comments about it

#### *Negative feedback*

1. My supervisor lets me know when he or she is upset with my performance results
2. When my supervisor thinks I have done something wrong, he or she lets me know about it
3. My supervisor makes it a point to tell me when he or she thinks I am not using the right selling techniques
4. My supervisor is prompt in letting me know when my output is below his or her expectations
5. When I deal with customers in a way which my supervisor disapproves, he or she lets me know
6. My supervisor would let me know if I did not demonstrate a new product/service properly
7. When I fail to meet his or her sales expectations, my supervisor indicates his or her dissatisfaction
8. When my supervisor doesn't find me working the way he or she expects, he or she lets me know

**Appendix E**  
**Procedure for collecting on-site data**

1. Hand over a questionnaire and a pen while confirming the identity of all respondents, as indicated on the questionnaire
2. Confirm identity of the leader to whom the salesperson reports
3. Informing respondents of the following:
  - The questionnaire consists of two parts: the first part is about you, and the second part is about *name team leader*. Please keep *name team leader* in mind while answering these questions.
  - Please tick the answer that is most applicable in your opinion; always tick only ONE answer per question.
  - Please answer ALL questions.
  - Do not talk with the other respondents in the room
  - Please raise your hand if you have any questions, one of the researchers will come to answer them.
  - The results will remain anonymous; your team leader will not receive your personal results. The results will only be presented on an aggregate level to senior management
  - Please hand in the completed questionnaire with the researchers when you are finished
4. After the questionnaire has been completed, collect it from the respondent and ask the following questions:
  - Did you indeed think of *name team leader* continuously while completing the second part of the questionnaire?
  - If you would like to receive your personal test results on your home address, please address this envelope to yourself.

Check if all the questions have been answered and if only one answer per question was ticked (if not, ask the respondent to complete the questionnaire as yet)

**Appendix F**  
**Results of Regression Analyses: Standardized Path Coefficients (t-Values)**

Independent Variables	Performance Goal Orientation	Learning Goal Orientation	Adaptive Selling Behavior	Salesperson Performance	
	Model 1	Model 2	Model 3	Model 2	Model 3
<b>Control Variables</b>					
Gender	.02 (.50)	-.00 (-.03)	-.15 (-3.56)***	-.07 (-1.63)	-.06 (-1.41)
Age	-.07 (-1.69)*	.15 (3.51)***	-.12 (3.00)***	.10 (2.37)**	.12 (2.71)***
Tenure	.06 (1.47)	-.05 (-1.15)	-.10 (-2.46)**	-.04 (-.99)	-.05 (-1.11)
Positive feedback	.12 (1.70)*	.11 (1.57)	.14 (2.03)**	.11 (1.46)	.09 (1.27)
Negative feedback	.03 (.56)	.08 (1.47)	.08 (1.55)	-.02 (-.36)	-.02 (-.39)
<b>Main Effects</b>					
Articulating a vision	-.10 (-1.85)*	.02 (.34)	.04 (.67)	-.03 (-.46)	-.01 (-.24)
Inspirational communication	.07 (1.24)*	.16 (2.68)***	.17 (2.93)***	.02 (.30)	.01 (0.22)
Intellectual stimulation	.10 (2.12)**	.08 (1.68)*	-.09 (-1.79)*	-.04 (-.89)	-.04 (-.82)
Supportive leadership	.03 (.52)	.02 (.34)	-.04 (-.64)	-.05 (-.86)	-.05 (-.85)
Personal recognition	-.04 (-.59)	-.13 (-2.05)**	-.08 (-1.26)	.03 (.39)	.02 (.33)
<b>Mediating Effect</b>					
Performance goal orientation					.13 (2.80)***
Learning goal orientation					-.12 (-2.43)**
Adaptive selling behavior					.08 (1.78)*
F value	3.35**	6.07**	6.59**	2.46*	3.38**
R <sup>2</sup>	.06	.10	.11	.03	.05
Adjusted R <sup>2</sup>	.04	.08	.09	.01	.03
ΔR <sup>2</sup>					.02
F change					4.08**

\*p < .05 (one-tailed test for hypotheses, and two-tailed test for control variables).

\*\*p < .01 (one-tailed test for hypotheses, and two-tailed test for control variables).

\*\*\*p < .001 (one-tailed test for hypotheses, and two-tailed test for control variables).

Note: N = 563.

## 4. A CROSS LEVEL EXPLORATION OF HOW AND WHEN SELLING TEAM REFLEXIVITY IMPACTS JOB PERFORMANCE OF SALESPEOPLE\*

### 4.1. Introduction

Salesperson performance is fundamental to achieve sales force productivity. Thus, understanding drivers of salesperson performance is of major importance to marketing managers. To provide insights in what drives salespeople to achieve their sales goals, scholars have explored determinants of salesperson performance for almost a century (Oschrin, 1918). Based upon an assessment of this rich stream of literature in sales management, we draw two prominent lessons. First, the salesperson's *role ambiguity*, characterized as the perceived lack of relevant information to be productive (Singh, 1998), is one of the most salient (negative) determinants of salesperson performance. Indeed, role perceptions of salespeople have been the focus of a major research stream within sales management and, at present, the field has arrived at a point where the dysfunctional effect of role ambiguity on salesperson performance is commonly acknowledged. In fact, two independent meta-analyses in the sales area have both corroborated this (Churchill et al., 1985; Brown & Peterson, 1993). Second, nearly all studies exploring salesperson performance to date have commonly investigated determinants of productivity at the analytic unit of the *salesperson* (Churchill et al., 1985; Brown & Peterson, 1993; Vinchur et al., 1998), and up to the present, "the sales performance literature has not examined sales effectiveness in a team-selling context" (Workman, Homburg & Jensen, 2003: 6).

In the current research, we propose the *selling team* as a novel unit of analysis to explain the productivity of salespeople. In particular, we build on the theoretical notion of team reflexivity -- the extent to which selling teams evaluate and modify their functioning-- and propose that selling team reflexivity can enhance salesperson performance by means of reducing role ambiguity. Additionally, we argue that this relationship may be moderated by the composition of the selling team, in particular with respect to (age) diversity. The research focus on the individual salesperson as the unit of analysis sharply contrasts with practice in today's world of selling, where salespeople are commonly required to work in so called "selling teams" (Moon & Armstrong, 1994; Moon & Gupta, 1997; Jones, Dixon, Chonko & Cannon, 2005). In contemporary selling firms, salespeople have both individual as well as team objectives and are increasingly inter-reliant on the selling teams in which they operate, in order to meet progressively complex customer demands and attain these goals (Weitz & Bradford, 1999). Take for example account managers at Heineken, who are organized in district teams and receive individual targets (and related commissions) for revenues and quantities sold, but also have so called "one-level-up targets", which represent team-goals (for which incentives also exist) such as average customer satisfaction, or customer attrition their district. Mirroring the important role of knowledge in selling (Verbeke, Belschak, Bakker & Dietz, 2008), both

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\* This chapter is based on Dietz, Schippers, and Giardini (2008)

communication within sales teams as well as sales team composition have recently been identified as “top sales-management priorities” by practitioners (Trailer & Dickie, 2006: 51). Integrating the selling team and salesperson levels of analysis to explain salesperson performance is an important theoretical contribution because it provides a fuller understanding of the sources of variation in salesperson performance.

Although researchers have long been calling for a shift in focus of the level of analysis from the salesperson towards the selling team (e.g., Cespedes, Doyle & Freedman, 1989; Malhotra, Peterson & Kleiser, 1999; Weitz & Bradford, 1999), and some conceptual work has been done (e.g. Moon & Armstrong, 1994), presently very little empirical research on team selling exists. However, “ultimately, research into team selling should help to explain factors that contribute to sales performance” (Jones et al., 2005: 193).

The goal of this study is twofold: (1) investigate how differences in reflexivity between selling teams explain differences in role ambiguity and productivity of individual salespeople; (2) explore the moderating role of selling team diversity on this effect. The present study goes beyond prior research as it presents a multi-level model that specifies differences between selling teams to impact salesperson performance. This perspective across multiple-levels will be made theoretically explicit and empirically explored. In what follows, we present our multi-level framework. Next, we describe our methods and test a number of hypotheses. Finally, we offer a set of managerial implications and make suggestions for further research.

## **4.2 Theoretical Background**

This section aims to outline the theoretical framework of the study by explaining the notions of a selling team, reflexivity, age diversity and salesperson role ambiguity.

### *4.2.1 Selling Team*

A critical task of salespeople is to create inventive and valuable propositions for customers by matching buyer needs to the competences of the selling firm (Weitz & Bradford, 1999). In today’s economy where selling is getting more and more complex and customer expectations are escalating, the demands and expectations of salespeople are ever-increasing (Jones et al., 2005). In this environment of complexity, salespeople are constantly challenged to source knowledge, and translate this into beneficial solutions for customers (Verbeke et al., 2008). Yet, as Weitz and Bradford (1999: 244) point out: “an individual salesperson does not possess the knowledge or intrafirm influence to propose and implement a program that has the potential for building a competitive advantage for the buyer-seller dyad”. Consequently, in contemporary sales forces, salespeople are getting more and more organized into selling teams so that individual salespeople can bundle their strengths in order to meet the intensive demands of customers (Jones et al., 2005). To explicitly define a selling team, we are guided by the state-of-the-art streams of scholarly work on teams in organizations (Guzzo & Dickson, 1996; Kozlowski & Bell, 2003;

Hackman, 1987), and team selling (Jones et al., 2005; Moon & Armstrong, 1994). Drawing on these literatures, we define a selling team as a group of three or more salespeople (we consider groups of two salespeople as dyads), who (1) exist to achieve organizationally relevant sales objectives, (2) share one or more common sales goals, (3) see themselves and are seen by others as a social entity, (4) are interdependent because of the tasks they perform as members of a group, (5) maintain and manage boundaries, and (6) are embedded in a selling firm.

#### *4.2.2 Team Reflexivity*

Team reflexivity can be defined as “the degree to which team members overtly reflect upon, and communicate about the group’s objectives, strategies (e.g., decision-making) and processes (e.g., communication), and adapt them to current or anticipated circumstances” (West, 2000: 296). The construct of team reflexivity has been identified as an important antecedent of team-learning and is seen as a key factor in the effectiveness of work teams in general (West, 1996; 2000; Schippers et al., 2007; Schippers, Den Hartog, Koopman & Wienk, 2003). Team reflexivity can be notably distinguished from other concepts within basic and applied research, such as coworker feedback (e.g., Kohli & Jaworski, 1994), feedback-seeking behavior (e.g., VandeWalle, Ganesan, Challagalla & Brown, 2000), transactive memory (e.g., Anand, Manz & Glick, 1998), internal communication (e.g., Montoya-Weiss, Massey & Song, 2001), and quality circles (e.g., Banker, Field, Schroeder & Sinha, 1996). These concepts assume team reflection and explicit discussions to take place, without specifying it. As such, the concept of team reflexivity, which specifies a within-team process of sharing and elaborating on information, has theoretical value beyond constructs in which actual within-team processes remain unspecified (Schippers, Edmondson & West, 2006; West 2000; cf Gurtner, Tschan, Semmer & Nägele, 2007). Thus, compared to related constructs, reflexivity is much more specific about the actual process of information handling within teams. Indeed, prior research has distinguished team reflexivity from related constructs like feedback-seeking behavior, learning styles, and proactive personality (Schippers et al., 2007).

In general it can be noted that in comparison to non-reflexive selling teams, salespeople who collaborate in reflexive selling teams allocate more resources to explicit and deliberate evaluation of the team’s priorities and selling approaches. This could for instance imply discussions in the selling team about issues such as how to penetrate a market segment, deal with a complex customer request, or persuade a buying center (West, 2000). While organization scholars have emphasized the role of organizational learning and adaptation, the role of team learning and reflexivity for team functioning has long been ignored. Especially the task-clarifying function of reflexivity has been given only modest research attention (cf. West, 2000).

#### *4.2.3 Age Diversity*

Diversity refers to “differences between individuals on any attribute that may lead to the perception that another person is different from self” (van Knippenberg & Schippers, 2007: 517; see also: Jackson, 1992; Triandis, Kurowski & Gelfand, 1994; Williams & O’Reilly, 1998; Harrison & Klein, 2007).

Thus, diversity is inherently a team-level attribute. Age diversity represents the variation in age (i.e., salespeople) in a team. For instance, a selling team high on age diversity consists of team members that differ greatly in age. In their review of the team-diversity literature, Milliken and Martins (1996) distinguish between observable and non-observable types of team diversity and propose that particularly observable types of diversity, such as age diversity, are likely to have important effects on a team's functioning.

Diversity research in general has been guided by two theoretical underpinnings: *social categorization* and *information/decision-making* (Williams & O'Reilly, 1998). The social categorization perspective hypothesizes that similarities and differences between team members, such as age, form the basis for a process of categorization in which team members classify each other into subgroups according to their attributes. In diverse teams this may lead to the formation of subgroups within the team, and consequently diversity will have a *negative* effect on team effectiveness. On the other hand, the information/decision perspective predicts *positive* effects of diversity on team effectiveness, mainly because more diverse teams are expected to process information differently, as its diverse members bring differing viewpoints to the team discussion (Williams & O'Reilly, 1998). This, in turn, is expected to lead to positive outcomes such as more team creativity and increased team productivity. Indeed, some empirical evidence shows that diverse groups consider a greater range of perspectives and generate more high-quality solutions (Hoffman & Maier, 1961; Watson, Kumar & Michaelson, 1993). Thus, diversity in team composition can be potentially valuable for team functioning (Cox, Lobel & McLeod, 1991). Scholars in the field of selling have thus far implicitly tended to embrace the information/decision perspective, and advocated to build diverse sales teams because: "...diversity on sales teams increases the probability of developing creative, win-win solutions..." (Weitz & Bradford, 1999: 249). However, at present, empirical research exploring the actual effects of diversity within selling teams is very scarce.

In the current paper, we are especially interested in age diversity, since team members differing in age may have different views on the same selling related problem. Based on a comprehensive review and synthesis of diversity research in organizations, Williams and O'Reilly (1998) conclude that research on age diversity indicates that teams high on age diversity have less effective group processes. For example, age diversity has been found to lead to less innovation (Zajac, Golden & Shortell, 1991), and less frequency of communication (Zenger & Lawrence, 1989). In a sales context, Ely (2004) recently showed that in selling teams with high age diversity, disagreement about objectives, priorities and strategies are more likely to occur than in selling teams with low age diversity.

#### 4.2.4 Salesperson Role Ambiguity

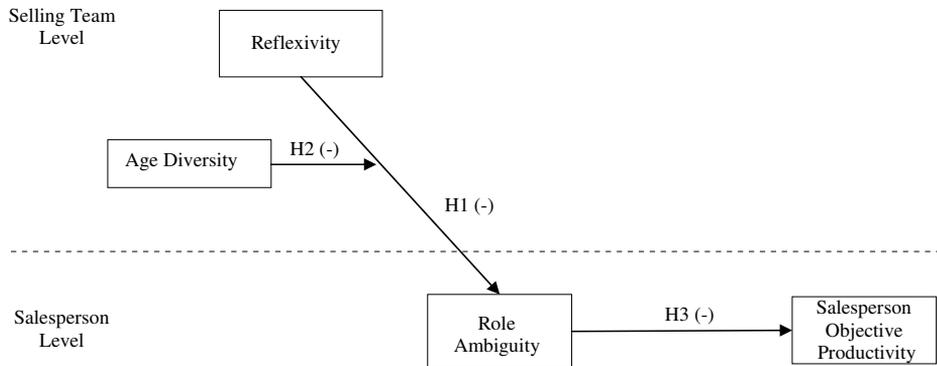
Salesperson role ambiguity is defined as "the perceived lack of information a salesperson needs to perform his or her role adequately and his or her uncertainty about the expectations of different role set members" (Singh, 1998: 70). Thus, role ambiguity is present when salespeople feel that they have insufficient information in order to perform their selling tasks effectively, and are uncertain about the demands and expectations of others (i.e., role partners) such as customers, supervisors, or members of the

selling team. A salesperson could for instance perceive a lack of knowledge about the internal procedures of the selling firm for handling unusual customer requests, or perceive a lack of knowledge to make an informed decision about which accounts to select when resources are limited and priorities have to be set. Besides role ambiguity, research on role perceptions in sales has proposed related, but considerably different constructs, in particular: role conflict and role overload (e.g., Singh, Goolsby & Rhoads, 1994; Singh, 1998). Role conflict is the perceived inequality between requirements and expectations of different role partners. For instance, when salespeople experience the demands of customers and supervisors as clear but conflicting, they experience role conflict but no role ambiguity. Role overload refers to the perceived surplus of job demands in comparison to perceived personal motivation and abilities. For example, when salespeople experience the expectations of customers as clear but unachievable in a given timeframe, they experience role overload but no role ambiguity. Thus, role ambiguity emphasizes the perception of requirements and expectations being unclear. At present, there is a rich body of scholarly literature on role ambiguity in selling and, as Singh (1993: 12) puts it: “the significance of this literature stems from sound theorizing about and consistent empirical support for the relationship between role ambiguity and key job outcomes”. Indeed, the field agrees on the dysfunctional effects of role ambiguity for the productivity of salespeople (e.g., Brown & Peterson, 1993).

### 4.3 Hypotheses

Our research model and hypotheses are depicted in Figure 4.1. In the following, we outline our hypotheses.

**FIGURE 4.1**  
**Multilevel Hypotheses Model**



#### 4.3.1 Selling Team Reflexivity and Salesperson Role Ambiguity

Based on the information/decision making perspective (Van Knippenberg, De Dreu & Homan, 2004), we reason that the sum of perspectives, knowledge, and expertise that selling team members bring to the team, has the potential to serve as a valuable knowledge resource for salespeople (Leong, Bush & Roedder, 1989). However, individual salespeople can only benefit from this accumulation of knowledge after elaboration of task-relevant knowledge (exchange, discussion and integration of ideas, knowledge and insights, relevant to the group's task), thus when the information is *shared* within the selling team (Jones et al., 2005; Brodbeck, Kerschreiter, Mojzisch & Schulz-Hardt, 2007). The process of team reflexivity actively exposes the knowledge base within selling teams at the disposal of the salesperson. Much of the knowledge that salespeople need to be successful in their professional selling role is "tacit" (Sternberg & Horvath, 1999), as well as "sticky" in the sense that it will not easily be transferred without an active effort (Szulanski, 2000). Within a reflexive selling team, knowledge on the effectiveness of selling strategies (e.g., based on best practices), is likely to be shared amongst team members. Hence, team reflexivity infuses salespeople with relevant knowledge, such as information about customer traits, motives, or behaviors that previously remained unshared, among different selling team members (e.g., Szymanski, 1988; Sujan et al., 1988; cf. Van Knippenberg et al., 2004). Teams that are more reflexive, share more task relevant information (Schippers, Edmondson & West, 2006) and a reflexive selling team overtly evaluates past selling-related decisions and draws lessons from them for the future (West, 2000). Thus, we argue that selling team reflexivity denotes the sharing of relevant information about effective versus less effective strategies that salespeople could employ. In consequence, we posit that the salespeople that make up the selling team gain clarity on how to achieve their sales objectives and thus become less role-ambiguous. Thus, salespeople within a reflexive selling team are better enabled to draw on the team's collective knowledge base and thus better informed on task relevant aspects, such as the effectiveness of certain selling strategies, or particular customer experiences with the selling firm's products or services. As a consequence, salespeople that are part of a reflexive selling team are expected to perceive fewer insufficiencies, with regard to the information considered necessary to adequately perform selling tasks. As a result, we present hypothesis 1:

*Hypothesis 1. Selling team reflexivity and salesperson role ambiguity will be negatively related.*

#### 4.3.2 Interaction of Selling Team Reflexivity and Age Diversity

Sales researchers have long noted that: "salespeople develop and change over time in a variety of ways" (Cron, 1984: 42), and age is evidently one of them. For instance, sales research has shown that younger salespeople have significantly more positive perceptions of sales force automation (SFA) technology than older salespeople (Speier & Venkatesh, 2002). Salespeople born in different times are in different life-stages and might also have different aspirations and ambitions (Sturman, 2003). Older salespeople are likely have different skill sets and knowledge-bases of selling situations, customer types,

and selling strategies than younger salespeople (e.g., Spiro & Weitz, 1990; Weitz et al., 1986). We reason that salespeople who vary in age also know a different set of people (e.g., customers and other role partners), have different formal and informal networks, are likely to have dissimilar selling experiences, and have divergent perspectives on selling strategies. More generally, salespeople of different ages will likely have different outlooks on life (Williams & O'Reilly, 1998).

Whereas in non-reflexive selling teams these differences are prone to remain latent, we reason that when teams high on age diversity form the team's input, the process of reflexivity and overtly exchanging (differing) thoughts and opinions, may likely make their dissimilarities become more apparent. As team reflexivity requires content – information, experience, or conclusions – for salespeople within a selling team to reflect upon (Cronin & Weingart, 2007). Reflexive selling teams that are high on age diversity will likely discuss and evaluate a greater variety of content (Jackson & Joshi, 2004). As a consequence, we reason that the salespeople within these teams reflect on a broader scope of demands and expectations of a more diverse, and dissimilar set of role set partners, such as customers or managers (Singh, 1993; Rhoads, Singh & Goodell, 1994). To understand the interactive effect of reflexivity and age diversity on role ambiguity, consider that role ambiguity entails the gap that salespeople experience between (a) the information which they perceive to be required in order to be successful, compared to (b) the information available to them (Kahn, 1973: 4). We speculate that reflexivity in teams with high age diversity affects role ambiguity in two ways. First, within selling teams with high age diversity, salespeople take notice of a greater variety of selling strategies and experiences of other salespeople. This may lead them to become more insecure of the selling strategies to select, and in consequence, perceive more information to be needed in order to be successful. Second, salespeople acquire information from people in different life stages, which could make them insecure about their own assumptions and the importance of the information available to them, lowering the perceived level of relevant information to be successful, as a consequence. For instance, older salespeople could become less confident of the “habitual routines” they assumed to be effective, when critically challenged by younger salespeople (Gersick & Hackman, 1990). On the other hand, young account-managers might become less confident of the importance of freshly acquired knowledge in formal training programs (e.g., MBA sales courses), when insights obtained from such programs are criticized by older salespeople. Thus, the collective capability to learn and reflect might become a handicap for the individual members of the selling team.

Salespeople in selling teams with high levels of age diversity are from different generations and are likely to have different views, or so called “representational gaps”, or differences between team members about the definition of a team's problem, on how to achieve sales goals (Cronin & Weingart, 2007). For instance, we speculate that younger salespeople, who still have a long career ahead of them, are more probable than older salespeople to incorporate the effects of the team's selling strategies on their own careers. We conjecture that when teams with high age diversity engage in reflexivity, the representational gaps between salespeople of different generations are likely to lead to misunderstanding and role ambiguity (Cronin & Weingart, 2007: 768). For example, reflexivity is likely to cause role ambiguity for younger salespeople when older salespeople are unsuccessful in “breaking down” their knowledge in order to

transfer it to younger colleagues. In line with this reasoning, Ely (2004) recently demonstrated in a study of 486 bank retail branches, that high cooperation and teamwork especially pays off in productivity gains for teams that are low on age diversity.

In selling teams high on age diversity, individual members are observably different. Therefore, based on social categorization theory (e.g., Tsui, Egan & O'Reilly, 1992), we reason that in teams high on age diversity, members are likely to categorize themselves and others in distinctive age categories. Indeed, "age is a visible demographic characteristic that, from the social categorization perspective, may easily affect group process" (Williams & O'Reilly, 1998: 102), and empirical evidence shows that socially connected members within teams will evaluate their socially connected team members more favorably (Thomas-Hunt, Ogden & Neale, 2003). Hence, age diversity increases conflict and complicates internal communication in teams (Ancona & Caldwell, 1992). As a consequence, when teams high on age diversity engage in team reflection, the salespeople in the team might view contributions to the team's reflexivity process that salespeople from older or younger "age categories" make as non-relevant to their personal success. For example, an older salesperson might not be interested in a younger salesperson's suggestions on how the team could potentially create new customer networks via online communities, while a younger salesperson may perceive the suggestions made by an older salesperson, and that are based on how he or she developed customer networks in the past, as irrelevant. On the other hand, when selling teams that are homogeneous in age engage in team reflection, we reason that team members are more like-minded and view each other's contributions to the team's reflexivity process as relevant for one's own sales performance. Thus, we argue that salespeople in selling teams that are low in age diversity will likely evaluate the content of the reflexivity process --i.e., selling strategies, tasks and objectives-- as useful. Hence, compared to teams high on age diversity, we argue that in teams low on age diversity reflexivity is less likely to lead to "information conflict" (i.e., different perspectives on the meaning of information), or representational gaps, as reflections are easier to relate to (Cronin & Weingart, 2007). Recently, authors have indeed demonstrated that reflexivity can be dysfunctional when information perceived as useless is discussed (Gurtner et al., 2007). Salespeople identify less well with others in a team of different ages than those who have a similar age (Williams & O'Reilly, 1998). As a consequence, the information that is reflected upon by selling team members of a similar age may well be perceived as more relevant in order to perform well in selling by the team's members.

While cross-level effects of age diversity of teams on individual attributes are rare, Tsui and O'Reilly (1989) showed that age diversity in supervisor-subordinate dyads leads to higher levels of role ambiguity, experienced by subordinates. Moreover, Judge and Ferris (1993) reported age diversity in dyads between supervisors and subordinates also to be negatively related to the level of positive affect and performance evaluations that subordinates received from supervisors. In line with leadership scholars who argued that group discussions in order to learn from subordinates are dysfunctional and should be avoided by leaders when there is conflict over preferred solutions amongst subordinates (Vroom & Jago, 1988), we reason in the current research that team reflexivity leads to salesperson role ambiguity when age

dissimilarity in a team is high, but lowers salesperson role ambiguity in selling teams where there is little age dissimilarity. Consequently, we put forward hypothesis 2.

*Hypothesis 2. The negative relationship between selling team reflexivity and salesperson role ambiguity is moderated by age diversity: For selling teams high on age diversity, the relationship between team reflexivity and salesperson role ambiguity is positive. In contrast, for selling teams low on age diversity, the relationship between team reflexivity and salesperson role ambiguity is negative.*

#### *4.3.3 Role Ambiguity and Salesperson performance*

In the literature on role stress, the consensus is that role ambiguity is negatively related to salesperson performance (e.g. Singh, 1998; Behrman & Perreault, 1984; Franke, Behrman & Perreault, 1982; Lysonski & Johnson, 1983; Churchill et al., 1985; Brown & Peterson, 1993). The fundamental mechanism behind this negative effect is straightforwardly formulated by Behrman and Perrault (1984), who argue that “simply put, it is hard to do the job well if the rep is unsure about how time and effort should be allocated, or what will be rewarded” (p. 13). To understand this negative relationship, remember that salespeople who experience role ambiguity believe that they lack important information that is needed to perform well (Singh, 1993). As a consequence, role ambiguity will lead to ineffective ways in which salespeople channel their motivation, time, skills and other resources (Jackson & Schuler, 1985). For role ambiguous salespeople, demands and expectations of role set partners such as customers and/or supervisors are perceived as vague, and consequently it is unclear to them which selling activities deserve more priority than others (Behrman & Perrault, 1984; Singh, 1993). Hence, we put forward hypothesis 3.

*Hypothesis 3. Role ambiguity is negatively related to salesperson performance.*

#### *4.3.4 Indirect Effect*

Role ambiguity is a psychological state in which individuals perceive a lack of relevant knowledge to fulfill their job. More specifically, salesperson role ambiguity represents the salesperson’s perception of the difference between the level and type of knowledge, which is available, and the level and type of knowledge, which is required to be successful (Singh, 1993). We posit that reflexivity and the learning and evaluation of effective and ineffective selling strategies collectively with other selling team members enables salespeople to achieve a psychological state where they are more comprehensive of their role, which then leads them to become more productive (West, 2000). For instance, salespeople could learn from others in their selling team from the “mistakes” they made in the past in dealing with a key account. However, we conjecture that the locus of what is reflected upon, the type of selling situations, nature of sales strategies, and reflections on selling processes in the selling team will be a function of the age diversity of the salespeople in the team. Thus, we reason that role ambiguity is a process through which the

interaction of selling team reflexivity and age diversity impacts salesperson performance, and put forward hypothesis 4.

*Hypothesis 4. Role ambiguity will mediate the relationship between the interaction of selling team reflexivity and age diversity, and salesperson performance.*

## **4.4 Method**

This section explains the methods used to test the hypotheses. After a description of the procedure and respondents, the operationalizations of the study constructs are discussed. Next, we present justification of the aggregation of data and elaborate on the exact analytical methods used.

### *4.4.1 Sample*

As Jones et al. (2005: 193) argue: “the nature of team selling can make the collection of primary data particularly difficult”. Via an announcement in the e-mail newsletter of the alumni network of a leading Dutch business school, we called upon firms to participate in a study on “team selling”. After personal visits and presentations to twelve companies, nine selling firms from various industries (real estate, human resource management services, logistics, electronics, telecommunication, industrial machinery, and information technology services) with business-to-business sales forces agreed to participate (67%) in our study, in exchange for a written report and a workshop for management, as well as individual “feedback reports” for participating salespeople. Participating firms were asked to provide lists of selling teams and the names and e-mail addresses of the individual salespeople of which these teams are made-up. We received this information for 39 selling teams, in which 163 salespeople were nested in total. Discussions and observations evidently indicated that these groups operate as teams and that they were seen by others and themselves as teams. All selling teams had collective goals that required coordination, frequent interaction and the sharing of knowledge and resources between its members. In addition to collective sales objectives, all selling team members also had individual sales goals.

Via e-mail, personalized online surveys were first pre-announced and subsequently distributed one week later. The survey was developed using an advanced online survey research tool (Globalpark). With the invitation to participate, all respondents received a personal login code as well as a signed “statement of confidentiality” on university letterhead. When respondents logged-in, their membership of the selling team was confirmed (as in: “according to our files, you are a member of the selling team of John, Bill and Mary. Is that correct?”). At the end of the survey, respondents could opt to provide their home address to receive a summary of their personal data in a confidential way. We received 149 salesperson surveys (91%). After scrutinizing the data for selling teams from which we had received three or more salesperson surveys, and for salespeople for whom individual objective sales performance data was available and accessible in company records, we removed 18 salespeople from our study.

Our final sample consisted of 131 salespeople, nested in 33 selling teams. The sample had the following characteristics: The average age was 33.55 years and 64 percent were male. Furthermore, 66 percent of the salespeople had obtained a bachelor's or advanced college degree. The salespeople had average company tenure of 4.16 years and, on average, had been an active member of their current selling team for 1.72 years. The average selling team had 4.17 members (ranging in size from 3 to 9 salespeople). The average response rate per team was 92 percent.

#### 4.4.2 Measures

**Role ambiguity.** Role ambiguity was measured by a shortened version of the Rizzo, House and Lirtzman (1970) scale (For all scale items used in the study, see appendix A). The scale consisted of six items, and the cronbach's alpha for this scale is .82 (composite reliability = .79). A sample item is: "I know what my responsibilities are". Items were rated on a scale ranging from 1 (strongly disagree) to 7 (strongly agree).

**Team reflexivity.** We assessed team reflexivity with a seven-item scale developed by Schippers et al. (2007) and adapted some items to better fit the sales context. The cronbach's alpha for this scale is .91 (composite reliability = .93). A sample item is: "We talk about different ways in which we can reach our sales objectives", or: "During task execution, we stop to assess whether the sales team is on the right track". Items were rated on a scale ranging from 1 (strongly disagree) to 7 (strongly agree).

**Age diversity.** Company records were used to determine the age of all salespeople (also non-respondents). Following a procedure advised by Allison (1978) for continuous variables and consistent with many other studies of diversity in organizations (e.g., Pelled, Eisenhart & Xin, 1999; Jackson & Joshi, 2004), we then calculated the coefficient of variation for each selling team (standard deviation divided by the mean) to operationalize age diversity.

**Salesperson performance.** For each salesperson in our study, the participating companies provided the sales volumes achieved along with the targets for a one-year period, which were taken from company records. Salesperson performance was subsequently measured as the objective percentage of sales target achieved, in terms of generated revenues.

**Control variables.** To reduce potential confounding effects, we controlled for several variables. At the level of the salesperson, we controlled for individual salespeople's age and gender. At the level of the selling team, we controlled for the size of the selling team, as well as for the selling team's mean age. These data were also provided from company records of participating firms.<sup>16</sup>

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<sup>16</sup> The average variance extracted (AVE) values are satisfactory for all model variables (Hair, Anderson, Tatham, and Black, 1998).

#### 4.4.3 Aggregation of reflexivity data

While the respondents of the study were salespeople, our measure of selling team reflexivity is a team-level construct and was aimed at the selling team level. Thus, we need to justify the aggregation of individual perceptions of this construct. The ICC (1) and ICC (2) scores for selling team reflexivity were .22 and .70 respectively. To further assess within-team agreement, we calculated the average  $r_{wg(j)}$  value of selling team reflexivity, across all teams. This value was introduced by James, Demaree and Wolf (1984) and expresses the inter-rater agreement within teams. For our teams  $r_{wg(j)}$  was .70, suggesting that, for selling team reflexivity, aggregation to the team level is indeed justified (James, Demaree & Wolf, 1993). These results provided sufficient statistical rationale to aggregate our data to the team-level and proceed with further analyses (James, 1982; Bliese, 2000).

#### 4.4.4 Analytical approach

We used hierarchical linear modeling (HLM) to test hypotheses 1 and 4, as they both represented cross-level effects (HLM; Bryk & Raudenbush, 1992). HLM is the preferred analytical approach when one relates variables of two different analytical levels. In the present case we use variables on the individual salesperson level (role ambiguity, salesperson performance) and on the selling team level (team reflexivity, age diversity). HLM allows the simultaneous processing of data from the two levels without losing important information. At the same time, HLM provides the opportunity to model cross-level effects. Moreover, in contrast to the Ordinary-Least-Square approach, HLM accounts for the fact that, in our hierarchically nested data design, the measurements at the salesperson level are not independent (i.e., nested in selling teams). Role ambiguity, group reflexivity and age diversity have been centered around their grand mean value (across all salespeople in the sample) because this approach is suggested for multilevel mediation models and because it reduces potential problems with multicollinearity (Bryk & Raudenbush, 1992; Hofmann & Gavin, 1998). The moderator variable was computed as the product of the mean-centered variables group reflexivity and age diversity, but it was not centered itself (see Aiken & West, 1991).

Hypothesis 3 predicts a relationship between two variables at the same analytic level: *salesperson* role ambiguity, and *salesperson* performance, thus it is not necessary to analyze this effect with HLM. However, we do use HLM to test this hypothesis in order to estimate the strength of the relationship between salesperson role ambiguity and salesperson performance in the same statistic (i.e.,  $\gamma$ ) as the relationship between selling team reflexivity and salesperson role ambiguity. Both of these paths are required to be expressed in the same statistic for the subsequent mediation analyses of our research.

As hypothesis 4 predicts mediated moderation, the predictor variable does not represent one variable, but the interaction term between selling team reflexivity and age diversity.<sup>17</sup> The model behind hypothesis 4 is characterized as a “2 → 1 → 1” multilevel mediation model (Krull & MacKinnon, 2001), as we conjecture the initial variable (i.e., the interaction term) to be on the selling team level (or, level 2), and

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<sup>17</sup> This is different from moderated mediation, where it is expected that an indirect effect varies significantly in magnitude over the range of a certain moderator value (Bauer, Preacher & Gil, 2006).

the mediator (i.e., role ambiguity), as well as the outcome variable (i.e., salesperson performance) to be at the salesperson level (or, level 1). Testing hypothesis 4 implies testing for mediation. The classical methodology to test for the effects of mediation is Baron and Kenny's (1986) approach (which was later updated by Kenny, Kashy & Bolger [1998]). This approach prescribes four criteria for mediation. First, the predictor variable should be correlated with the outcome variable. Second, the predictor variable should be correlated with the mediating variable. Third, the mediating variable should be correlated with the outcome variable. Fourth, controlling for the mediating variable, the effect of the predictor variable on the outcome variable should either decline in significance (i.e., partial mediation), or become non-significant (i.e., full mediation). Lately, the Baron and Kenny (1986) approach has received considerable criticism, for instance, MacKinnon, Lockwood, Hoffman, West and Sheets (2002) point out that the Baron and Kenny (1986) method does not specifically estimate and test the indirect effect.

Based on a literature review of the state-of-the-art in (multilevel) mediation analysis methodology, we diverge from Baron and Kenny's (1986) approach and instead use the bootstrapping method to test hypothesis 4, for reasons outlined by Shrout and Bolger (2002). Indeed, multiple authors in marketing (e.g., Rucker & Galinsky, 2008; Ye, Marinova & Singh, 2007; De Luca & Atuahene-Gima, 2007) and management (e.g., Giessner & van Knippenberg, 2008; Eisenbeiss, Boerner & van Knippenberg, 2008; Smith, Collins & Clark, 2005; Schneider, Ehrhart, Mayer, Saltz & Niles-Jolly, 2005) have applied the bootstrapping method to test for mediation. Recently, Pituch and Stapleton (2008), after comparing different methods, explicitly recommend bootstrapping over and beyond other methods for mediation analysis, and in particular for  $2 \rightarrow 1 \rightarrow 1$  indirect multilevel effects, like ours. In addition, bootstrapping is especially recommended when sample sizes are moderate or small (Shrout & Bolger, 2002). Indeed, our sample is relatively small (salespeople  $n = 131$ , selling teams  $n = 33$ ), thus bootstrapping is an especially suitable analytic strategy to test hypothesis 4. We apply the parametric bootstrap method, which involves the use of parameter estimates between the independent variable and the mediator as well as the mediator and the dependent variable. These parameter estimates are subsequently used to generate a sampling distribution of the indirect effect (Efron & Tibshirani, 1986; MacKinnon, Lockwood & Williams, 2004). In this method, a 95% confidence interval (CI) for the population indirect effect is created and subsequently used to determine statistical significance.

## 4.5 Results

Table 4.1 provides means, standard deviations, and correlations for all variables, as well as alpha reliabilities for measures when applicable.

**TABLE 4.1**

**Means, Standard Deviations, Intercorrelations and Reliabilities of the Variables<sup>a</sup>**

Variables	M	SD	1	2	3	4
Salesperson level						
1. Age	33.55	6.81	--			
2. Gender <sup>b</sup>	.36	.48	-.23**	--		
3. Role ambiguity	2.94	.85	-.08	.06	(.82) <sup>c</sup>	
4. Salesperson performance	104.63	24.64	.15 <sup>†</sup>	-.17*	-.17 <sup>†</sup>	--
Selling-team level						
1. Team size	4.09	1.81	--			
2. Reflexivity	5.09	.63	-.10	(.91)		
3. Mean age	33.20	4.51	.16	-.30 <sup>†</sup>	--	
4. Age diversity	.16	.08	-.09	.17	.37*	--

a Salespeople  $n = 131$ ; Selling teams  $n = 33$

b Coded as male, 0; female, 1.

c Cronbach's alphas are on the diagonal when applicable.

<sup>†</sup>  $p < .10$

\*  $p < .05$

\*\*  $p < .01$

Two-tailed tests.

#### 4.5.1 Tests of Hypotheses 1-3

**Hypothesis 1.** Hypothesis 1 is a cross-level hypothesis, which states that reflexivity, a variable at the selling team level, will be negatively related to role ambiguity, a variable at the salesperson level. In order for hypothesis 1 to be supported, there has to be significant between-selling team variance in salesperson role ambiguity (Hofmann, 1997). Thus, using HLM, we estimate a null model in which no predictors are specified for either the level 1 (salesperson) or level 2 (selling team) function to test the significance level of the level 2 remaining variance in the intercept ( $\tau_{00} = 0.128, p < .001$ ). The null model also provides information for computing the intraclass correlation coefficient, which indicates the proportion of between-groups variance relative to the total variance exhibited by a variable. This statistic represents the maximum amount of variance in a level 1 variable that can potentially be explained by a level 2 predictor variable. Our calculation shows that 18 percent of the variance in salesperson role ambiguity resides between selling teams (Bryk & Raudenbush, 1992; Raudenbush & Bryk, 2002). Finally, we used an intercepts-as-outcome model with selling team reflexivity as the level 2 predictor and salesperson role ambiguity as the level 1 outcome to test hypothesis 1. As reported in Table 4.2 (fourth column), there is a negative and significant effect of team reflexivity on role ambiguity ( $\gamma = -0.380, p < .05$ ). Corresponding to our expectations, salespeople in more reflexive selling teams experience less role ambiguity than those in less reflexive selling teams. Thus, hypothesis 1 is supported by the data.

**TABLE 4.2**  
**Hierarchical Linear Modeling Results for Salesperson Role Ambiguity<sup>a</sup>**

Variable	Null model	Salesperson-Level Controls	Adding Team- Level Main Effects	Adding Team- Level Interaction Effect
Intercept	2.927** (0.091)	3.098** (0.291)	3.601** (0.324)	3.620** (0.307)
Level 1				
Age		-0.014* (0.006)	-0.028** (0.008)	-0.028** (0.008)
Gender		0.207 (0.148)	0.196 (0.139)	0.183 (0.141)
Level 2				
Team size			-0.006 (0.043)	-0.017 (0.036)
Reflexivity			-0.380* (0.144)	-0.157 (0.151)
Mean age			0.049* (0.022)	0.045* (0.020)
Age diversity			-0.827 (0.838)	-1.934 <sup>†</sup> (0.980)
Reflexivity X age diversity				5.859* (2.338)
R <sup>2</sup> <sub>within groups</sub>		0.054		
R <sup>2</sup> <sub>between groups</sub>			0.443	0.643
Model deviance	321.608	326.732	323.355	313.352

<sup>a</sup> Salespeople (level-1)  $n = 131$ ; Selling teams (level-2)  $n = 33$ . HLM3 analysis was used. Entries corresponding to the predictors in the first column are estimations of the fixed effects ( $\gamma_s$ ). The standard errors of the effects are in parentheses.

<sup>†</sup>  $p < .10$

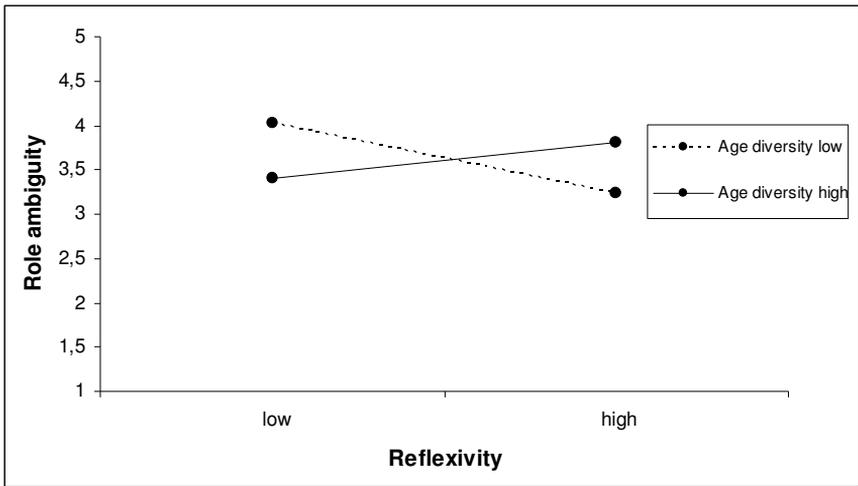
\*  $p < .05$

\*\*  $p < .01$

Two-tailed tests.

**Hypothesis 2.** Table 4.2 (final column) shows that, as predicted, the negative relationship between selling team reflexivity and salesperson role ambiguity is significantly moderated by age diversity ( $\gamma = 5.859, p < .05$ ). Supporting our hypothesis, Figure 4.2 shows that the relationship between team reflexivity and salesperson role ambiguity is positive for selling teams *high* on age diversity, while the relationship between team reflexivity and salesperson role ambiguity is negative for selling teams *low* on age diversity. Hence, our analyses provide support for hypothesis 2.

**FIGURE 4.2**  
**The Moderating Effect of Age Diversity on the Selling Team Reflexivity Salesperson Role Ambiguity Relationship**



**Hypothesis 3.** Controlling for age as well as for gender, our analysis showed that salesperson role ambiguity indeed has a significant negative effect on salesperson performance ( $\gamma = -6.658; SE = 3.039, p < .05$ ). Hence, hypothesis 3 is supported by our data. As predicted, and in line with previous work on role ambiguity, salespeople who experience less role ambiguity perform better than those who experience more role ambiguity.

**4.5.2 Test of Hypothesis 4**

Hypothesis 4 stated that role ambiguity (on the salesperson level) would mediate the effects of the interaction of reflexivity and age diversity (both on the selling team level) on salesperson performance. HLM analyses of the two relevant paths for this indirect effect both demonstrated significant effects. The gamma-value and standard error of the path of the interaction of reflexivity and age diversity to role

ambiguity ( $\gamma = 5.859$ ,  $SE = 2.338$ ,  $p < .05$ ), as well as the path from role ambiguity to salesperson performance ( $\gamma = -6.658$ ;  $SE = 3.039$ ,  $p < .05$ ) were both used as input for bootstrapping analyses (Efron & Tibshirani, 1986; MacKinnon et al., 2004; Selig & Preacher, 2008). Following recommendations, we used 20,000 repetitions, and used the percentile method to create a 95% interval of the indirect effect. Bootstrapping demonstrated that zero did indeed fall outside of the confidence interval of the hypothesized effect (95% CI: Lower limit = -95.41, Upper limit = -1.11). Thus, hypothesis 4 is supported by our data. As expected, the interaction of reflexivity and age diversity has a negative and significant effect on salesperson performance, which runs indirectly through role ambiguity ( $p < .05$ ).

#### 4.6 Discussion

Prior research on salesperson performance has mainly been exploring the effect of salesperson attributes (Churchill et al., 1985; Brown & Peterson, 1993; Vinchur et al., 1998). The present study is the first to expand the field's scope, through a cross-level investigation of the selling team as a novel analytic unit and source of variation for salesperson performance. Specifically, we demonstrate that selling team reflexivity has an indirect effect on salesperson performance via role ambiguity. In addition, we show that age diversity of the selling team moderates this effect. As such, we address an important issue for managers and scholars, as we demonstrate that the success of salespeople is partly determined by the selling team in which they are placed.

With regard to team selling, our study represents the first field-study of professional selling teams that explores a within-team behavioral process. In particular, we show that differences between selling teams in levels of reflexivity, relates to the objective performance of salespeople. Hence, we provide insights into an important issue that practitioners have been pointing out, but scholars have left relatively unaddressed. Indeed, Cespedes et al. (1989: 45) already observed that "salespeople repeatedly cited more communication as the one thing that could most improve teamwork" and recently, the enhancement of communication within sales teams as well as the revision of sales team structures have been identified as top priorities for sales-managers (Trailer & Dickie, 2006). Our results not only offer guidance for managers who aim to change sales team structures or increase the communication within sales teams, but also show that selling team structures (i.e., diversity) and communication (i.e., reflexivity) have an interactive effect on the role ambiguity in addition to the performance of salespeople.

Our finding that team reflexivity can, when teams are homogeneous on age, enhance the performance of salespeople is in line with the body of literature on salesperson learning, where Sujan et al. (1994: 45) claimed that "although it may be intuitive to recognize that enjoying work, welcoming challenges, and considering mistakes a part of the learning process (the learning salesperson) are important for effective selling, this is not what is emphasized in either sales management practice or theory". Much attention in selling research has been given to the notion of "working smarter". However, to our knowledge, no research has ever explored the notion of smarter working (i.e., reflexive) selling teams, over

and beyond the long-existing notion of smarter working salespeople. We contribute to the field by introducing the conception of working smarter in sales teams and encourage further empirical and theoretical work that investigates the notion of working smarter beyond the traditional analytic level of the salesperson (Weitz et al., 1986). In fact, we demonstrate that by working smart and learning collectively, selling teams can make individual salespeople perceive themselves more knowledgeable of their sales role.

The scholarly quest for insights on how managers can reduce salesperson role ambiguity is not new by itself. Singh (1993) investigated whether organizational factors can reduce salesperson role ambiguity, and demonstrated that leadership behavior (i.e., autonomy and feedback) and task-autonomy indeed have this effect. Our study moves beyond this perspective and demonstrates that not only leaders and job characteristics, but also selling teams can potentially alleviate role stress of salespeople. Thus, we introduce a new lever of influence for managers to reduce salesperson role ambiguity.

Conceivably, our most important finding is that selling teams can make salespeople less, but also more role ambiguous (i.e., experience stress) and, in consequence, can positively or negatively impact salesperson performance. The result of our study that a combination of high age diversity and reflexivity of selling teams is dysfunctional for salespeople, speaks against scholars in marketing who have especially highlighted potential positive effects of diversity in selling teams (Weitz & Bradford, 1999). Apparently, diversity in selling teams can also have negative effects. The finding that age diversity of selling teams can be both positive as well as negative for salesperson performance, is especially relevant given the increasingly aging workforce and the “demographic risks” of the present economy that also confront selling firms (Strack, Baier & Fahlander, 2008). Together with the result that the combined effect of reflexivity and age diversity on salesperson performance is mediated by role ambiguity, we make an important contribution to the fields of marketing and sales. However, the value of our contribution stretches outside these boundaries as well. First, it addresses the recent call of psychologists for research exploring variables that mediate, as well as moderate the direct diversity-productivity association (Van Knippenberg & Schippers, 2007). Second, our findings contribute to research on team diversity, as we build on the findings of Ely (2004), and demonstrate conditions under which diversity can be bad for performance, whereas most research on teams looks at conditions under which diversity enhances performance. Third, frameworks of team effectiveness in organizations have typically distinguished between three fundamental concepts: (a) “inputs” (the team’s members, team context and organizational context), (b) “outcomes” (such as team performance), and (c) “processes” that mediate the relationships between inputs and outcomes (e.g., McGrath, 1964; Ilgen, Hollenbeck, Johnson & Jundt, 2005). However, we demonstrate that the outcome of a selling team’s process of reflexivity is moderated by the team’s input, in terms of its age diversity. Thus, we make an important contribution to the team effectiveness literature in general by demonstrating that the effect of team inputs on outcomes can also be moderated by team processes (Mathieu, Maynard, Rapp & Gilson, 2008).

#### 4.6.1 Managerial Implications

*First*, for managers aiming to enhance salesperson performance, our findings imply that they should stimulate reflexivity in sales teams that are age-homogenous, because this will (indirectly) increase sales productivity. As we enter an economy where salespeople are encountering more and more ambiguous selling situations and need to partner with their customers to develop complex solutions (Weitz & Bradford, 1999), managers ought to actively motivate selling team reflexivity. One way to do this could be to develop compensation and benefits strategies of salespeople who work in selling teams that do not only reward performance of the individual but also of the selling team, such that cooperation and reflexivity in selling teams is stimulated (Cespedes et al., 1989). Another way to stimulate team reflexivity is through transformational leadership, a leadership style that recently has been demonstrated to advance team reflexivity (Schippers, Den Hartog, Koopman & Van Knippenberg, 2008). *Third*, sales managers could stimulate reflexivity through developing behavior-based sales force control systems (Anderson & Oliver, 1987) which monitor, control and direct reflexivity in selling teams. For instance, via organizing and evaluating the behavior of salespeople during supervisor-led intervention sessions (where salespeople comment on one another's strategies), or internal "presentations" within selling teams, where salespeople present cases where they failed to meet customer demands. Indeed, behavioral control systems have been shown to affect information transmission of salespeople to the selling firm (Cravens, Ingram, LaForge & Young, 1993). We advise managers to utilize these organizational systems to stimulate selling teams to collectively reflect on information. A fourth approach to advance selling team reflexivity could be to launch formal reflexivity training programs (e.g., Gurtner et al., 2007). Sujana, Weitz and Sujana (1988) suggested earlier that managers implement training programs for salespeople based on the knowledge structures of experienced and better performing salespeople. We add to this recommendation that managers should stimulate selling team reflexivity as a way of training on the job in teams with low age diversity. As Sharma, Levy and Kumar (2000: 66) point out: "encouraging salespeople to manage themselves forces them to examine the causes of their successes and failures, which, in turn, strengthens their knowledge structures".

*Second*, numerous sales managers in today's sales forces make diversity in the sales force a priority. However, our finding that reflexivity and age diversity, in combination, are dysfunctional for salespeople, implies that managers should be cautious of those (e.g., consultants, and/or academics) who tend to advocate only the potential benefits of diversity in selling teams. Thus, while sales scholars have recently informed managers of situations when intelligence is dysfunctional for salesperson performance (Verbeke et al., 2008), we add to this that, under the condition of high age diversity, the team's intelligence (i.e., reflexivity) can be dysfunctional for salesperson performance as well.

*Third*, we encourage the numerous sales managers in the present economy who have started to develop strategies to manage salespeople in teams (e.g., team training, team compensation, and collective evaluations), and agree that this is indeed important, in addition to the traditional strategies of sales managers to manage salespeople as individuals (e.g., individual selection criteria, training schemes and compensation plans). However, "in a team situation, it is not the individual's characteristics alone that

influence performance, but the collection of individual characteristics within the group” (Cron, Marshall, Singh, Spiro & Sujan, 2005: 133). Based on our finding that differences between sales teams predict salesperson performance, we advocate that managers also develop strategies to manage salespeople in context of the sales team they work in. For instance, in addition to individually penalizing or training ineffective salespeople, another way to increase salesperson performance might be to transfer them to another selling team that is either more reflexive, and/or less diverse. Hence, we advise managers to pay attention to the demographic structure of the selling team when managing individual salespeople. To achieve this, we recommend sales managers to strategically partner with HR, and develop reflexive selling teams that are a source of sustainable competitive advantage for the selling firm (Barney & Wright, 1998).

#### 4.6.2 Further research

There are at least four ways for additional research. *First*, while we evidently agree with the many calls that have been made in the field to perform research on team selling (e.g., Moon & Armstrong, 1994; Weitz & Bradford, 1999), future research should not focus solely on either the single analytic-level of the selling team, or the sole analytic-level of the salesperson. Instead, a broader, multilevel perspective may be more promising, because it takes into account the more complex reality of today’s world of selling in which salespeople do indeed cooperate with each other in selling *teams*, but seldom operate without *individual* targets and appraisal systems. Hence, the salesperson has to be explored in a multilevel context (Klein, Tosi, & Cannella, 1999). Whereas we explored a cross-level mediation model, future scholars might for instance explore cross-level interaction models to highlight the interplay between selling team and salesperson constructs in predicting salesperson performance. For instance, could salesperson goal orientations (i.e., learning or productivity) moderate the relation between team reflexivity and salesperson role perceptions (e.g. Sujan et al., 1994)?

*Second*, our sample size, in terms of salespeople, is limited. Certainly, future research with more salespeople could boost the confidence in our findings. Nevertheless, our sample incorporates a substantial amount of selling teams and, following recommendations of Jones et al. (2005), is taken from a large variety of firms from different industries. Thus, our findings are generalizable across multiple industries. In addition, our study did not explore a particular kind of selling-team: so called cross-functional selling teams (where salespeople collaborate with employees from non-sales departments, like marketing, legal or operations). However, studying the antecedents of cross-functional selling team effectiveness may be valuable. Also, the current study used a survey methodology to disclose team processes. Thus, our findings are based on reported behaviors. However, as salespeople in today’s economy are constantly using information and communication technology (ICT) for within-team communication, future research using different observational methodologies could potentially reveal actual team-dynamics inside sales teams more accurately. For instance via field studies, or field experiments, that analyze frequency and content of communication via e-mail, cell phones or web-based SFA systems.

*Third*, our finding that reflexivity can heighten role ambiguity for salespeople in teams with high age diversity raises the question of whether certain supervisory leadership styles could steer the process of

reflexivity in advantageous ways (e.g., to avoid representational gaps) in diverse teams. For instance, should leaders more actively control reflexive processes within selling teams high in age diversity such that the variety of knowledge, based on differences between ages can become a sales team's asset instead of a burden? Or would it be better to explicitly address the age diversity issue and possible concurrent representational gaps in order to decide on which topics to reflect, and which topics not to reflect? More generally, research on sales force leadership may consider to explore if, how, and when leaders should differentiate between leading individual salespeople, versus leading selling teams (i.e., team leadership).

*Fourth*, we hope that our finding that reflexivity (i.e., learning) in selling teams positively impacts salesperson performance, taken together with the rich stream of literature on learning and intelligence of salespeople (e.g., Verbeke et al., 2008), inspires future scholars to conceptualize and explore the role of intelligence in selling teams. For instance, could it be that smarter salespeople (i.e., with higher IQ) reflect more? Or, what is the effect of diversity of intelligence within selling teams on its level of reflexivity? We found dysfunctional effects for team reflexivity for salesperson performance under the condition of high age diversity. Future conceptual models investigating the processes that mediate the age diversity-sales productivity effects could explore the mechanics of this effect more thoroughly and, in the process, make our results more intelligible. Finally, Churchill et al. (1985) in their seminal meta-analysis, conclude that role stress and skill variables are the most predictive determinants of salesperson performance. While our study focused on the salesperson attribute of role ambiguity (a form of role stress), we advocate that future scholars explore salesperson's capabilities as mediators of team-level constructs and salesperson performance. Research could for example seek to address what selling teams should do to make their salespeople become better adaptive sellers (Spiro & Weitz, 1990; Franke & Park, 2006). An investigation of how selling teams (e.g., via team adaptiveness) can make salespeople behave more effectively (e.g., more adaptive) towards customers, would represent an important contribution to the field.

## APPENDIX F: SCALES AND ITEMS USED IN THE STUDY

### Team Reflexivity

1. We talk about different ways in which we can reach our sales objectives
2. We work out what we can learn from past activities
3. During task execution, we stop to assess whether the team is on the right track
4. We check whether our activities produced the expected sales results
5. In this sales team the results of actions are evaluated
6. If things don't work out as planned, we consider what we can do about it
7. After certain activities are completed, we evaluate matters

### Role Ambiguity

1. I feel certain about how much authority I have\*
2. I have clear, planned goals and objectives for my job\*
3. I know that I have divided my time properly\*
4. I know what my responsibilities are
5. I know exactly what is expected of me\*
6. I feel certain how I will be evaluated for a raise or promotion\*

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\* Items indicated with an asterisk (\*) are reverse-coded.

## 5. GENERAL DISCUSSION

This dissertation is about managing people in organizations towards performance. Although numerous research themes concerning the HR-performance relationship can be distinguished, the dissertation focuses on three particular areas: HR strategy, leadership, and teamwork. To be more specific, the chapters 2, 3, and 4 focused consecutively on how coherence in HR strategy (e.g., Delery & Doty, 1996), transformational leadership (e.g., Bass, 1985), and team-reflexivity (e.g., West, 1996), relate to performance. In what follows, we review the main findings, discuss overarching contributions, and identify directions for future research.

### 5.1 Main Findings

In Chapter 2, the focus was on the systems of attributes perspective of organizations. We conceptualized an HR strategy as a system of attributes, and proposed that coherence between these attributes would lead to synergic effects on organizational performance. We tested our hypotheses with a dataset of 1777 firms across 14 European countries. In support of our proposition, and controlling for country and industry, we show that an HRM configuration of calculative and participative HRM policies has positive synergic effects on business performance. In addition, the data disclose that a calculative HRM policy, which is focused on employees collectively, positively affects organizational performance.

The importance of internal alignment and coherence in HR strategy has long been debated (e.g. Delery & Doty, 1996), and has even been argued to be a fundamental research question that HR researchers have yet to answer (Rynes et al., 2007: 1001). Our study is one of the first to outline the theoretical underpinnings, and moreover demonstrate empirical evidence of complementarity effects among the attributes of HR strategy on organizational performance (with the Ichniowski et al., 1997 study as an early exception). Through addressing this debate theoretically (i.e., proposing the systems of attributes theory as a theoretical lens through which HR systems can be analyzed), as well as empirically, we contribute importantly to the field. In addition, our study shows that seemingly contrasting subsystems of HR practices can co-exist in a so called “HR policy” (Colbert, 2004). Finally, our finding that a calculative HR system only affects organizational performance when geared towards employees as a collective, suggests that it is important to take the analytical unit (i.e., individual or collective) on which HR systems are “targeted”, into account.

In Chapter 3, the focus was on transformational leadership. We proposed that transformational leadership behavior would affect goal orientations (i.e., learning and performance goal orientations), as well as adaptive behavior towards customers. In addition, we proposed that stronger goal orientations and adaptive selling behavior would predict performance. Using a sample of 563 sales employees across seven different organizations, we tested the hypothesized effects of five transformational leadership dimensions on salesperson goal orientations and adaptive selling behavior, in addition to the effects of goal orientations and adaptive selling behavior on objective job performance of salespeople. The data supported many of our hypotheses. Consistent with our predictions, we found that: inspirational communication and intellectual

stimulation both encourage a learning goal orientation; inspirational communication stimulates a performance goal orientation; inspirational communication motivates adaptive selling behaviour, and performance goal orientations as well as adaptive behavior positively impacts salesperson performance. Nevertheless, besides these results, several unexpected findings emerged from our investigation: personal recognition lessens a learning goal orientation; articulating a vision lessens a performance goal orientation; intellectual stimulation, as well as personal recognition reduces adaptive selling behavior, and a learning goal orientation is dysfunctional for job performance.

Within the literature on job performance of salespeople, the relevance of goal orientations i.e., learning and performance orientations and adaptive behavior is well established (e.g., Sujan, et al., 1994; Franke & Park, 2006). However, what leaders of salespeople can do to encourage and stimulate goal orientations and adaptive selling has received very little attention. This is startling in view of the fact that numerous scholars have been suggesting that transformational leaders may possibly be able to influence goal orientations (e.g., Kohli et al., 1998; Mackenzie et al., 2001). Our finding that transformational leadership is related to goal orientations as well as to adaptive selling behavior does not only represent a novel finding to the field empirically, but also contributes theoretically, as it advances our understanding of the antecedents of goal orientations and adaptivity of people in organizations.

In Chapter 4, the focus was on team reflexivity. We conceptualized the team wherein a salesperson is nested, as an informational source for the salesperson to reduce ambiguity about his/her role. Subsequently, we proposed that team reflexivity can impact the job performance of individual salespeople through reducing role ambiguity. In addition, we hypothesized this cross-level effect to be conditional on the level of age diversity of teams. Under the boundary condition of high age diversity, we predicted that team reflexivity would increase individual-level role ambiguity, and thus be dysfunctional for job performance of salespeople. To test our propositions, we investigated a sample of 131 salespeople, nested in 33 teams. In support of our hypotheses, we found that team reflexivity decreases role ambiguity and enhances job performance of salespeople in age-homogeneous teams. Conversely, we demonstrated that reflexivity becomes dysfunctional as it makes salespeople more role ambiguous and less successful in selling teams high on age diversity.

Research on job performance of salespeople has arrived at a point where the importance and dysfunctionality of role ambiguity is commonly accepted (e.g., Brown & Peterson, 1993). Our study advances the literature by showing that the role ambiguity of a salesperson can be reduced through selling team reflexivity (West, 1996). We show that being a member of a reflexive, but age-homogenous selling team will make the salesperson more productive in achieving objective job targets. In addition, it is shown that a selling team's age diversity indeed moderates the impact of reflexivity on salesperson performance. Thus on the highest level of abstraction, our study shows that the job performance of individual people may be supported, but also be hurt, by being a member of in certain teams. As one of the first studies to demonstrate this, our study offers an important contribution to the field. Additionally, this study adds to our understanding of the role of diversity by demonstrating negative (in addition to positive) effects of age diversity on job performance of salespeople, in interaction with reflexivity. Hence, contrary to authors who

have traditionally argued in favor of diversity in selling teams (e.g., Weitz & Bradford, 1999), our study sheds new light on this issue by demonstrating that diversity can also have negative effects.

## 5.2 Theoretical and Practical Implications

Over and above the foregoing discussion of the findings of this dissertation's chapters independently, three distinctive and general contributions are identified and will now be outlined.

*Work groups.* This dissertation emphasizes the important role of work groups in the management of people towards performance. We advance the field's understanding of employees working in teams in two ways. First, our investigation of HR systems (Chapter 2) shows that a Calculative HR system which appeals to employees in a collective sense (i.e., employee share options, profit sharing and group bonuses) is positively related to performance, whereas a Calculative HR system which appeals to individual employees does not. Second, the study of selling teams (Chapter 4) showed that team processes (i.e., reflexivity) do not only impact a team's collective performance, but also that there is an effect of these processes on the job performance of individuals. Together, these insights offer important new theoretical understanding about the importance of work groups as an analytical level for scholars. These insights may be important in practice because it offers managers novel ways of understanding work groups: as informational sources for individual workers, and/or as the target for intervention by managers.

*Adaptiveness.* The present research provides evidence of the importance of adaptivity in order to enhance performance. Both adapting a sales strategy to changing conditions (i.e., adaptive selling) as an individual (Chapter 3), as well as discussing how to adjust a strategy to changing circumstances (i.e., reflexivity) within a team (Chapter 4) proved to have positive effects on performance. The findings imply that managers should stimulate adaptiveness of people in organizations. The system of attributes theory, which argues for coherence between attribute-values (Chapter 2), provides a helpful lens to consider this notion. As adaptation implies change of one or more attributes, it alerts managers to remain attentive for the loss of synergy effects when adaptation of a certain attribute would lead to transition of an organization from a coherent system of attributes towards an incoherent one. This pattern of results is in line with contemporary literature that suggests the importance of both individual task adaptivity, as well as team member adaptivity, for work role performance (Griffin et al., 2007), but adds to our understanding in two ways: (a) the origins of adaptivity: apparently, leaders can positively affect adaptive behavior, and (b) the "who" of adaptivity: adaptive behavior of teams is an important process that can help employees make sense of their work demands.

*Context.* As Churchill et al. (1985: 117) argue in their meta-analysis of determinants of salesperson performance: "whom one recruits is important, but probably not as important as *what one does* with the recruits after they have been hired". Thus, Churchill et al. (1985) suggested that researchers should investigate how "influenceable" determinants of job performance could be influenced by important factors that form the contextual environment of people in organizations. The present dissertation addresses this call, and indeed demonstrates how leaders can influence goal orientations and adaptiveness (Chapter 3), as well as how teams can influence role ambiguity (Chapter 4). We add to the literature by showing "what

leaders and co-workers do” with salespeople after they have been hired, has an impact on performance. We add to this the theoretical insight that the various attributes that represent how the organization’s HR system manages people after they’ve been hired (e.g., training, compensations & benefits, performance evaluation), is more effective when there is coherence internally (Chapter 2), or in other words: are in “horizontal fit” with one another (Delery & Doty, 1996). This is important knowledge for practice, because it shows how managers can enhance performance through managing the organizational environment of employees.

### **5.3 Strengths, Limitations and Future Research**

The three studies in this dissertation are connected by their focus on the management of performance through people. Like any research, also the present work has its boundaries. We now delineate four areas where these boundaries offer opportunities to advance the present research.

*Macro-micro integration.* In this dissertation we have focused on macro (Chapter 2), as well as on micro HR research (Chapters 3 & 4). However, we did not perform studies that integrate both types of research in one conceptual design. Studies that integrate both lines of research may be highly appealing for those interested in further understanding the HR-performance link. Indeed, scholars in strategic management point out the importance of integrating organization theory and organizational behavior, in order to study sustained competitive advantage (Barney, 1991: 116). Indeed, HR researchers have also called for multilevel research that incorporates both macro and micro levels (e.g., Wright & Boswell, 2002). More recently, management researchers have argued to narrow the macro-micro gap, for example via exploring how macro variables could moderate relationships on the micro level (Hitt, Beamish, Jackson & Mathieu, 2007; Bamberger, 2008). Such investigations would yield key insights about the effects of macro-level contexts on micro-level relations (Johns, 2006). Hence, this is an interesting area for future researchers to endeavor. Applying this integrated perspective to the studies in this dissertation could for instance bring about a cross-level investigation of how a firm’s strategic HR policies (i.e., calculative and/or participative) may function as contextual contingencies that attenuate or amplify the effects of transformational leadership on employee’s learning goal orientations. Such a study would advance the field theoretically, because it would shift our thinking of leadership behavior from “enacting” HR strategies (Den Hartog, et al., 2004: 563), towards “interacting” with HR strategy. Practically, such research may yield insights for how HR directors (who set organizational policies) can improve their partnering with line managers (who influence behavior of individuals and teams) in order to enhance performance, which has been identified as a key research need of the field (Roehling, Boswell, Caligiuri, Feldman, Graham, Guthrie, Morishima & Tansky, 2005).

*Cross-sectional design.* The studies in this dissertation have all been designed as cross-sectional investigations (Bryman & Bell, 2007: 55-60). Hence, our investigations have all been executed at a single point in time. This limits the research in this dissertation in two ways. First, while our studies reveal strong relationships between HR phenomena and performance, future investigations using longitudinal or experimental designs would boost the confidence in the causal inferences that we can make from our

results, as well as the internal validity of our results. An experimental study could for instance entail a leadership training manipulation such that leaders can make salespeople more adaptive (e.g., Dvir, Eden, Avolio & Shamir, 2002). On the other hand, a longitudinal study would enable the development of insights about how a trend towards coherence of an HR system, leads to enhanced performance over time (e.g., Schweiger & Denisi, 1991). Second, we have made an active effort to secure external validity in this dissertation by performing all studies across multiple industries, as well as across several firms. However, the contextual and internal environment of organizations as well as corporate and HR strategies are constantly changing, which may harm the predictive validity of HR phenomena that we claim to affect performance. For example, important contextual contingencies such as technological developments like automation of job tasks, workforce trends such as labor market dynamics, or changing worker values like the importance of work in people's lives (Lepak & Shaw, 2008). Future research across these contexts could further substantiate the validity of our results.

*Performance.* The goal of this dissertation was to explore relationships between HR phenomena and performance. However, while our operationalizations of performance are in line with what is commonplace in management research, we recognize that our definition of performance was limited. First, our definition of job performance of salespeople (Chapters 3 & 4) takes the traditional, "transactional" approach to the job performance of salespeople. Second, our definition of business performance does not enclose a very important goal of HR strategy, and of strategic management in general: sustained competitive advantage (Barney, 1991). Indeed, achieving transactional targets (i.e., sales volumes) is a basic priority for management. However, several scholars recently proposed another important dimension of job performance of salespeople: relational selling performance (e.g., Hunter & Perreault, 2007; Crosby, Evans & Cowles, 1990). From the perspective of relational selling, salespeople are no longer in a transactional role, but in a "partnering" role (Weitz & Bradford, 1999) and consequently, customer-based measures of salesperson performance such as satisfaction and trust of customers ought to be used to indicate job performance. Hence, future research exploring adaptive selling and goal orientations of individuals, and reflexivity of teams relates differently to relational selling performance than to transactional job performance, would truly complement the current results of this dissertation. For instance, could it be that a learning goal orientation, or reflexivity in age heterogeneous teams (which we both found to relate negatively with job performance), will have a positive relationship with relational job performance (e.g., because customers are more trustful of salespeople who are continuously learning)? Whereas achieving business performance is important, authors in strategic management argue that it is even more important to develop sustainable competitive advantage at the macro level (Barney, 1991; Hatch & Dyer, 2004). Researchers could for example gauge sustainable competitive advantage by measuring the long-term difference between the returns of an organization, and the industry-average.

*HR & Marketing.* Two studies in this dissertation have focused on the job performance of salespeople (Chapters 3 & 4). Whereas job performance is evidently one of the most important HR parameters in the field, salesperson performance has typically been characterized as a Marketing topic. Hence, this dissertation is interdisciplinary as it spans the management domains of HR and Marketing. The fields of

HR and Marketing have traditionally been seen as separate areas of management. For example, according to Porter (1985), HR is a so called “supportive” activity, whereas Marketing is a “primary” activity. The present dissertation takes an interdisciplinary approach and integrates both fields. Indeed, this dissertation has shown that managers can achieve marketing goals (i.e., sales) via HR practices (i.e., leadership and teamwork). We call upon future researchers to investigate how effective HR management may aid in achieving other marketing objectives as well. For instance, what is the effect of selecting, compensating, or training market-orientation competences for a firm’s market-orientation? Or, How can HR practices like selection, and/or compensations and benefits help a firm to acquire brand equity? While consultants have been publishing popular management books (e.g., titled “*HRMarketing*”) signifying the similarities, and indicating the added value of integrating both fields in order to tackle management problems, academics have not yet.

We observe two important similarities and one key difference between these both fields that may inspire such future research efforts. First, in HR as well as in Marketing, there is a clear distinction between the functional discipline, or “function” and the actual persons who are responsible to manage this field. For example, in Marketing, a widely known term is the “marketing concept”, which stands for the notion that customer-driven principles should be driving the behavior of all members of the organization (Felton, 1959). In HR, a renowned expression is the “HR function”, which denotes all those individuals inside organizations who carry responsibility for HR practices (Ulrich, Younger & Brockbank, 2008). Second, the management of the functional discipline does not overlap exactly with the responsible functional manager, meaning that HR management is done by many more managers than the HR manager, and similarly, Marketing Management is not the sole task of the Marketing Manager. Second, in modern-day organizations, there are important developments in both fields that are in opposite directions. Whereas the strategic role of the Marketing function is getting less and less important (Verhoef & Leeflang, 2009), the impact that HR has on business results becomes more and more relevant, and as a consequence, the HR function is getting more and more powerful inside organizations (Lawler & Mohrman, 2001; Roehling, et al., 2005).

#### **5.4 Concluding Remark**

The goal of this dissertation was to enhance the field’s knowledge and understanding of the HR-performance relationship, on the macro as well as on the micro level. With regard to the macro level, the findings revealed that internal coherence of HR strategy has a positive effect on organizational performance. With regard to the micro level, the results showed that both a leader’s level of transformational leadership as well as a team’s level of reflexivity can be functional, but also dysfunctional for job performance. I hope that these insights will offer guidance to scholars exploring the dynamic HR-performance relationship, as well as to practitioners who are responsible for managing (sales)people towards performance.

## References

- Ahearne, M., Mathieu, J., & Rapp, A. (2005). To empower or not to empower your sales force? An empirical examination of influence of leadership empowerment behavior on customer satisfaction and performance. *Journal of Applied Psychology*, 90(5), 945-955.
- Ahmad, S., & Schroeder, R.G. (2003) The impact of human resource management practices on operational performance: recognizing country and industry differences. *Journal of Operations Management*, 21(1), 19-43.
- Aiken, L. S., & West, S. G. (1991). *Multiple Regression: Testing and interpreting interactions*. Newbury Park, CA: Sage.
- Alchian, A. A., & Demsetz, H. (1972). Production , Information Costs, and Economic Organization. *American Economic Review*, 62, 777-795.
- Allison, P. D. (1978). Measures of inequality. *American Sociological Review*, 43, 865-880.
- Amit R. & Shoemaker J.H. (1993), 'Strategic assets and organizational rents', *Strategic Management Journal*, 14, 33-46.
- Anand, V., Manz, C. C., & Glick, W. H. (1998). An organizational memory approach to information management. *Academy of Management Review*, 23 (4), 796-809.
- Ancona, D., & Caldwell, D. (1992). Demography and design: Predictors of new product team performance. *Organizational Sciences*, 3, 321-341.
- Anderson, E., & Oliver, A. (1987). Perspectives on behavior-based versus outcome-based sales force control systems. *Journal of Marketing*, 51, 76-88.
- Arthur, J. B. (1994). Effects of human resource systems on manufacturing performance and turnover. *Academy of Management Journal*, 37(3), 670-687.
- Bagozzi, R. P. (1978). Salesforce performance and satisfaction as a function of individual difference, interpersonal, and situational factors. *Journal of Marketing Research*, 15(4), 517-531.
- Bamberger, P. (2008). Beyond contextualization: using context theories to narrow the micro-macro gap in management research. *Academy of Management Journal*, 51(5), 839-846.
- Barbuto, J. E. (1997). Taking the charisma out of transformational leadership. *Journal of Social Behavior and Personality*, 12, 689-697.
- Banker, R. D., Field, J. M., Schroeder, R. G., & Sinha, K. K. (1996). Impact of work teams on manufacturing performance: A longitudinal field study. *Academy of Management Journal*, 39, 867-890.
- Barney, J. B. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, 17(1), 99-120.
- Barney, J. B. (1995). Looking inside for competitive advantage. *Academy of Management Executive*, 9(4), 49-61.
- Barney, J. B., & Wright, P. M. (1998). On becoming a strategic partner: The role of human resources in gaining competitive advantage. *Human Resource Management*, 37(1), 31-46.

- Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51, 1173–1182.
- Barrick, M. R., Stewart, G. L., & Piotrowski, M. (2002). Personality and job performance: Test of the mediating effects of motivation among sales representatives. *Journal of Applied Psychology*, 87, 43-51.
- Bass, B. M. (1985). *Leadership and performance beyond expectations*. New York: Free Press.
- Bass, B. M. (1990). *Bass and Stogdill's handbook of leadership*. New York: Free Press.
- Bass, B. M. (1998). *Transformational leadership: Industrial, military and educational impact*. Mahwah, NJ: Lawrence Erlbaum Associates Inc.
- Bass, B. M. (1999). Two decades of research and development in transformational leadership. *European Journal of Work and Organizational Psychology*, 8, 9-26.
- Bass, B. M., Avolio, B. J., Jung, D. I., & Berson, Y. (2003) Predicting unit performance by assessing transformational and transactional leadership. *Journal of Applied Psychology*, 88(2), 207–218
- Bauer, D. J., Preacher, K. J., & Gil, K. M. (2006). Conceptualizing and testing random indirect effects and moderated mediation in multilevel models: New procedures and recommendations. *Psychological Methods*, 11, 142-163.
- Becker, T. E., Billings, R. S., Eveleth, D. M., & Gilbert, N. L. (1996). Foci and bases of employee commitment: implications for job performance. *Academy of Management Journal*, 39(2), 464-482.
- Becker, B., & Gerhart, B. (1996). The impact of human resource management on organizational performance: progress and prospects. *Academy of Management Journal*, 39(4), 779-801.
- Becker, B. E., Huselid, M. A., Pickus, P. S., & Spratt, M. F. (1997). HR as a source of shareholder value: research and recommendations. *Human Resource Management*, 36(1), 39-47.
- Becker, B. E., & Huselid, M. A. (1998). High performance work systems and business performance: a synthesis of research and managerial implications. In G. R. Ferris (Ed.), *Research in Personnel and Human Resources Management* (pp. 53-101). Amsterdam: JAI.
- Behrman, D. N., & Perreault, W. D. (1982). Measuring the productivity of industrial salespersons. *Journal of Business Research*, 10(3), 355-370.
- Behrman, D. N., & Perreault, W. D. (1984). A role stress model of the performance and satisfaction of industrial salespersons. *Journal of Marketing*, 48(Fall), 9-21.
- Ben-Ner, A., & Jones, D. C. (1995). Employee participation, ownership, and productivity: a theoretical framework. *Industrial Relations*, 34(4), 532-554.
- Bentler, P., & Bonett, D. (1980). Significance tests and goodness of fit analysis in covariance structures. *Psychological Bulletin*, 88, 588-606.
- Bettencourt, L. A. (2004). Change-oriented organizational citizenship behaviors: The direct and moderating influence of goal orientation. *Journal of Retailing*, 80, 165-180.
- Bliese, P. D. (2000). Within-group agreement, non-independence, and reliability: Implications for data aggregation and analysis. In K. J. Klein & S. W. J. Kozlowski (Eds.), *Multilevel theory, research and methods in organizations: Foundations, extensions and new directions* (pp. 349-381). San Francisco: Jossey-Bass.

- Bowen, D.E., & Ostroff, C. (2004). Understanding HRM-business performance linkages: the role of the "strength" of the HRM system. *Academy of Management Review*, 29(2), 203-221.
- Brewster, C., Mayrhofer, W. & Morley, M., (eds) (2004). *Human resource management in europe: evidence of convergence?* Butterworth Heinemann, London.
- Brodbeck, F. C., Kerschreiter, R., Mojzisch, A., & Schulz-Hardt, S. (2007). Group decision making under conditions of distributed knowledge: The information asymmetries model. *The Academy of Management Review*, 32(2), 459-479.
- Brown, S. P., & Leigh, T. W. (1996). A new look at psychological climate and its relationship to job involvement, effort, and performance. *Journal of Applied Psychology*, 81, 358-368.
- Brown, S. P., & Peterson, R. A. (1993). Antecedents and consequences of salesperson job satisfaction. *Journal of Marketing Research*, 30(February), 63-78.
- Bryk, A. S., & Raudenbush, S. W. (1992). *Hierarchical linear models: Applications and data analysis methods*. Newbury Park: Sage.
- Bryman, A., & Bell, E. (2007). *Business research Methods*. New York: Oxford University Press.
- Brynjolfsson, E., & Hitt, L. M. (2000). Beyond computation: Information technology, organizational transformation and business performance. *Journal of Economic Perspectives*, 14(4), 23-48.
- Burke, C., Stagl, K., Klein, C., Goodwin, G., Salas, E., & Halpin, S. (2006). What type of leadership behavior is functional in teams? A meta-analysis. *The Leadership Quarterly*, 17, 288-307.
- Burns, J. M. (1978). Transactional and transformational leadership. In J. T. Wren (Ed.), *The leader's companion: Insights on leadership through the ages* (pp. 100-101). New York: Free Press.
- Bono, J. E., & Judge, T. A. (2003). Self-concordance at work: Toward understanding the motivational effects of transformational leaders. *Academy of Management journal*, 46(5), 554-571.
- Bono, J. E., & Judge, T. A. (2004). Personality and transformational and transactional leadership: A meta-analysis. *Journal of Applied Psychology*, 89, 901-910.
- Cespedes, F. V., Doyle, S. X., & Freedman, R. J. (1989). Teamwork for today's selling. *Harvard Business Review*, 67(2), 44-58.
- Chebat, J., & Kollias, P. (2000). The impact of empowerment on customer contact employees' roles in service organizations. *Journal of Service Research*, 3, 66-81.
- Churchill, Jr. G. A., Ford, N. M., Hartley, S. W., & Walker, Jr. O. C. (1985). The determinants of salesperson performance: A meta-analysis. *Journal of Marketing Research*, 22(May), 103-118.
- Coad, A. F., & Berry, A. J. (1998). Transformational leadership and learning orientation. *Leadership and Organizational Development Journal*, 19(3), 164-172.
- Colbert, B. A. (2004). The complex resource-based view: implications for theory and practice in strategic human resource management. *Academy of Management Review*, 29(3), 341-358.
- Colletti, J., & Fiss, M. (2006). The ultimately accountable job: Leading today's sales organization. *Harvard Business Review*, 84(7/8), 125-131.
- Conger, J. A., & Kanungo, R. (1988). The empowerment process: Integrating theory and practice. *Academy of Management Review*, 13, 471-482.

- Conte, M. & Svejnar, J. (1990). The effects of worker participation in management, profits, and ownership of assets on enterprise performance. In K. Abraham & R. McKersie (Eds.), *New developments in the labor market*. (pp. 59-84) Cambridge, MA: MIT.
- Cote, S., & Miners, C. T. H. (2006). Emotional intelligence, cognitive intelligence, and job performance. *Administrative Science Quarterly*, 51(1), 1-28.
- Cotton, J.L. (1988) "Employee Participation, Diverse Forms and Different Outcomes" *Academy of Management Review*, 13(1), 8-22.
- Cox, T, Lobel, S., & McLeod, P. L. (1991). Effects of ethnic group cultural differences on cooperative and competitive behaviour on a group task. *Academy of Management Journal*, 34, 827-47.
- Cravens, D.W., Ingram, T.N., LaForge, R.W. & Young, C.E. (1993). Behavior-based and outcome-based salesforce control systems. *Journal of Marketing*, 57, 47-59.
- Cron, W. L. (1984). Industrial salesperson development: A career stages perspective. *Journal of Marketing*, 48(Fall), 41-52.
- Cron, W.L., Marshall, G.W., Singh, J., Spiro, R.L., & Sujan, H. (2005,). Salesperson Selection, Training and Development" Trends, Implications, and Research Opportunities. *Journal of Personal Selling and Sales Management*, 25(2), 123-136.
- Cronin, M. A., & Weingart, L. R. (2007). Representational gaps, information processing, and conflict in functionally diverse teams. *Academy of Management Review*, 32, 761-773.
- Crosby, L. A., Evans, K. A., & Cowles, D. (1990). Relationship quality in services selling: An interpersonal influence perspective. *Journal of Marketing*, 54(3), 68.
- Den Hartog, D. N., Boselie, P., Paauwe, J. (2004). Performance management: A model and research agenda. *Applied Psychology – An International Review*, 53(4), 556-569.
- Delaney, J. T., & Huselid, M. A. (1996). The impact of human resource management practices on perceptions of organizational performance. *Academy of Management Journal*, 39(4), 949-969.
- Delery, J.E. (1998). Issues of Fit in strategic human resource management: Implications for research. *Human Resource Management Review*, 8(3), 289-310.
- Delery, J. E., & Doty, D. H. (1996). Modes of theorizing in strategic human resource management: tests of universalistic, contingency and configurational performance predictions. *Academy of Management Journal*, 39(4), 802-835.
- De Luca, L. M., & Atuahene-Gima, K. (2007). Market knowledge dimensions and cross-functional collaboration: Examining the different routes to product innovation performance. *Journal of Marketing*, 71(January), 95-112.
- DeShon, R. P., & Gillespie, J. Z. (2005). A motivated action theory account of goal orientation. *Journal of Applied Psychology*, 90(6), 1096-1127.
- Dietz, B., P. Ligthart, & E. Poutsma (2007). The Performance Effects of High Performance Works Systems: Evidence from a European Survey. Presented at *Annual Meeting of the Academy of Management 2007*, Philadelphia: USA.
- Dietz, B., Schippers, M., & Giardini, A (2008). Reflexive Selling Teams. Presented at *Annual Meeting of the Academy of Management 2008*, Anaheim: USA.

- Doty, D. H., Glick, W. H., & Huber, G. P. (1993). Fit, equifinality, and organizational effectiveness: a test of two configurational theories. *Academy of Management Journal*, 36(6), 1196-1250.
- Dubinsky, A. J., & Skinner, S. J. (2002). Going the extra mile – Antecedents of salespeople’s discretionary effort. *Industrial Marketing Management*, 31(7), 589-598.
- Dubinsky, A. J., Yammarino, F. J., & Jolson, M. A. (1994). Closeness of supervision and salesperson work outcomes: An alternate perspective. *Journal of Business Research*, March, 225-237.
- Dubinsky, A. J., Yammarino, F. J., Jolson, M. A., & Spangler, W. D. (1995). Transformational leadership: An initial investigation in sales management. *Journal of Personal Selling and Sales Management*, 15(Spring), 17-29.
- Dvir, T., Eden, D., Avolio, B. J., & Shamir, B. (2002). Impact of transformational leadership on follower development and performance: a field experiment. *Academy of Management Journal*, 45(4), 735-744.
- Efron, B., & Tibshirani, R. (1986). Bootstrap methods for standard errors, confidence intervals, and other measures of statistical accuracy (with discussion). *Statistical Science*, 1, 54-75.
- Eisenbeiss, S.A., Boerner, S., & Knippenberg, D. van (2008). Transformational leadership and team innovation: Integrating team climate principles. *Journal of Applied Psychology*, in press.
- Eisenhardt, K. M. (1989). Agency theory: an assessment and review. *Academy of Management Review*, 14(1), 57-74.
- Ely, R. J. (2004). A field study of group diversity, participation in diversity education programs, and productivity. *Journal of Organizational Behavior*, 25(6), 755-780.
- Evans, W.R., & Davis, W.D. (2005). High-Performance Work Systems and Organizational Performance : The Mediating Role of Internal Social Structure. *Journal of management*, 31(5), 758-775.
- Felton, A. P. (1959). Making the marketing concept work. *Harvard Business Review*, 37, 55-65.
- Fleetwood, S., & Hesketh, A. (2006). HRM-performance research: under-theorized and lacking explanatory power. *International Journal of Human Resource Management*, 17(12), 1977-1993.
- Franke, G. R., Behrman, D. N., & Perrault, W. D. (1982). Salesforce performance and satisfaction: Contemporaneous relationships and selected antecedents. In B. J. Walker, W. O. Bearden, D. R. Darden, P. E. Murphy, J. R. Nevin, J. C. Olsen, & B. A. Weitz (Eds), *An Assessment of Marketing Thought and Practice*. (pp. 233-7) American Marketing Association Proceedings Series.
- Franke, G. R., & Park, J. E. (2006). Salesperson adaptive selling and customer orientation: A meta-analysis. *Journal of Marketing Research*, 43(Nov), 693-702.
- Garson, D. G. (2002). *Guide to writing empirical papers*. Portland: Annotation Book News Inc.
- Gersick, C. J., & Hackman, J. R. (1990). Habitual routines in task-performing groups. *Organizational Behavior and Human Decision Processes*, 47, 65-97.
- Giessner, S. & Knippenberg, D. van (2008). “License to Fail”: Goal definition, leader group prototypicality, and perceptions of leadership effectiveness after leader failure. *Organizational Behavior and Human Decision Processes*, 105, 14-35.
- Godard, J. (2004). A critical assessment of the high-performance paradigm. *British Journal of Industrial Relations*, 42(2), 349-378.

- Gooderham, P. N., Nordhaug, O., & Ringdal, K. (1999). Institutional and rational determinants of organizational practices: human resource management in European firms. *Administrative Science Quarterly*, 44(3), 507-531.
- Goodwin, V. L., Wofford, J. C., & Whittington, J. L. (2001). A theoretical analysis of and empirical extension to the transformational leadership construct. *Journal of Organizational Behavior*, 22, 759-774.
- Gresov, C., & Drazin, R. (1997). "Equifinality: functional equivalence in organization design." *Academy of Management Review*, 22(2), 403-428.
- Griffin, M. A., Neal, A., & Parker, S. K. (2007). A new model of work role performance: Positive behavior in uncertain and interdependent contexts. *Academy of Management Journal*, 50(2), 327-347.
- Guest, D. E. (1997). Human resource management and performance: a review and research agenda. *International Journal of Human Resource Management*, 8(3), 263-276.
- Gurtner, A., Tschan, F., Semmer, N. K., & Nägele, C. (2007). Getting groups to develop good strategies: Effects of reflexivity interventions on team process, team performance, and shared mental models. *Organizational Behavior and Human Decision Processes*, 102, 127-142.
- Guzzo, R. A., & Dickson, M. W. (1996). Teams in organizations: Recent research on performance and effectiveness. *Annual Review of Psychology*, 47, 307-338.
- Hackman, J. R. (1987). The design of workteams. In J. W. Lorsch (Ed.), *Handbook of organizational behavior* (pp. 315-342). Englewood Cliffs, NJ: Prentice-Hall.
- Hair, J., Anderson, R., Tatham, R. and Black, W. (1998), *Multivariate Data Analysis*. London: Prentice Hall.
- Harris, E. G., Mowen, J. C., & Brown, T. J. (2005). Re-examining salesperson goal orientations: Personality influencers, customer orientation and work satisfaction.' *Journal of the Academy of Marketing Science*, 33(1), 19-35.
- Hatch, N. W., & Dyer, J. H. (2004). Human capital and learning as a source of sustainable competitive advantage. *Strategic Management Journal*, 25(12), 1155-1178.
- Harrison, D. A., & Klein, K. J. (2007). What's the difference? Diversity constructs as separation, variety, or disparity in organizations. *Academy of Management Review*, 32(4), 1199-1228.
- Hitt, M. A., Beamish, P. W., Jackson, S. E., & Mathieu, J. E. (1997). Building theoretical and empirical bridges across levels: Multilevel research in management. *Academy of Management Journal*, 50(6), 1385-1399.
- Hoffman, L. R., & Maier, N. R. (1961). Quality and acceptance of problem solutions by members of homogeneous and heterogeneous groups. *Journal of Abnormal and Social Psychology*, 62, 401-407.
- Hofmann, D. A. (1997). An overview of the logic and rationale of hierarchical linear models. *Journal of Management*, 23, 723-744.
- Hofmann, D. A., & Gavin, M. B. (1998). Centering decisions in hierarchical linear models: Implications for research in organizations. *Journal of Management*, 24(5), 623-641.
- Holmstrom, B. & Milgrom, P. (1994). The firm as an incentive system. *American Economic Review*, 84(4), 972-991.
- House, R. J. (1996). Path-goal theory of leadership: Lessons, legacy, and a reformulated theory. *The Leadership Quarterly*, 7(3), 323-352.

- Hunter, G. K., & Perreault Jr., W. D. (2007). Making sales technology effective. *American Marketing Association*, 71(1), 16-34.
- Huselid, M. A. (1995). The impact of human-resource management practices on turnover, productivity, and corporate financial performance. *Academy of Management Journal*, 38(3), 635-672.
- Huselid, M. A., Jackson, S. E., & Schuler, R. S. (1997). Technical and strategic human resource management effectiveness as determinants of firm performance. *Academy of Management Journal*, 40(1), 171-188.
- Ichniowski, C., Shaw, K. & Prennushi, G. (1997). The Effects of Human Resource Management Practices on Productivity: A Study of Steel Finishing Lines. *American Economic Review*, 87(3), 291-313.
- Ichniowski, C., Shaw, K. (2003) "Beyond Incentive Pay: Insiders' Estimates of the Value of Complementary Human Resource Management Practices" *The Journal of Economic Perspectives: A Journal of the American Economic Association*, 17(1), 155-178.
- Ilgen, D. R., Hollenbeck, J.R., Johnson, M., & Jundt, D. (2005). Teams in organizations: From input-process-output models to IMOI models. *Annual Review of Psychology* 56, 517-543.
- Ingram, T. N., LaForge, R. W., & Leigh, T. W. (2002). Selling in the new millennium. A joint agenda. *Industrial Marketing Management*, 31, 559-567.
- Ingram, T. N., LaForge, R. W., Locander, W. B., MacKenzie, S. B., & Podsakoff, P. M. (2005). New directions in sales leadership. *Journal of Personal Selling and Sales Management*, 2(Spring), 137-154.
- Jackson, S. E. (1992). *Diversity in the workplace: Human resources initiatives*. New York: Guilford Press.
- Jackson, S. E., & Joshi, A. (2004). Diversity in social context: A multi-attribute, multi-level analysis of team diversity and performance in a sales organization. *Journal of Organizational Behavior*, 25, 675-702.
- Jackson, S. E., & Schuler, R. S. (1985). A meta-analysis and conceptual critique of research on role ambiguity and role conflict in work settings. *Organizational Behavior and Human Decision Processes*, 36(1): 16-78.
- James, L. R. (1982). Aggregation bias in estimates of perceptual agreement. *Journal of Applied Psychology*, 67, 219-229.
- James, L. R., Damaree, R. G., & Wolf, G. (1984). Estimating within-group interrater reliability with and without response bias. *Journal of Applied Psychology*, 69(1), 85-98.
- James, L. R., Demaree, R. G., & Wolf, G. (1993). rwg: An assessment of within-group interrater agreement. *Journal of Applied Psychology*, 78(2), 306-309.
- Jamrog, J. J., & Overholt, M. H. (2004). Building a strategic HR function: Continuing the evolution. *Human Resource Planning*, 27 (1), 51-62.
- Jaworski, B. J., & Kohli, A. K. (1991). Supervisory feedback: Alternative types and their impact on salespeople's performance and satisfaction. *Journal of Marketing Research*, 28(May), 190-201.
- Johns, G. (2006). The essential impact of context on organizational behaviour. *Academy of Management Review*, 31(2), 386-408.
- Johnston, M. W., & Marshall, G. (2006). *Churchill/Ford/Walker's sales force management*. New York: McGraw-Hill/Irwin.

- Jones, E., Brown, S. P., Zoltners, A. A., & Weitz, B. A. (2005). The changing environment of selling and sales management. *Journal of Personal Selling & Sales Management*, 25(2), 105-111.
- Jones, E., Dixon, A. L., Chonko, L. B., & Cannon, J. P. (2005). Key accounts and team selling: A review, framework, and research agenda. *Journal of Personal Selling & Sales Management*, 25(2), 182-198.
- Judge, T., & Piccollo, R. (2004). Transformational and transactional leadership: A meta-analytic test of their relative validity. *Journal of Applied Psychology*, 89(5), 755-768.
- Kaarsemaker, E. C. A., & Poutsma, E. (2006). The fit of employee ownership with other human resource management practices: Theoretical and empirical suggestions regarding the existence of an ownership high-performance work system, or theory o. *Economic and Industrial Democracy*, 27(2), 669-685.
- Kahn, R. L. (1973). Conflict, ambiguity and overload: Three elements in job stress. *Occupational Mental Health*, 3(1), 2-9.
- Kalmi P., Pendleton, A., & Poutsma, E. (2006). Financial participation and performance in Europe. *Human resource management journal*, 15(4), 54-67.
- Kandel, E., & Lazear, E. (1992). 'Peer pressure in partnerships', *Journal of Political Economy*, 100, 801-17.
- Kark, R., Shamir, B., & Chen, G. (2003). The two faces of transformational leadership: Empowerment and dependency. *Journal of Applied Psychology*, 88, 246-255.
- Kelman, H. C. (1958). Compliance, identification and internalization: The processes of opinion change. *Journal of Conflict Resolution*, 2, 50-60.
- Kenny, D. A., Kashy, D. A., & Bolger, N. (1998). Data analysis in social psychology. In D. T. Gilbert, S. T. Fiske, & G. Lindzey (Eds.), *The handbook of social psychology* (4th ed., pp. 233-265). New York: Oxford University Press.
- Kinnie, N. J., Swart, J., & Purcell, J. (2005). Influences on the choice of HR system : The network organization perspective. *International journal of human resource management*, 16(6), 1004-1028.
- Kintana, M. L., Alonso, A. A., & Olaverri, C.G. (2006). High-performance work systems and firms' operational performance : The moderating role of technology. *International Journal of Human Resource Management*, 17(1), 70-85.
- Klein, K. J., Tosi, H. & Cannella, A.A. Jr. (1999). Introduction to special topic forum: Multilevel theory building: Benefits, barriers, and new developments. *The Academy of Management Review*, 24(2), 243-48.
- Kohli, A. (1985). Some Unexplored Supervisory Behaviors and Their Influence on Salespeople's Role Clarity, Specific Self-Esteem, Job Satisfaction, and Motivation. *Journal of Marketing Research*, 22(4), 424-433.
- Kohli, A. J., Shervani, T. A., & Challagalla, G. N. (1998). Learning and performance orientation of salespeople: The role of supervisors. *Journal of Marketing Research*, 35(2), 263-274.
- Kohli, A. K., & Jaworski, B. J. (1994). The influence of coworker feedback on salespeople. *Journal of Marketing*, 58, 82-94.
- Kozlowski, S. W. J., & Bell, B. S. (2003). Work groups and teams in organizations. In W. C. Borman & D. R. Ilgen (Eds.), *Handbook of psychology: Industrial and organizational psychology* (Vol. 12, pp. 333-375). New York: Wiley.

- Krull, J. L., & MacKinnon, D. P. (2001). Multilevel modeling of individual and group level mediated effects. *Multivariate Behavioral Research*, 36, 249-277.
- Kruse D. (2002). Research evidence on the prevalence and effects of employee ownership. *Journal of Employee Ownership Law and Finance*, 14(4), 65-90.
- Kruse, D. & Blasi, J. (1995). *Employee ownership, employee attitudes, and business performance*. Cambridge, MA: National Bureau of Economic Research.
- Laursen, K., & Foss, N.J. (2003). New human resource management practices, complementarities and the impact on innovation performance. *Cambridge Journal of Economics*, 27(2), 243-264.
- Lawler, E E. (2005). From human resource management to organizational effectiveness. *Human Resource Management*, 44(2), 165-169.
- Lawler, E. E, Levenson, A., & Boudreau, J. W. (2004). HR Metrics and analytics: Use and impact. *Human Resource Planning*, 27(4), 27-36.
- Lawler, E. E., & Mohrman, S. A. (2003). HRM as a strategic partner: What does it take to make it happen? *Human Resource Planning*, 26, 15-29.
- Leigh, T. W., Bolman Pullins, E., & Comer, L. B. (2001). The top ten sales articles of the 20<sup>th</sup> century. *Journal of Personal Selling & Sales Management*, 21(3), 217-227.
- Leong, S. M., Busch, P. S., & Roedder J. D. (1989). Knowledge bases and salesperson effectiveness: A script-theoretic analysis. *Journal of Marketing Research*, XXVI(May), 164-178.
- Leong, S. M., Randall, D. M., & Cote, J. A. (1994). Exploring the organizational commitment-performance linkage in marketing: A study of life insurance salespeople. *Journal of Business Research*, 29, 57- 63.
- Lepak, D. P., & Shaw, J. D. (2008). Strategic HRM in North America: looking to the future. *International Journal of Human Resource Management*, 19(8), 1486-1499.
- LePine, J. A., Piccolo, R. F., Jackson, C. L., Mathieu, J. E., & Saul, J. R. (2008). A meta-analysis of teamwork processes: tests of a multidimensional model and relationships with team effectiveness criteria. *Personnel Psychology*, 61(2), 273-307.
- Liao, Y. S. (2005). Business strategy and performance: the role of human resource management control. *Personnel Review*, 34(3), 294-309.
- Liden, R. C., Wayne, S. J., Zhao, H., & Henderson, D. (2008). Servant leadership: development of a multidimensional measure and multi-level assessment. *The Leadership Quarterly*, 19(2), 161-177.
- Locke, K., & Golden-Biddle, K. (1997). Constructing opportunities for contribution: structuring intertextual coherence and “problematizing” in organizational studies. *Academy of Management Journal*, 40(5), 1023-1062.
- Lysonski, S. L., & Johnson, E. M. (1983). The sales manager as a boundary spanner: A role theory analysis. *Journal of Personal Selling and Sales Management*, 3(November), 8-21.
- Mackenzie, S. B., Podsakoff, P. M., & Rich, G. A. (2001). Transformational and transactional leadership and salesperson performance. *Academy of Marketing Science*, 29(2), 115-134.
- MacDuffie, J. P. (1995). Human resource bundles and manufacturing performance: organizational logic and flexible production systems in the world auto industry. *Industrial and Labor Relations Review*, 48, 197-221.

- Martin, C. A., & Bush, A. J. (2006). Psychological climate, empowerment, leadership style, and customer-oriented selling: An analysis of the sales manager-salesperson dyad. *Journal of the Academy of Marketing Science*, 34(3), 419-438.
- MacKinnon, D. P., Lockwood, C. M., Hoffman, J. M., West, S. G., & Sheets, V. (2002). A comparison of methods to test mediation and other intervening variable effects. *Psychological Methods*, 7, 83-104.
- MacKinnon, D. P., Lockwood, C. M., & Williams, J. (2004). Confidence limits for the indirect effect: Distribution of the product and resampling methods. *Multivariate Behavioral Research*, 39, 99-128.
- Malhotra, N. K., Peterson, M., & Kleiser, S. B. (1999). Marketing research: A state-of-the-art review and directions for the twenty-first century. *Journal of the Academy of Marketing Science*, 27(2), 160-183.
- Martín-Alcázar, F., Romero-Fernández, P.M., & Sánchez-Gardey, G. (2005) Strategic human resource management : Integrating the universalistic, contingent, configurational and contextual perspectives. *International Journal of Human Resource Management*, 16(5), 633-659.
- Mathieu, J., Maynard, M. T., Rapp T., & Gilson, L. (2008). Team effectiveness 1997-2007. A review of recent advancements and a glimpse into the future. *Journal of Management*, 34(3), 410-476.
- McClelland, D. C. (1975). *A competency model for human resource management specialists to be used in the delivery of the human resource management cycle*. Boston: McBer & Co.
- McFarland, R., Challagalla, G., & Shervani, T. (2006). Influence tactics for effective adaptive selling. *Journal of Marketing*, 70(4), 103-117.
- McGrath, J. E. (1964). *Social psychology: A brief introduction*. New York: Holt, Rinehart & Winston.
- Milgrom, P. A., & Roberts, J. (1988). Communication and inventory as substitutes in organizing production. *Scandinavian Journal of Economics*, 94, 154-179.
- Milgrom, P., & Roberts, J. (1990). The efficiency of equity in organizational decision processes. *American Economic Review*. 80(2), 154-159.
- Milgrom, P., & Roberts, J. (1992). *Economics, organization and management*. New Jersey: Prentice Hall.
- Milgrom, P., & Roberts, J. (1995). Complementarities and fit: Strategy, structure, and organizational change in manufacturing. *Journal of Accounting and Economics*, 19(2), 179-208.
- Milliken, F. J., & Martins, L. L. (1996). Searching for common threads: Understanding the multiple effects of diversity in organizational groups. *Academy of Management Review*, 21(2), 402-433.
- Mokken, R. J. (1971). *A Theory and Procedure of Scale Analysis*. The Hague: Mouton.
- Mokken, R. J., & Lewis, C. (1982). A Nonparametric Approach to the Analysis of Dichotomous Item Responses. *Applied Psychological Measurement*, 6, 417-30.
- Molenaar, I. W., & Sijtsma, K. (2000). *Manual for MSP, a Program for Mokken Scale Analysis for Polytomous Items Version 5.0*. Groningen: IEC ProGramma.
- Montoya-Weiss, M., Massey, A., & Song, M. (2001). Getting it together: Temporal coordination and conflict management in global virtual teams. *Academy of Management Journal*, 44(6), 1251-1262.
- Moon, M. A., & Armstrong, G. M. (1994). Selling teams: A conceptual framework and research agenda. *Journal of Personal Selling & Sales Management*, 14(1), 17-30.

- Moon, M. A., & Gupta, S. F. (1997). Examining the formation of selling centers: A conceptual framework. *Journal of Personal Selling & Sales Management*, 17(2), 31-41.
- Neter, J., & Wasserman, W., Kutner, M. H. (1990) *Applied linear statistical models (3rd ed.)*. New York: McGraw-Hill/Irwin.
- Noe, R. A., Hollenbeck, J. R., Gerhart, B., & Wright, P. M. (2007). *Fundamentals of Human Resource Management*, 2<sup>nd</sup> edition. New York: McGraw-Hill.
- Nunnally, J.C. (1978). *Psychometric theory*. 2<sup>nd</sup> edition, New York: McGraw-Hill.
- Oliver, R. L., & Anderson E. (1994). An empirical test of the consequences of behavior- and outcome-based sales control systems. *Journal of Marketing*, 58(October), 53-67.
- Ordiz-Fuertes, M., & Fernández-Sánchez, E. (2003). High-involvement practices in human resource management: concept and factors that motivate their adoption. *International Journal of Human Resource Management*, 14(4), 511-529.
- Oschrin, E. (1918). Vocational tests for retail saleswomen. *Journal of Applied Psychology*, 2, 148-155.
- Oyer, P. (2004). Why do firms use incentives that have no incentive effects? *Journal of Finance*, 59(4), 1619-1649.
- Pelled, L. H., Eisenhardt, K. M., & Xin, K. R. (1999). Exploring the black box: An analysis of work group diversity, conflict, and productivity. *Administrative Science Quarterly*, 44(1), 1.
- Peterson, S. J., & Luthans F. (2006). The impact of financial and nonfinancial incentives on business-unit outcomes over time. *Journal of Applied Psychology*, 91, 156-165.
- Pfeffer, J. (1994). *Competitive Advantage Through People. Unleashing the Power of the Workforce*. Boston: Harvard Business School Press.
- Pituch, K. A., & Stapleton, L. M. (2008). The performance of methods to test upper-level mediation in the presence of nonnormal data. *Multivariate Behavioral Research*, 43, 237-267.
- Poppo, L., & Zenger, T. (2002). Do formal contracts and relational governance function as substitutes or complements? *Strategic Management Journal*, 23(8), 707-725.
- Porath, C. L., & Bateman, T. S. (2006). Self-regulation: From goal orientation to job performance. *Journal of Applied Psychology*, 91(1), 185-192.
- Porter, M. E. (1985). *Competitive advantage: Creating and sustaining superior performance*. New York: The Free Press.
- Poutsma, E., Ligthart, P. H., & Veersma, U. (2006). The Diffusion of Calculative and Participative HRM Practices in European Firms. *Industrial Relations*, 45(2), 513-546
- Rafferty, A. E., & Griffin, M. A. (2004). Dimensions of transformational leadership: Conceptual and empirical extensions. *The Leadership Quarterly*, 15, 329-354.
- Ramaswami, S. N., & Singh, J. (2003). Antecedents and consequences of merit pay fairness for industrial salespeople. *Journal of Marketing*, 67(4), 46-66.
- Rapp A., Ahearne M., Mathieu, J., & Schillewaert, N. (2006). The impact of knowledge and empowerment on working smart and working hard: The moderating role of experience. *International Journal of Research in Marketing*, 23(3), 279-293.

- Raudenbush, S. W., & Bryk, A. S. (2002). *Hierarchical linear models: Applications and data analysis methods*. 2nd edition, Newbury Park, CA: Sage Publications.
- Rentz, J. O., Shephard, C. D., Tashchian, A., Dabholkar, P. A., & Ladd, R. T. (2002). A measure of selling skill: Scale development and validation. *Journal of Personal Selling and Sales Management*, 22(1), 13-21.
- Rhoads, G. K., Singh, J., & Goodell, P. W. (1994). The multiple dimensions of role ambiguity and their impact upon psychological and behavioral outcomes of industrial salespeople. *Journal of Personal Selling & Sales Management*, 14(3), 1-24.
- Rizzo, J. R., House, R. J., & Lirtzman, S. I. (1970). Role conflict and ambiguity in complex organizations. *Administrative Science Quarterly*, 15(2), 150.
- Robinson, S. L. (1996). Trust and breach of the psychological contract. *Administrative Science Quarterly*, 41(4), 574-599.
- Roehling, M. V., Boswell, W. R., Caligiuri, P., Feldman, D., Graham, M. E., Guthrie, J. P., Morishima, M., & Tansky, J. W. (2005). The future of HR management: Research needs and directions. *Human Resource Management*, 44(2), 207-216.
- Rousseau, D. M., & Greller, M. M. (1994). Human resource practices – Administrative contract makers. *Human Resource Management*, 33(3), 385-401.
- Rowold, J., & Heinitz, K. (2007). Transformational and charismatic leadership: Assessing the convergent, divergent and criterion validity of the MLQ and the CKS. *Leadership Quarterly*, 18(2), 121-133.
- Rucker, D. D., & Galinsky, A. D. (2008). Desire to acquire: Powerlessness and compensatory consumption. *Journal of Consumer Research*, 35(August), 257-267.
- Ruyter, K. de, Wetzels, M., & Feinberg, R. (2001). Role stress in call centres: Its effects on employee performance and satisfaction. *Journal of Interactive Marketing*, 15(2), 23-35.
- Rynes, S. L., Giluk, T. L., & Brown, K. G. (2007). The very separate worlds of academic and practitioner periodicals in human resource management: Implications for evidence-based management. *Academy of Management Journal*, 50(5), 987-1008.
- Saxe, R., & Weitz, B. (1982). The SOCO scale: A measure of the customer orientation of salespeople. *Journal of Marketing Research*, 19(3), 343-351.
- Schippers, M. C., Den Hartog, D. N., Koopman, P. L., & Wienk, J. (2003). Diversity, reflexivity, and team outcomes: The moderating effects of outcome interdependence and group longevity. *Journal of Organizational Behavior*, 24, 779-802.
- Schippers, M. C., Den Hartog, D. N., & Koopman, P. L. (2007). Reflexivity in teams: A measure and correlates. *Applied Psychology: An International Review*, 56(2), 189-211.
- Schippers, M. C., Edmondson, A. E., West, M. A. (2006). *The role of reflexivity in team information processing and decision making*. Paper presented at the Academy of Management Meeting, Atlanta.
- Schippers, M. C., Den Hartog, D. N., Koopman & Knippenberg, D. van (2008). The role of team leadership in enhancing team reflexivity and team performance. *Human Relations*, in press.
- Schneider, B., Ehrhart, M. G., Mayer, D. M., Saltz, J. L., & Niles-Jolly, K. (2005). Understanding organization-customer links in service settings. *Academy of Management Journal*, 48(6), 1017-1032.
- Schoonhoven, C.B. (1981). Problems with Contingency Theory: Testing Assumptions Hidden within the Language of Contingency "Theory". *Administrative Science Quarterly*, 26(3), 349

- Schuler, R. S., & Jackson, S. E. (1987). Linking competitive strategies with human resource management practices. *Academy of Management Executive*, 1(3), 207-219.
- Schweiger, D. M., & Denisi, A. S. (1991). Communication with employees following a merger – a longitudinal field experiment. *Academy of Management Journal*, 34(1), 110-135.
- Selig, J. P., & Preacher, K. J. (2008). *Monte Carlo Method for Assessing Mediation: An interactive tool for creating confidence intervals for indirect effects*. Retrieved on June 6, 2008, from <http://www.people.ku.edu/~preacher/medmc/medmc.htm>
- Sesil, J. C., Kruse, D. L., & Blasi, J. R. (2001). *Sharing ownership via employee stock ownership*. Helsinki: UBU/WIDER.
- Shamir, B., House, R. J., & Arthur, M. B. (1993). The motivational effects of charismatic leadership: A self-concept based theory. *Organization Science*, 4(4), 577-594.
- Sharma, A. Levy, M., & Kumar, A. (2000). Knowledge structures and retail sales performance: An empirical examination. *Journal of Retailing*, 76(1), 53-69.
- Sheppeck, M.A., & Militello, J. (2000) Strategic HR configurations and organizational performance. *Human resource management*, 89(1), 5-16
- Shrout, P. E., & Bolger, N. (2002). Mediation in experimental and nonexperimental studies: New procedures and recommendations. *Psychological Methods*, 7, 422-445.
- Singh, J. (1993). Boundary role ambiguity: Facets, determinants, and impacts. *Journal of Marketing*, 57(2), 11-31.
- Singh, J. (1998). Striking balance in boundary-spanning positions: An investigation of some unconventional influences of role stressors and job characteristics on job outcomes of salespeople. *Journal of Marketing*, 62(July), 69-86.
- Singh, J., Goolsby, J. R., Rhoads, G. K. (1994). Behavioral and psychological consequences of boundary spanning burnout for customer service representatives. *Journal of Marketing Research*, 31(4), 558-569.
- Singh, J., & Rhoads, G. K. (1991). Boundary role ambiguity in marketing-oriented positions: A multidimensional, multifaceted operationalization. *Journal of Marketing Research*, 28(3), 328-338.
- Smith, K. G., Collins, C. J., & Clark, K. D. (2005). Existing knowledge, knowledge creating capability, and rate of new product introduction in high-technology firms. *Academy of Management Journal*. 48(April), 346-357.
- Sparks, J., & Schenk, J. (2001). Explaining the effects of transformational leadership: An investigation of the effects of higher-order motives in multilevel marketing organizations. *Journal of Organizational Behavior*, 22(8), 849-869.
- Speier, C., & Venkatesh, V. (2002). The hidden minefields in the adoption of sales force automation technologies. *Journal of Marketing*, 66(3), 98-111.
- Spiro, R. L., & Weitz, B. A. (1990). Adaptive selling: Conceptualization, measurement, and nomological validity. *Journal of Marketing Research*, 27(1), 61-69.
- Stavrou, E. T. (2005) Flexible work bundles and organizational competitiveness : A cross-national study of the European work context. *Journal of Organizational Behaviour*, 26(8), 923-948
- Sternberg, R. J., & Horvath, J. A. (1999). *Tacit knowledge in professional practice:*

*Researcher and practitioner perspectives.* Lawrence Erlbaum Associates.

Strack, R., Baier, J. & Fahlander, A. (2008). Managing demographic risk. *Harvard Business Review*, 86 (2), 119-128.

Sturman, M. C. (2003). Searching for the inverted U-shaped relationship between time and performance: Meta-analyses of the experience/performance, AGE/performance, and age/performance relationships. *Journal of Management*, 29, 609-640.

Sujan, H., & Weitz, B. (1986). Smarter versus harder: An exploratory attributional analysis of salespeople's motivation. *Journal of Marketing Research*, 23(1), 41-49.

Sujan, H., Sujan, M., & Bettman, J. R. (1988). Knowledge structure differences between more effective and less effective salespeople. *Journal of Marketing Research*, 25 (February), 81-86.

Sujan, H., Weitz, B., & Kumar, N. (1994). Learning orientation, working smart, and effective selling. *Journal of Marketing*, 58(3), 39-52.

Sujan, H., Weitz, B. A., & Sujan, M. (1988). Increasing sales productivity by getting salespeople to work smarter. *Journal of Personal Selling & Sales Management*, 8, 9-19.

Zsulanski, G. (2000). The process of knowledge transfer: A diachronic analysis of stickiness. *Organizational Behavior and Human Decision Processes*, 82(1), 9-27.

Szymanski, D. M. (1988). Determinants of selling effectiveness: The importance of declarative knowledge to the personal selling concept. *Journal of Marketing*, 52(1), 64-77.

Szymanski, D. M. (2001). Modality and offering effects in sales presentations for a good versus a service. *Journal of the Academy of Marketing Science*, 29(Spring), 179-189.

Thomas-Hunt, M. C. Ogden T. Y., & Neale, M.A. (2003). Who's really sharing? Effects of social and expert status on knowledge exchange within groups. *Management Review*, 49(4), 464-477.

Trailer, B., & Dickie, J. (2006). Understanding what your sales manager is up against. *Harvard Business Review*, 84(7/8), 48-55.

Trevor, C. O., & Nyberg, A. J. (2008). Keeping your headcount when all about you are losing theirs: downsizing, voluntary turnover rates, and the moderating role of HR practices. *Academy of Management Journal*, 51(2), 259-276.

Triandis, H. C., Kurowski, L. L., & Gelfand, M. J. (1994). Workplace Diversity. In H. C. Triandis, M. D. Dunnette, & L. M. Hough. (eds.) *Handbook of Industrial and Organizational Psychology* (2nd ed., Vol. 41, pp. 767-827) Palo Alto, CA: Consulting Psychologists Press.

Tsui, A., Egan, T., & O'Reilly, C. (1992). Being different: relational demography and organizational attachment. *Administrative Science Quarterly*, 37, 549-579.

Tsui, A. S., & O'Reilly, C. A., III. (1989). Beyond simple demographic effects: The importance of relational demography in superior-subordinate dyads. *Academy of Management Journal*, 32, 402-442.

Ulrich D., & Beatty, D. (2001). From Partners to Players: Extending the HR Playing Field. *Human Resource Management*, 40(4), 293-307.

Ulrich, D., Younger, J., & Brockbank, W. (2008). The twenty-first-century HR organization. *Human Resource Management*, 47(4), 829-850.

- Van de Ven, A. H. (2007). *Engaged scholarship: a guide for organizational and social research*. Oxford University Press.
- VandeWalle, D., Brown, S. P., Cron, W. L., & Slocum, Jr. J. W. (1999). The influence of goal orientation and self-regulation tactics on sales performance: A longitudinal field test. *Journal of Applied Psychology*, 84(2), 249-259.
- VandeWalle, D., Cron, W. L., Slocum, J. W. (2001). The role of goal orientation following performance feedback. *Journal of Applied Psychology*, 86(4), 629-640.
- VandeWalle, D. M., Ganesan, S., Challagalla, G. N., & Brown, S. P. (2000). An integrated model of feedback-seeking behavior: Disposition, context, and cognition. *Journal of Applied Psychology*, 85, 996-1003.
- Van Dyne, L., Jehn, K. A., & Cummings, A. (2002). Differential effects of strain on two forms of work performance: Individual employee sales and creativity. *Journal of Organizational Behavior*, 23, 57-74.
- Van Knippenberg, D., De Dreu, C. K., & Homan, A. C. (2004). Work group diversity and group productivity: An integrative model and research agenda. *Journal of Applied Psychology*, 89(6), 1008-1022.
- Van Knippenberg, D., & Schippers, M. C. (2007). Work group diversity. *Annual Review of Psychology*, 58, 515-541.
- Verbeke, W., Belschak, F., Bakker, A., & Dietz, B. (2008). When intelligence is (dys)functional for achieving sales performance. *Journal of Marketing*, 72(October), 44-57.
- Verhoef, P. C., & Leeflang, P. S. H. (2009). Understanding marketing department's influence within the firm. *Journal of Marketing*, forthcoming.
- Verwaal, E., Verdu, A. J., & Recter A. (2008). Transaction costs and organisational learning in strategic outsourcing relationships. *International Journal of Technology Management*, (41)1-2, 38-54.
- Vinchur, A. J., Schippmann, J. S., Switzer, F. S., & Roth, P. L. (1998). A meta-analytic review of predictors of job productivity for salespeople. *Journal of Applied Psychology*, 83(4), 586-597.
- Vroom, V.H., & Jago, A.G. (1988). *The new leadership: Managing participation in organizations*. Englewood Cliffs, New Jersey: Prentice-Hall.
- Wageman, R., & Baker, G. (1997). Incentives and cooperation: the joint effects of task and reward interdependence on group performance. *Journal of Organizational Behavior*, 18(2), 139-158.
- Walker, Jr., O. C., Churchill, Jr., G. A., & Ford, N. M. (1977). Motivation and performance in industrial selling: Present knowledge and needed research. *Journal of Marketing Research*, 14(May), 156-168.
- Watson, W. E., Kumar, K., & Michaelson, L. K. (1993). Cultural diversity's impact on interaction process and performance: Comparing homogeneous and diverse task Groups. *Academy of Management Journal*, 36, 590-602.
- Weitz, B. A., & Bradford, K. D. (1999). Personal selling and sales management: A relationship marketing perspective. *Journal of the Academy of Marketing Science*, 27(2), 241-254.
- Weitz, B. A., Sujun, H., & Sujun, M. (1986). Knowledge, motivation, and adaptive behavior: A framework for improving selling effectiveness. *Journal of Marketing*, 50(4), 174-191.
- Weitzman, M. L., & Kruse, D. L. (1990). Profit sharing and productivity. In A. S. Blinder (Ed.), *Paying for productivity: a look at the evidenc.* (pp. 95-141) Washington, D.C.: Brookings Institution.

- West, M. A. (1996). Reflexivity and work group effectiveness: A conceptual integration. In M.A. West (Ed.), *Handbook of Work Group Psychology* (pp. 555-579). Chichester: John Wiley & Sons Ltd.
- West, M. A. (2000). Reflexivity, revolution and innovation in work teams. In M. M. Beyerlein, D. A. Johnson & S. T. Beyerlein (Eds.), *Product development teams* (Vol. 5, pp. 1-29). Stanford, CT: JAI Press.
- Whetten, D. A. (1989). What constitutes a theoretical contribution. *Academy of Management Review*, 14(4), 490-495.
- Williams, K. Y., & O'Reilly, C. A. (1998). Demography and diversity in organizations: A review of 40 years of research. *Research in Organizational Behavior*, 20, 77-140.
- Workman, J. P., Homburg, C., & Jensen, O. (2003). Intraorganizational determinants of key account management effectiveness. *Journal of the Academy of Marketing Science*, 31(Winter), 3-21.
- Wright, P. M. & Boswell, W. R. (2002). Desegregating HRM: A review and synthesis of micro and macro human resource management research. *Journal of Management*, 28(3), 247-276.
- Wright, P. M., & Snell, S. A. (1998). Toward a unifying framework for exploring fit and flexibility in strategic human resource management. *Academy of Management Review*, 23(4), 756-772.
- Wright, P. M., & Snell, S. A. (2005). Partner or guardian? HR's challenge in balancing value and values. *Human Resource Management*, 44(2), 177-182.
- Xenikou, A., & Simosi, M. (2006). Organisational culture and transformational leadership as predictors of business unit performance. *Paper presented at the 16th Annual Congress of the European Association of Work & Organisational Psychology*, 12-14 May, Istanbul.
- Yammarino, F. J., & Dubinsky, A. J. (1994). Transformational leadership theory: Using levels of analysis to determine boundary conditions. *Personnel Psychology*, 47, 787-811.
- Yammarino, F. J., Dubinsky, A. J., Comer, L. B., & Jolson, M. A. (1997). Woman and transformational and contingent reward leadership: A multiple-levels-of-analysis Perspective. *Academy of Management Journal*, 40 (1), 205-222.
- Yammarino, F. J., Dionne, S. D., Chun, J. U., & Dansereau, F. (2005). Leadership and levels of analysis: A state-of-the-science review. *The Leadership Quarterly*, 16, 879-919.
- Ye, J. Y., Marinova, D., & Singh, J. (2007). Strategic change implementation and performance loss in the front lines. *American Marketing Association*, 71(4), 156-171.
- Youndt, M. A., Snell, S. A., Dean, J. W. Jr., & Lepak, D. P. (1996). Human Resource Management, manufacturing strategy, and firm performance. *The Academy of Management Journal*, 39 (4), 836-866.
- Yukl, G. (1999). An evaluation of conceptual weaknesses in transformational and charismatic leadership theories. *Leadership Quarterly*, 10(2), 285-305.
- Zajac, E. J., Golden, B. R., & Shortell, S. M. (1991). New organizational forms for enhancing innovation: the case of internal corporate joint ventures. *Management Science*, 37(2), 170-184.
- Zenger, T. R., & Lawrence, B. S. (1989). Organizational demography: The differential effects of age and tenure distributions on technical communication. *The Academy of Management Journal*, 32(2), 353-376.

## Samenvatting (Dutch Summary)

### Relevantie

Het managen van de prestaties van werknemers, en uiteindelijk van organisaties, is waarschijnlijk één van de meest kritieke kwesties binnen de management wetenschap (Griffin, Neal & Parker, 2007). Derhalve is een verbeterd begrip van waarom sommige werknemers en organisaties anderen overtreffen in termen van hun prestaties, zeer waardevol voor zowel onderzoekers als managers (e.g., den Hartog, Boselie & Paauwe, 2004). Het wetenschappelijk veld dat gericht is op het bereiken van dergelijke inzichten is Human Resource Management (HR). HR wordt omschreven als “het beleid, de praktijken, en systemen die werknemersgedrag, -houdingen en -prestaties beïnvloeden” (Noe, Hollenbeck, Gerhart & Wright, 2007: 2). HR speelt een belangrijke rol in de prestaties van werknemers en organisaties (e.g., Delery & Doty, 1996; Youndt, Snell, Dean & Lepak, 1996; Huselid, Jackson & Schuler, 1997). Het theoretisch argument voor deze relatie is dat HR “inputs”, zoals HR strategie, de wijze van training, of van selectie, kunnen leiden tot HR “outputs” zoals bijvoorbeeld: rol duidelijkheid, motivatie of teamwork op het werknemersniveau, dat op zijn beurt weer kan leiden tot uitkomsten op organisatieniveau, zoals aandeelhouderswaarde, winst of klanttevredenheid (e.g., Guest, 1997). Vanuit het perspectief van het bereiken van bedrijfsdoelstellingen op de lange-termijn, hebben wetenschappers in strategisch management beargumenteerd dat HR een potentiële bron van duurzaam concurrentievoordeel voor de onderneming kan zijn (Barney, 1991; Barney & Wright, 1998).

### Het onderzoeksveld en zijn huidige staat

Wright en Boswell (2002) hebben het complete onderzoeksveld van HR samengevat en geanalyseerd. Vervolgens classificeren zij het veld aan de hand van twee dimensies: (1) het analyseniveau, en (2) het aantal HR praktijken. Ten eerste wordt er onderscheid gemaakt tussen twee analyseniveaus: de *organisatie*, en het *individu*. Studies die organisaties als eenheid van analyse beschouwen worden ook wel “macro” HR studies genoemd. In studies binnen de macro-HR traditie wordt traditioneel gefocust op het verbinden van concepten die betrekking hebben op HR met organisatieprestaties (e.g., Huselid, 1995; Youndt et al., 1996; Trevor & Nyberg, 2008). Studies die zich richten op het individu worden ook wel “micro” HR studies genoemd. Over het algemeen heeft micro-HR onderzoek zich gefocust op het effect van HR praktijken op de prestaties van individuen of kleine werkgroepen (e.g., Becker, Billings, Eveleth & Gilbert, 1996; Cote & Miners, 2006). Ten tweede maakt de classificatie onderscheid tussen HR studies die te maken hebben met één enkele HR praktijk, zoals een bepaalde leiderschapstijl (e.g., Liden, Wayne, Zhao & Henderson, 2008), of een specifiek beloningssysteem (e.g., Ramaswami & Singh, 2003), en HR onderzoek dat de effecten van *meerdere* HR praktijken tegelijk bestudeert (e.g., Ichniowski, Shaw & Prenzushi, 1997; Delery & Doty, 1996).

Vier belangrijke categorieën van HR-onderzoek worden vervolgens onderscheiden. Ten eerste, onderzoek dat typisch te maken heeft met bedrijfsprestaties gebaseerd op een reeks van meerdere HR praktijken. Dit veld wordt vaak gerefereerd als “Strategic HRM”, of “Industrial Relations”. Ten tweede, onderzoek dat gefocust is op het verklaren van bedrijfsprestaties door één specifiek functioneel gebied van

HR (e.g., een veranderend beloningssysteem). Ten derde, onderzoek dat de nadruk legt op hoe een reeks van HR praktijken invloed heeft op het individu of een kleine werkgroep. Een voorbeeld hiervan is de studie van Rousseau en Greller (1994) betreffende het effect van een systeem van HR praktijken dat invloed heeft op de relatie van een werknemer met de organisatie. Ten vierde, onderzoek dat zich richt op de vraag hoe individuele HR praktijken invloed hebben op de prestaties van individuen in organisaties. Deze laatstgenoemde stroom van HR onderzoek wordt typisch gedreven door inzicht vanuit de arbeids- en organisatiepsychologie (e.g., theorieën over leiderschap of motivatie). Wanneer wij de huidige staat van het onderzoeksveld bekijken aan de hand van deze classificatie, observeren wij dat HR onderzoek tot op heden de nadruk sterk legt op: (a) meerdere HR praktijken en de invloed hiervan op bedrijfsprestaties en (b) individuele HR praktijken en het effect hiervan op arbeidsprestaties van individuele werknemers. Momenteel hebben beide gebieden een gerespecteerde hoeveelheid aan literatuur opgeleverd. Desalniettemin zijn er voor beide subvelden onderzoekers die pleiten voor belangrijke veranderingen in het academisch denken over de HR-performance relatie.

*Meerdere HR praktijken-bedrijfsprestaties.* De huidige stand van de literatuur over dit thema wordt sterk gedreven door een zogenaamd configuratieel of “systemen” perspectief. Vanuit dit perspectief bestudeert men hoe een reeks van HR praktijken gerelateerd is aan bedrijfsprestaties (Lepak & Shaw, 2008). Vanuit dit perspectief gezien zouden HR praktijken op twee manieren aangepast moeten worden. Ten eerste, moeten HR praktijken gemanaged worden als attributen van een “HR systeem”, dusdanig dat er coherentie en synergie bereikt wordt. Aan de andere kant moet er rekening gehouden worden met het vermijden van “dodelijke combinaties” van de waarden van HR attributen (Becker, Huselid, Pickus & Spratt, 1997: 43). Empirisch bewijs van dit begrip is zeer schaars, ondanks de vele oproepen in de literatuur om dit fenomeen diepgaander te bestuderen. Wetenschappers spreken zelf van een gebrek aan theoretische grondslag voor HR-performance onderzoek, alsook een kritiek gebrek predictieve validiteit om prestaties te voorspellen aan de hand van HR (Fleetwood & Hesketh, 2006).

*Individuele HR praktijk-werknemer arbeidsprestatie.* De literatuur betreffende dit onderwerp heeft zich ontwikkeld tot een punt waar uitgebreid empirisch bewijs beschikbaar is van determinanten van arbeidsprestaties. Toch zijn deze determinanten hoofdzakelijk onderzocht op het enige (micro) niveau van het individu. Echter, tegenwoordig pleiten auteurs voor het onderzoeken van het effect van contextuele (macro) factoren op de arbeidsprestatie van individuen (Bamberger, 2008). De kernvraag van dergelijke studies is wat de effecten van zulke factoren zouden kunnen zijn op arbeidsprestaties. In lijn hiermee stellen wij dat een beter inzicht in de HR-prestatie verhouding van werknemers een beter begrip van de rol van contextuele factoren rondom werknemers in organisaties eist. Twee van de belangrijkste factoren in de contextuele omgeving van de werknemers in het bedrijfsleven zijn: (a) leiders en (b) teams.

### **Onderzoeksthema's**

Dit proefschrift richt zich op drie HR thema's: (1) HR strategie (hoe kan HR als een systeem van attributen invloed hebben op prestaties?) (2) Leiderschap (wat is de rol van de leiders in het bevorderen van

werknemers prestaties?) en (3) Teamwork (hoe kunnen teams de prestaties van werknemers beïnvloeden?). Het proefschrift legt de nadruk op de prestaties van medewerkers in verkoopfuncties.

*HR strategie.* Zoals Lepak en Shaw (2008) beweren; strategisch HR onderzoek wordt gekenmerkt door een macro-niveau focus. Belangrijke thema's zijn coherentie en bedrijfsprestaties. Met betrekking tot de coherentie wordt er onderscheidt gemaakt tussen twee types. Ten eerste richt externe coherentie zich op de fit tussen bedrijfsstrategie en HR praktijken. Kijk bijvoorbeeld naar Regus, een bedrijf dat tegen aantrekkelijke prijzen kantoorruimte verhuurt en probeert zich te onderscheiden van haar concurrenten door superieure klantenservice. De strategie van Regus is typisch een voorbeeld van wat Porter (1985) zou definiëren als "differentiatie". In dit voorbeeld zou externe coherentie leiden tot de ontwikkeling van fit met de HR praktijken van Regus. In dit geval bijvoorbeeld met de wijze van training en/of het belonen van klantenservice medewerkers. Zoals Regus claimt op haar website: "We choose the best teams, train them and then let them wow you with their personalized customer service" ([www.regus.com](http://www.regus.com)). Ten tweede, gaat interne coherentie over het bereiken van fit tussen de verschillende HR praktijken. In het geval van de training van Regus van haar klantenservice medewerkers bijvoorbeeld, zal de HR praktijk van de training zeer onwaarschijnlijk doorvertaald worden in een hoger niveau van klantvriendelijk gedrag als vertegenwoordigers niet worden geselecteerd (of "chosen") voor klantgeoriënteerde attitudes, en/of beloofd voor klantvriendelijk gedrag. Dus een gebrek aan interne coherentie van HR praktijken (i.e., attributen) impliceert suboptimale bedrijfsprestaties.

*Leiderschap.* Den Hartog et al. (2004: 563) beschrijft de belangrijke rol van supervisors bij het verwezenlijken van HR doelen. Zij stellen dat leiders (i.e., supervisors) een cruciale rol spelen in het managen van werknemers naar prestaties. In dit proefschrift verkennen wij de rol van leiders in het verbeteren van de arbeidsprestatie van werknemers. In het bijzonder behandelen wij de rol van verschillende dimensies van transformationeel leiderschap bij het beïnvloeden van doel oriëntaties en adaptiviteit van werknemers.

*Teamwork.* Teamwork is vandaag de dag een feit geworden in het bedrijfsleven. In onze huidige economie worden banen steeds meer onderling afhankelijk, dit betekend dat werknemers voor hun prestaties steeds meer afhankelijk zijn van andere medewerkers voor hun inzet, informatie en resources (Wageman & Baker, 1997). Een recente meta-analyse wijst op het belang van teamworkprocessen voor de prestaties van werknemers in teams (LePine, Piccolo, Jackson, Mathieu & Saul, 2008). Dit proefschrift richt zich op hoe een team kan dienen als een bron van resources voor een individuele werknemer, om een hoger niveau van prestaties te bereiken. Specifieker gesteld onderzoeken wij de rol van team reflexiviteit in het potentieel terugdringen van de rol stress van werknemers.

*Focus op verkopers.* In micro-HR onderzoek leggen wetenschappers de nadruk op relaties tussen arbeidsproductiviteit van individuen en haar determinanten. Het begrijpen van deze relaties is waardevol voor zowel theoretici als managers, en bijna nergens is dit inzicht meer waardevol dan in sales. Zoals Vinchur, Schippmann, Switzer en Roth (1998: 586) stellen: "Het werk van verkopers verdient bijzondere aandacht in het licht van het belang ervan, de veelvuldigheid, en haar unieke karakteristieken". De "bijzondere aandacht" die hier beschreven wordt refereert naar aandacht van onderzoekers die relaties

onderzoeken tussen HR praktijken en arbeidsprestaties van verkopers. In dit proefschrift richten wij ons op arbeidsprestaties van werknemers in verkoopfuncties omdat: (1) het werk van verkopers een bijzonder hoge mate van autonomie kent, aangezien zij een belangrijke rol spelen tussen het bedrijf dat iets wil verkopen en de koper, (2) de mate van afwijzing inherent aan het verkopen uitzonderlijk is, ten opzichte van andere beroepen, (3) steeds toenemende eisen van de klant, in combinatie met de groeiende trend van het meten en sturen van sales-effectiviteit door managers verkopers in de huidige economie confronteert met continu stijgende prestatiedoelstellingen (Trailer & Dick, 2006). In veel sales-organisaties zijn “aanvaardbare” prestaties van verkopers ontoereikend voor het bereiken van bedrijfssucces in de markt (Dubinsky & Skinner, 2002: 589). Tot slot, (4) is er een overvloed van de kandidaat-constructen die worden beïnvloed door leiders en teams, dusdanig om de arbeidsprestatie van verkopers te verbeteren.

### **De studies in deze dissertatie**

Het doel van deze dissertatie is om meer inzicht te krijgen in de HR-performance link. De dissertatie vangt aan met een hoofdstuk ter inleiding (1) en sluit af met een concluderend hoofdstuk (5). Daarnaast bevat de dissertatie drie inhoudelijke hoofdstukken (2, 3 en 4) die weliswaar afzonderlijke studies representeren, maar ook verbonden worden door een gemeenschappelijk thema: “het managen van mensen richting prestaties”. In wat volgt gaan we kort in op ieder van deze hoofdstukken.

In hoofdstuk 2 lag de nadruk op het “systeem van attributen” perspectief op organisaties. Dit perspectief werd toegepast op HR en een HR strategie werd geconceptualiseerd als een systeem van attributen. In de studie werden hypothesen getest dat coherentie tussen HR attributen zou leiden tot synergie effecten voor bedrijfsprestaties. De hypothesen zijn getest met een dataset van 1777 bedrijven in 14 Europese landen. In lijn met de hypothesen, en controlerend voor land en industrie, werd in dit hoofdstuk aangetoond dat een HRM configuratie van calculatief en participatief HRM beleid inderdaad positieve synergie effecten heeft op bedrijfsprestaties. Bovendien onthullen de gegevens dat een calculatief HRM beleid dat gefocust is op werknemers als collectief, positieve effecten heeft op bedrijfsprestaties. Over het belang van interne coherentie in HR strategie bestaat al lange tijd een theoretisch debat in de HR literatuur (e.g., Delery & Doty, 1996), en er is zelfs gesteld dit thema een fundamentele onderzoeksvraag vertegenwoordigt die HR onderzoekers nog steeds moeten beantwoorden. (Rynes et al., 2007: 1001). Onze studie is een van de eerste (uitgezonderd de studie van Ichniowski et al., 1997) die deze vraag ook daadwerkelijk empirisch beantwoord en tevens de theoretische onderbouwing voor HR configuraties aanreikt. Door de theoretische lens die wij toepassen (de systemen van attributen theorie als een theoretisch raamwerk waarmee HR systemen kunnen worden geanalyseerd), in combinatie met de empirische resultaten, dragen wij in belangrijke mate bij tot het onderzoeksveld. De studie toont tevens aan dat ogenschijnlijk contrasterende subsystemen van HR praktijken naast elkaar kunnen bestaan in een zogenaamd “HR beleid” (Colbert, 2004). Ten slotte suggereren onze bevindingen, dat een calculatief HR systeem alleen direct invloed heeft op bedrijfsprestaties als dit wordt gericht op werknemers als *collectief*, dat het belangrijk is om rekening te houden met de analytische eenheid (i.e., Individu of collectief) waarop de HR systemen zijn “gericht”.

In Hoofdstuk 3 lag de nadruk op transformationeel leiderschap. Wij stelden dat transformationeel leiderschapsgedrag een effect zou hebben op zowel doel oriëntaties (i.e., leren en prestatie doel oriëntaties), als adaptief verkoopgedrag. Bovendien stelden wij dat sterkere doel oriëntaties en adaptief verkoopgedrag prestaties zouden voorspellen. Met behulp van een steekproef van 563 verkoopmedewerkers in zeven verschillende organisaties, hebben wij de effecten van vijf verschillende transformationeel leiderschap dimensies op de doel oriëntaties en mate van adaptief verkoopgedrag van verkopers getoetst. Tevens onderzochten we de effecten van doel oriëntaties en adaptief verkoopgedrag op objectieve arbeidsprestaties van verkopers. De data ondersteunden onze hypothesen. In overeenstemming met onze voorspellingen, hebben wij kunnen vaststellen dat: inspirerende communicatie en intellectuele stimulatie beide een leerdoel oriëntatie aanmoedigen; inspirerende communicatie een prestatie doel oriëntatie bevordert; inspirerende communicatie adaptief verkoopgedrag motiveert, en zowel prestatie doel oriëntatie als adaptief gedrag de prestaties van verkoper positief beïnvloedt. In aanvulling op deze resultaten, kwam er ook een aantal onverwachte bevindingen uit ons onderzoek naar voren: persoonlijke erkenning van leiders vermindert leerdoel oriëntatie van medewerkers; het articuleren van een visie door leiders vermindert een prestatie doel oriëntatie van medewerkers; intellectuele stimulatie, evenals persoonlijke erkenning door leiders vermindert adaptief verkoopgedrag, en een leerdoel oriëntatie van medewerkers is disfunctioneel voor hun arbeidsprestaties.

Binnen de stroming van literatuur over de arbeidsprestatie van verkopers bestaat er concensus over de relevantie van zowel doel oriëntaties (i.e., leer- en prestatie oriëntaties), als adaptief gedrag (e.g., Sujan, et al., 1994; Franke & Park, 2006). Echter, aan de vraag wat leiders van verkopers kunnen doen om doel oriëntaties en adaptief verkoopgedrag aan te moedigen en te stimuleren werd in de literatuur, tot op heden, zeer weinig aandacht besteed. Dit is verrassend, gezien het feit dat tal van wetenschappers hebben gesuggereerd dat transformationele leiders doel oriëntaties mogelijk zouden kunnen beïnvloeden (e.g., Kohli et al., 1998; Mackenzie et al., 2001). Onze bevinding dat transformationeel leiderschap zowel gerelateerd is aan doel oriëntaties, als aan adaptief verkoopgedrag vertegenwoordigt niet alleen een nieuwe empirische bevinding voor het onderzoeksveld, maar houdt ook een theoretische bijdrage in, omdat het ons begrip van de antecedenten van doel oriëntaties en adaptief gedrag van mensen in organisaties vooruitbrengt.

In Hoofdstuk 4 lag de nadruk op team reflexiviteit. Wij conceptualiseerden het team waarin een verkoper is geplaatst als een bron van informatieve resources voor de verkoper om ambiguïteit over zijn/haar rol te reduceren. Vervolgens stelden wij dat team reflexiviteit invloed kan hebben op de prestaties van individuele verkopers door hun niveau van rol ambiguïteit te reduceren. Bovendien hebben wij de hypothese gesteld dat dit cross-level effect conditioneel is aan het niveau van leeftijdsdiversiteit van teams. Onder de conditie van hoge leeftijdsdiversiteit voorspelden wij dat team reflexiviteit de rol ambiguïteit van individuele medewerkers zou verhogen, en zodoende disfunctioneel is voor de arbeidsprestatie van deze verkopers. Om onze hypothesen te toetsen hebben wij een steekproef van 131 verkopers (welke in hun dagelijks werk gegroepeerd zijn in 33 verkoopteams) onderzocht. Ter ondersteuning van onze hypothesen toont onze data dat team reflexiviteit inderdaad rol ambiguïteit vermindert en, zoals voorspeld: de

arbeidsprestaties van verkopers in homogene leeftijdsteams verbeterd. In tegenstelling tot wat eerdere onderzoekers suggereerden, hebben wij gedemonstreerd dat reflexiviteit disfunctioneel kan zijn, omdat het verkoopmedewerkers meer rol ambigu (i.e., stressvol) en minder succesvol maakt wanneer zij geplaatst zijn in een verkoopteam met een hoge mate van leeftijdsdiversiteit.

Het onderzoek naar arbeidsprestaties van verkopers is op een punt aangekomen waarop het de disfunctionaliteit van rol ambiguïteit algemeen geaccepteerd wordt (e.g., Brown & Peterson, 1993). Onze studie brengt de literatuur vooruit door aan te tonen dat rol ambiguïteit van een verkoper verminderd kan worden door de reflexiviteit van het verkoopteam. (West, 1996). Wij tonen aan dat iemand die lid is van een reflexief, maar –in termen van leeftijd- homogeen verkoopteam, productiever is in het behalen van zijn/haar doelen. In aanvulling hierop is gebleken dat de leeftijdsdiversiteit van een verkoopteam inderdaad het effect van reflexiviteit op verkoopprestaties matigt. Dus op het hoogste niveau van abstractie toont onze studie aan dat prestaties van medewerkers kunnen worden ondersteund, maar ook kunnen worden verslechterd, door lid te zijn van een bepaald team. Als één van de eerste studies die dit empirisch demonstreert, biedt onze studie een belangrijke bijdrage aan het onderzoeksgebied. Daarnaast draagt deze studie bij aan ons begrip van de rol van diversiteit, door het demonstreren van negatieve (naast positieve) effecten van leeftijdsdiversiteit op arbeidsprestaties van verkopers, in interactie met reflexiviteit. Dus, in tegenstelling tot wetenschappers in Marketing die traditioneel de voordelen van diversiteit in verkoopteams benadrukken (e.g., Weitz & Bradford, 1999), werpt onze studie een nieuw licht op deze kwestie door te demonstreren dat diversiteit ook negatieve effecten voor prestaties kan hebben.

## **Conclusie**

Het doel van dit proefschrift is om een bijdrage te leveren aan de kennis op het gebied van de HR-prestatie verhouding, zowel op macro- als op microniveau. Met betrekking tot het macroniveau onthullen de bevindingen dat interne coherentie van HR strategie een positief effect heeft op bedrijfsprestaties. Met betrekking tot het microniveau laten de resultaten zien dat zowel transformationeel leiderschap, als teamreflexiviteit functioneel, maar ook disfunctioneel kan zijn voor prestaties. Ik hoop dat deze inzichten waardevol zijn voor zowel wetenschappers die de dynamische HR-prestatie relatie onderzoeken, als managers die in de praktijk verantwoordelijk zijn voor het leiden van (verkoop) medewerkers naar betere prestaties.

## Biography

Bart Dietz is Assistant Professor of Human Resource Management (HRM) at Rotterdam School of Management, Erasmus University. He earned his Ph.D. in General Management in 2009 from the Erasmus University Rotterdam, and his MSc. in Business Administration (Marketing) from the same university in 2002 after an exchange semester at Brandeis International Business School. His research focuses on HR Strategy, Leadership and Teamwork, with an emphasis on field-studies of Salespeople. He presented his work at major international conferences in Management



(Academy of Management), as well as in Marketing (American Marketing Association), and is regularly invited as a speaker for practitioner audiences. He is author and co-author of various book chapters and articles, some of which have been published, for instance in the *Journal of Marketing*. He also served as an ad-hoc reviewer for the *Journal of Marketing*, the *Journal of Organizational Change Management*, and *Maandblad voor Accountancy & Bedrijfsconomie*. Bart teaches courses in HRM at the Bachelor, Master and Executive levels, and has been nominated teacher of the year for undergraduate teaching. His past research and consulting clients include Manpower, Deloitte, Eneco, ZP Group, Heineken, Cap Gemini, ING, and Rabobank. During his MSc. studies, he performed an internship at the global sales headquarters of Elsevier Science (New York), and worked in personal selling for more than five years at Hans Verkerk/Intersect Keukens, where he won multiple competitive sales awards.

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## MANAGING (SALES)PEOPLE TOWARDS PERFORMANCE HR STRATEGY, LEADERSHIP & TEAMWORK

Managing people towards performance is one of the most critical priorities for business leaders. This dissertation focuses on this important issue and explores respectively how HR strategy, leaders, and teams, impact performance. It addresses how HR as a system of coherent attributes, multiple dimensions of transformational leadership and team reflexivity can enhance the performance of (sales)people in organizations.

Based on a series of field-studies, the present dissertation demonstrates a number of novel insights. First, it reveals that internal coherence of HR strategy has a positive effect on organizational performance. Second, it demonstrates that both a leader's level of transformational leadership, as well as a team's level of reflexivity can be functional, but also dysfunctional for job performance of people in organizations.

These results are important for managers, as they represent evidence-based insights, some of which are counter-intuitive, on how they can effectively manage people towards performance. For researchers, the findings contribute to a deeper understanding of the HR-performance relationship.

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Fax +31 10 408 96 40  
E-mail [info@erim.eur.nl](mailto:info@erim.eur.nl)  
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