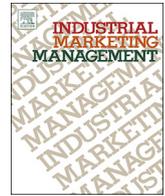




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Research paper

Boosting sales force morale in highly dynamic, complex markets: The role of job resources

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ABSTRACT

Sales force morale constitutes an important managerial topic that is often linked to key outcomes such as sales force turnover and productivity. Unfortunately, however, scholarly work in this area is strikingly limited. Accordingly, the goal of this study is to provide a first rigorous assessment of the role of morale in a sales context. Drawing on Job Demands-Resource (JD-R) as our theoretical lens and using a unique dataset that includes responses from three sources (i.e., sales managers, salespeople, and secondary objective data) from 81 companies over two time periods, our study makes several contributions. First, we offer a conceptualization of sales force morale and thus advance this timely and managerially relevant topic in a JD-R setting. Second, we show the negative impact of market demands (i.e., customer purchase complexity and market dynamism) on sales force morale. Third, the findings highlight the positive impact of morale on sales force turnover and productivity. Fourth, results show that two job resources attenuate the negative impact of market demands on sales force morale (i.e., sales capabilities training sales unit's cross-functional cooperation). Surprisingly, however, we find that a third job resource – that is, a firm's product portfolio depth – actually accentuates, rather than attenuates, the negative effects of market demands on sales force morale. We conclude by discussing the theoretical and managerial implications of our work and by elaborating on exciting avenues for future research in the area.

1. Introduction

Improving sales force morale is widely regarded among practitioners as a valuable strategy that can significantly enhance key outcomes such as job performance and turnover (Martin, 2015). Supernormal turnover at companies such as Groupon, for example, has been attributed to low levels of salespeople's morale (Ovide, 2012). Not surprisingly, therefore, proactive companies, such as John Deere, are investing substantial resources to systematically learn about, measure, and manage employee morale (Power, 2016). Despite this level of practitioners' interest, scholars have not demonstrated an equal amount of attention in the notion of sales force morale. As shown in Table 1, the topic of sales force morale has been the subject of very limited research in the extant marketing literature. As such, two important research gaps remain.

First, the concept of sales force morale has not been the direct focus of much research in the extant marketing literature, with only tangential reference to the concept and without providing a clear definition or how it differs from other constructs, which seem to be overshadowing the concept of sales force morale (see Table 1). For instance,

morale has been equated to and used interchangeably with the constructs of motivation (Cotham III, 1968), general feeling states and attitudes (Mantel, 2005), or satisfaction (Churchill, Ford, & Walker, 1976). Given this lack of attention, prior research offers little specific guidance concerning ways managers can employ to manage sales force morale.

Second, although prior research on morale outside marketing has provided useful insights on what morale is in a general employee setting (e.g., Chang, Rosen, & Levy, 2009; Subramony, Krause, Norton, & Burns, 2008), at least two realities of the modern sales position require attention to how morale manifests and functions as well as to what are its antecedents, boundary conditions, and consequences in a sales force context. First, many salespeople work in physical, social, and psychological isolation from the firm for which they work (Dubinsky, Howell, Ingram, & Bellenger, 1986; Ingram, LaForge, Locander, MacKenzie, & Podsakoff, 2005) thereby making activity less visible to management. Reduced proximity to management is further amplified today due to many firms' initiatives for salespeople to work in “virtual offices” where salespeople work from remote locations with fewer chances for interaction with their supervisors (Mulki & Jaramillo, 2011). Isolation from

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Table 1
Representative research on morale.

Study	Focus of study	Definition	Operational definition	Data source(s)	Type	Other comments
Baehr and Renck (1958)	Aim of investigation was to define employee morale and its dimensions.	Does not explicitly define employee morale	The authors describe employee morale as a function of integration with the organization, job satisfaction, immediate supervision, and friendliness and cooperation of co-workers.	Industrial employees	Empirical	The authors draw on 'needs theories' to develop a multi-dimensional scale of employee morale.
Britt and Dickinson (2006)	Evaluates the role of morale, compared to depression, as a positive psychology construct.	"A service member's level of motivation and enthusiasm for achieving mission success" (p. 162)	Four-item scale where soldiers rated their level of personal morale, motivation, energy, and drive.	U.S. military that were deployed in a peacekeeping mission	Empirical	Morale was found to be positively related to engagement in meaningful work and confidence in unit functioning and leadership.
Campbell and Tyler (1957)	This study attempts to provide validity for morale surveys.	A group's average feeling of contentment or satisfaction about the major aspects of the work situation.	The study utilizes a 30-item morale survey.	Sample 1) Employees of insurance companies and sample 2) men in a naval squadron of 10 submariners.	Empirical	The authors find that securing work-group reputations along with morale surveys provides a check for construct validity.
Chang, Rosen, and Levy (2009)	Understanding how employees' perceptions of organizational politics influence individual-level work attitudes and behavior.	Aggregated general employee attitudes.	Aggregated job satisfaction and affective commitment.	Meta-analysis	Empirical	Employee morale perceptions of organizational politics to performance.
Churchill, Ford, and Walker (1976)	The effect of organizational climate variables on job satisfaction.	NA	NA	Salesperson	Empirical	Morale is equated to and used interchangeably with job satisfaction
Cotham III (1968)	The relationship between sales job satisfaction and performance.	NA	NA	Salesperson	Empirical	Morale is equated to and used interchangeably with motivation and job satisfaction
Deeter-Schmelz, Goebel, and Kennedy (2008)	The characteristics and consequences of effective sales managers.	NA	NA	Salesperson, Sales manager	Empirical	Positive morale is described by managers as an outcome of effective management
Dickson, Farris, and Verbeke (2001)	A taxonomy of feedback regularities to improve managers' strategic thinking.	NA	NA	NA	Conceptual	Low employee morale (not defined) is described as having a contagion effect that negatively affects performance.
Mantel (2005)	Contextual and personal influences on salesperson ethical decision-making.	Morale is described generally to involve feeling states and attitudes.	NA	Salespeople	Empirical	Brief discussion on how morale is interpreted inconsistently within and across literature domains, but no clear definition.
Rosen, Levy, and Hall (2006)	Suggests that organizational environments characterized with high levels of informal supervisor support and coworker feedback are associated with lower levels of perceived organizational politics.	Morale stems from individual, but manifests at group level	The authors operationalized morale as a higher order reflective construct with dimensions of job satisfaction and affective commitment	College students and supervisors	Empirical	Morale was found to mediate the relationship between politics and multidimensional performance.
Subramony, Krause, Norton, and Burns (2008)	Understanding how investments in human resources in the form of competitive pay can increase organizational performance.	Employees' collective attitudes toward the organization.	The authors operationalize morale as a three-item scale representing employees' satisfaction with their employer and loyalty toward the organization.	Representative sample of U.S. workforce	Empirical	Morale is found to mediate the relationship between perceptions of competitive pay and future customer satisfaction.
Tice (1997)	Framework for classifying and implementing caps on sales force compensation plans	NA	NA	N/NA	Conceptual	Sales force morale is theorized to be damaged to varying degrees of severity based on the method and timing of changes to sales force compensation plans.
Current Study	How sales managers can utilize firm resources to attenuate the negative demands placed on sales force morale	The sales force's collective attitudes toward major aspects of the job and organization	Measured as a sales force-level, second-order reflective construct with three dimensions: affective organizational commitment, satisfaction with the job, and satisfaction with company policy/procedures.	Salesperson, Sales manager	Empirical	Using JD-R theory, the current study is the first in marketing to conceptualize and empirically examine sales force morale, including its antecedents, outcomes, and managerially controllable moderators.

management renders salespeople less readily susceptible to leadership, motivation, and coaching interventions that may result from manager-salesperson interactions. Fewer outlets of visibility and management intervention provide greater occasion for salespeople to feel isolated, which can lead to decreased levels of job satisfaction and organizational commitment (Mulki, Locander, Marshall, Harris, & Hensel, 2008). Second, there is universal consensus among sales academics and practitioners that the sales job is becoming increasingly complex and dynamic (Jones, Brown, Zoltners, & Weitz, 2005; Plouffe, Bolander, Cote, & Hochstein, 2016; Schmitz & Ganesan, 2014). Powerful forces stemming from evolutions in technology, customer demands, and new forms of competition all create a new “culture” that requires salespeople to adapt quickly and effectively to the velocity with which companies implement new customer strategies, launch new products, and redefine their selling models. This context, however, imposes “escalating demands and expectations on salespeople in virtually all industries” (Ingram, LaForge, & Schwepker, 2011, p. 253), thereby creating conditions conducive to lower sales force morale.

Against this background, our study makes three novel contributions to marketing research. First, we offer a rigorous investigation of the role of morale in a sales context. Specifically, we draw from research in management (e.g., Chang, Rosen, & Levy, 2009; Subramony, Krause, Norton, & Burns, 2008) to define sales force morale as the sales force's collective attitudes toward major aspects of the job and organization (see Table 1). We believe that a better understanding of sales force morale provides unique insights to both managers and academicians.

Second, we shed more light on the antecedents, moderating conditions, and consequences of sales force morale by employing job-demand resource theory (JD-R) as our theoretical lens. In essence, JD-R theory suggests that employee job strain, and thus reduced levels of performance, occurs when there is an imbalance between demands on employees and the resources available to respond to those demands. Accordingly, we investigate the negative impact of two salient demands inherent in the external market environment – that is, customer purchase complexity and market dynamism on sales force morale (see Fig. 1). Both customer complexity and market dynamism have received recent research attention because they are key attributes of the changing sales environment (e.g., Plouffe, Bolander, Cote, & Hochstein, 2016; Schmitz & Ganesan, 2014). Furthermore, JD-R theory suggests that increases in job resources – that is, “tools” provided by the firm to help the sales force successfully manage increased demands – can “buffer” the negative impacts of job demands (Bakker & Demerouti, 2014). Consistent with this notion, we also explore three job resources that may attenuate the negative impact of market demands on morale (i.e., sales capabilities training, firm's product portfolio depth, and sales unit's cross-functional cooperation). Finally, we empirically test assertions of the beneficial effects of sales force morale on key outcomes. In particular, we investigate the extent to which sales force morale reduces sales force turnover and increases sales force productivity.

Finally, the third contribution of our work comes from the fact that while JD-R theory has to date been used at the individual-level (Bakker, Demerouti, & Verbeke, 2004), here we extend the theory to the sales force level, thus answering recent calls for research at the firm-level (Bakker & Demerouti, 2014, 2018). This extension has been advocated because it is currently unknown how the elements of JD-R will operate at different levels. In fact, recent work suggests that resources that buffer the effects of demands at the individual-level may actually exacerbate relationships at the firm-level (Bakker & Demerouti, 2018). To this end, we empirically test the notion that firms can “proactively redesign” jobs at an organizational (e.g., sales force) level in an effort to offset the negative effects of environmental demands. Fig. 2 illustrates the structure and levels of the study variables. Specifically, all constructs in our conceptual model (Fig. 1) are at the sales force-level. In addition, consistent with the prescriptions of compositional models in multilevel theory (Chan, 1998; Kozlowski & Klein, 2000), which we discuss subsequently, sales force morale originates at the individual

salesperson level but manifests as a collective phenomenon at the sales force-level.

Our contributions derive in large part from our ability to employ a unique data set that combines data collected from three sources (i.e., sales managers, salespeople, and secondary objective data) across two time periods for 81 firms. Accordingly, our results provide sales executives with actionable implications for managing sales force morale. Specifically, the results suggest that market demands hurt sales force morale, whereas offering training that improves sales force capabilities or creating a cooperative relationship between the sales unit and marketing or R&D functions buffer the negative influence of market demands. Interestingly, we also find that a deeper product portfolio magnifies the negative effects of a demanding selling context on sales force morale. Finally, our results reveal that boosting sales force morale matters significantly. Specifically, we find that an increase of morale by one point on a 5-point scale improves sales force productivity by €226,834 of operating revenues per salesperson, while lowering turnover rate by 5%.

The remainder of the paper is organized as follows. First, we elaborate on the construct of sales force morale as well as on the JD-R theory upon which we build on. Next, we delve into the conceptual logic of our model and hypotheses, which is followed by details concerning our dataset, methods employed, and results. Finally, we discuss our findings along with limitations and future research directions.

2. Theoretical background

2.1. Sales force morale

Despite the lack of attention on morale in the marketing literature, the concept of morale is well established in the organizational domain (e.g., Peterson, Park, & Sweeney, 2008). Specifically, there is agreement in the extant literature that morale reflects an aggregation of attitudinal variables that stem from the individual employee but manifest at the group or organization level (Rosen, Levy, & Hall, 2006; Subramony, Krause, Norton, & Burns, 2008). Accordingly, morale refers to “employees' collective attitudes toward the organization” (Subramony, Krause, Norton, & Burns, 2008, p. 780). Furthermore, given that job satisfaction and affective organizational commitment constitute the two most important attitudes in organizational research (see Harrison, Newman, & Roth, 2006), prior work has employed these two attitudinal constructs to define morale at the group/organizational level (e.g., Chang, Rosen, & Levy, 2009; Harrison, Newman, & Roth, 2006; Rosen, Levy, & Hall, 2006; Subramony, Krause, Norton, & Burns, 2008).

As mentioned previously, morale can be thought of as the collective attitudes of individuals, representing how positive the group feels as a whole about their shared situation (e.g., Subramony, Krause, Norton, & Burns, 2008). Stated differently, a key aspect of morale is that, in contrast to individual level measures of satisfaction or commitment, it refers to *shared* attitudes of employees within a group (Britt & Dickinson, 2006). This view on morale is consistent with the prescriptions of compositional models in multilevel theory (Chan, 1998) as well as social information processing theory (Salancik & Pfeffer, 1978). Specifically, shared attitudes emerge and manifest at the organizational level through a bottom-up process involving social interaction, development of common experiences, information exchange, and interdependencies in work processes among employees (Kozlowski & Klein, 2000; Schulte, Ostroff, Shmulyian, & Kinicki, 2009). Specifically, due to common influences, such as sharing the same leader and practices, as well as social interaction and communication, employees in the same unit focus on similar aspects of the organization, thus cognitively and affectively evaluating shared job experiences until they gradually reach shared level of feelings toward the organization (Whitman, Van Rooy, & Viswesvaran, 2010). This process of formation of shared attitudes is a key characteristic of sales force key because it explicitly acknowledges that salespeople may have norms of cooperation and collaboration,

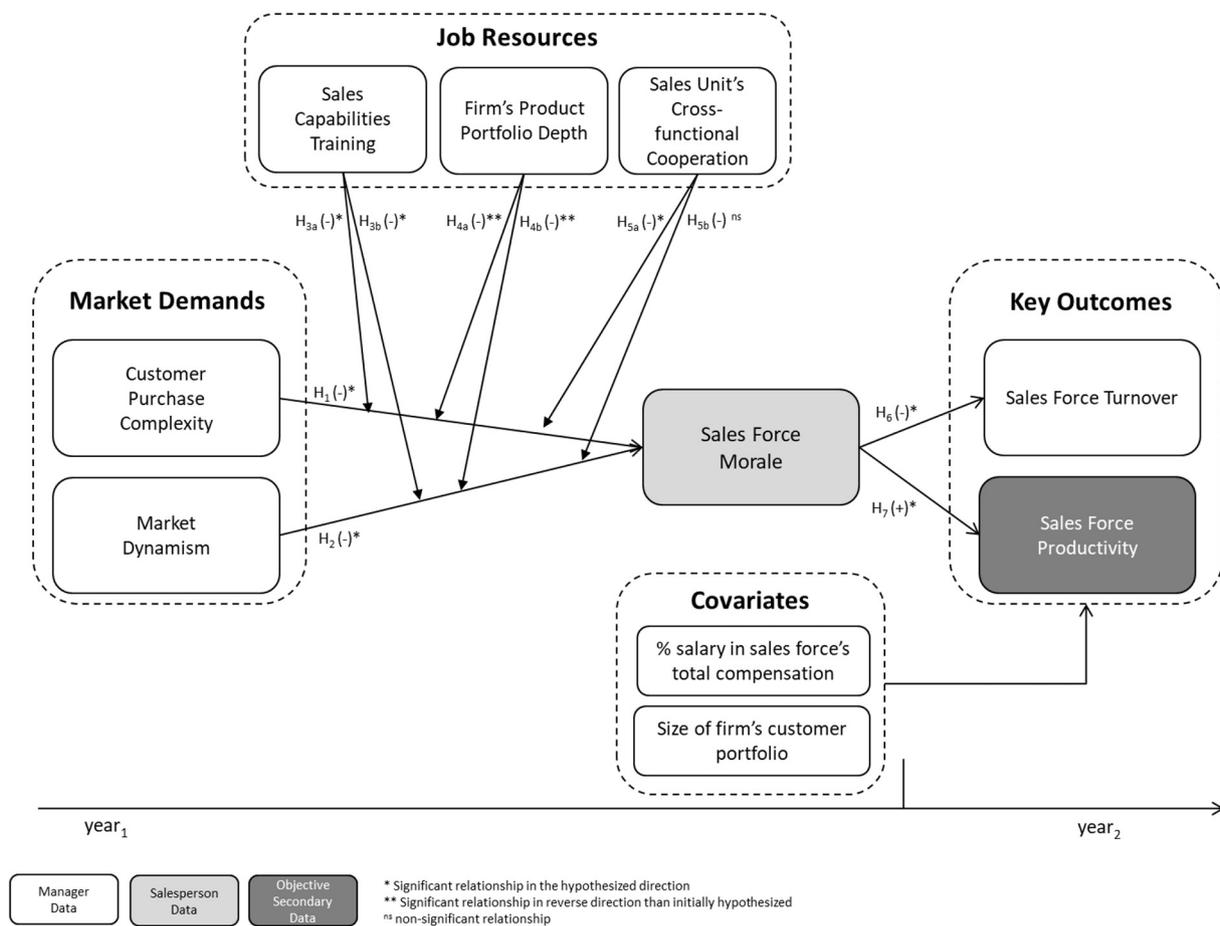


Fig. 1. Conceptual model.

which help enhance the sales unit's productivity above and beyond the influence of individual employee attitudes (Koys, 2001). Our conceptualization of sales force morale draws from this line of research and thus it allows us to approach morale at the organizational (i.e., sales force) rather than the individual-level. This focus on the collective nature of sales force morale is desirable and in line with recent sales literature which has urged researchers to examine the drivers of performance at the sales force level (Cron, 2017; Verbeke, Dietz, & Verwaal, 2011).

While morale reflects employees' attitudes toward major aspects of the job and organization, it is important to distinguish morale from other related constructs, such as psychological climate as well as organizational culture. First, psychological climate refers to meaningful perceptions an individual employee develops of his/her work environment with regards to its structure, processes, and events (Schneider, 1975). These perceptions help an employee determine how beneficial or detrimental the work environment is to his/her well-being (James, James, & Ashe, 1990) and have been found to have a significant relationship with employee work attitudes, motivation, and performance (e.g., Hartmann & Rutherford, 2015). In contrast, sales force morale represents attitudes rather than perceptions, which can lead to the formation of attitudes. Indeed, climate has been found to be an antecedent of sales force morale (Churchill, Ford, & Walker, 1976). In addition, while psychological climate refers to individual perceptions of and the meanings they assign to their environment (Dickson, Resick, & Hanges, 2006), morale refers to organizational-level attitudes (Subramony, Krause, Norton, & Burns, 2008). Second, organizational culture refers to the set of norms, values, and beliefs that define the how business should be conducted within the organization (Barney, 1986). The culture of an organization dictates appropriate employee behavior

and prescribes the ways problems are to be addressed (Schein, 1992). In other words, culture represents why things happen the way they do in any organization and is often difficult to change (Deshpande & Webster Jr, 1989; Schneider & Rentsch, 1987). In contrast, sales force morale reflects salespeople's collective attitudes that can change more easily and frequently. For example, managers can implement new incentive programs that benefit and increase sales force morale.

Against this background, we define sales force morale as the sales force's collective attitudes toward major aspects of the job and organization (Table 1). Accordingly, we operationalize sales force morale as a multidimensional concept comprising collective salespeople's attitudes of (a) affective organizational commitment, (b) satisfaction with the job, and (c) satisfaction with company policies and procedures (see Methods section for measurement details).

Job Demands-Resource Theory.

Our conceptual model is directly informed by JD-R theory. First, employee behavior and performance are a function of job characteristics, which can be modeled using two different categories: job demands and job resources. Job demands are "physical, psychological, social, or organizational aspects of the job that require sustained physical or psychological (cognitive or emotional) effort or skills and are therefore associated with certain physical and/or psychological costs" (Bakker & Demerouti, 2007, p. 312). The JD-R model has typically been used to describe the costs of job demands in terms of negative physiological and/or psychological outcomes (i.e., increased job demands increase negative outcomes). For example, work pressure and/or emotional demands are expected to result in costs, such as burnout derived from the consistent effort required to meet the demands (Bakker, Demerouti, & Verbeke, 2004). As mentioned previously, job demands are represented by two market-related factors in our study:

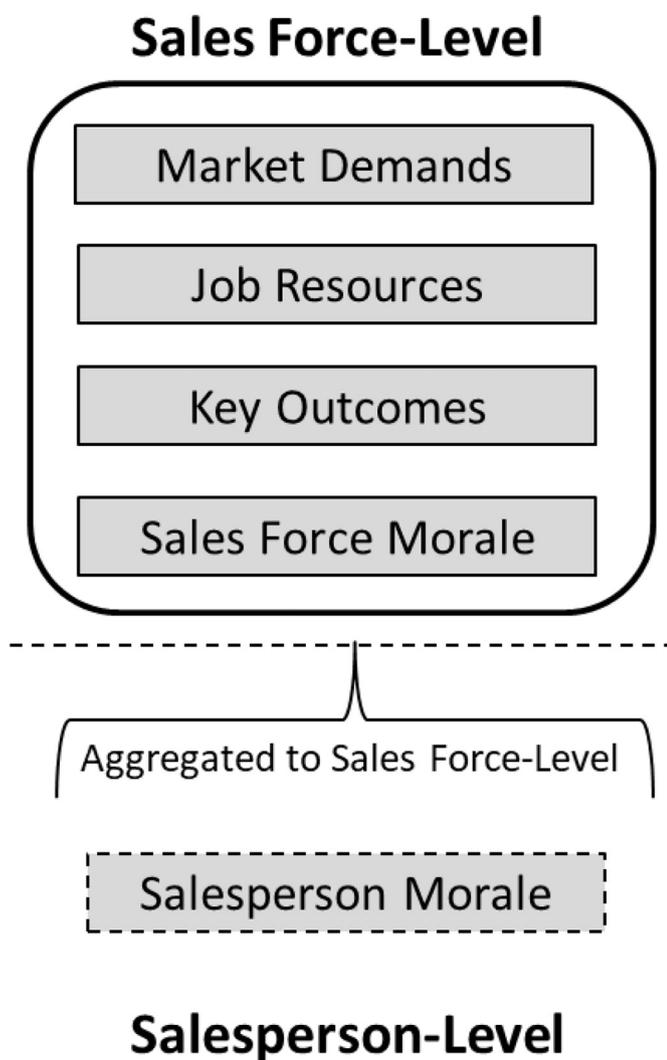


Fig. 2. Structure & levels of study variables.

customer purchase complexity and market dynamism.

Second, JD-R theory also suggests that when facing job demands, employees will draw on the personal and organizational resources available in an effort to buffer the negative effects job demands exert on employee outcomes such as engagement or performance (Bakker & Demerouti, 2007). Job resources are physical, psychological, social, or organizational components of a job that function to help salespeople achieve work goals, reduce job demands (and their costs), and/or stimulate learning (Demerouti, Bakker, Nachreiner, & Schaufeli, 2001). When job resources are properly implemented, they can be motivators that improve work engagement, reduce cynicism, and improve performance (Bakker & Demerouti, 2007). Job resources typically reduce the negative effects of a job demand by giving a worker the right tools to do the job. For example, in a sales setting, a salesperson that works in a fast-paced environment may become highly stressed. However, if the salesperson is provided the help of a support assistant, or a new technology to automate some aspects of their job (e.g., automatic e-mail response, automated billing, etc.) the resource makes some aspects of the job easier, offsetting the high demand of other aspects of the job. In a direct application of JD-R, we propose that the enhancement of morale through three job resources (sales capabilities training, firm's product portfolio depth, and sales unit's cross-functional cooperation) will reduce the negative effect of market demands on sales force morale.

Finally, prior investigations utilizing the JD-R model have been

conducted at the individual employee level. However, recent conceptual work (Bakker & Demerouti, 2014, 2018), suggests that the JD-R model can also be utilized at the organizational level. Applying the JD-R model at this level implies that leaders can redesign jobs to proactively provide job resources that offset current, or even anticipated job demands (Bakker & Demerouti, 2014). For example, increased market demands emanating from anticipating that the market is changing or that new products will soon be introduced can be offset by implementing ongoing, non-intrusive training programs that prepare the sales force for the impending product launches. To the best of our knowledge, the present research is the first study to test JD-R theory at the sales force-level, thus making a novel contribution to the application of JD-R theory.

2.2. Hypotheses development

As shown in Fig. 1, we anticipate that two distinct demands stemming from the market – that is, customer purchase complexity (i.e., longer, more demanding sales processes) and market dynamism (i.e., changing environment) – will negatively impact sales force morale. We also expect that three organizational-level job resources (i.e., sales capabilities training, firm's product portfolio depth, and sales unit's cross-functional cooperation) will mitigate the negative impact of the two market demands on sales force morale. Finally, in keeping with the key tenets of JD-R (e.g., Bakker & Demerouti, 2014), we anticipate that enhanced levels of sales force morale will decrease sales force turnover and increase sales force productivity. We next elaborate on the conceptual logic of our hypotheses.

2.3. Market demands and sales force morale

Customer purchase complexity. Consistent with Anderson, Chu, and Weitz (1987), we define customer purchase complexity as the extent to which sales force tasks entail working with a customer base whose purchase decision-making processes involve long purchase times, high levels of information needs, and/or largely unfamiliar purchase situations. The inclusion of purchase complexity is salient, given that modern sales forces face escalating and recurring complexity as they endeavor to provide product/service solutions that serve client needs (Schmitz & Ganesan, 2014). In doing so, the complex nature of customer purchase decision processes often requires devotion of considerable time to navigating resources and capabilities within their firms (e.g., sales teams, R&D, etc.), and external to their firms (e.g., agencies, outsourcers, etc.) (Plouffe, Bolander, Cote, & Hochstein, 2016; Schmitz & Ganesan, 2014). These requirements leave sales forces challenged to keep up with all that is required of them to simply accomplish their core job task of selling products. In essence, the demands of purchase complexity put the sales force in a difficult position with collective concerns that client demands will go unmet because meeting them is nearly impossible.

Purchase complexity is viewed as a job demand because it is pervasive, continual, and often at the edge of sales force capacities, which can lead to negative psychological consequences (Singh, Goolsby, & Rhoads, 1994). For sales forces that compete in industries with high purchase complexity, job demands are high, as the sales force is tasked with sustained activity concerning multiple customer related elements to complete the sales process. Applying JD-R, we thus anticipate that increases in customer purchase complexity will reduce sales force morale. Hence,

H1. Customer purchase complexity has a negative relationship with sales force morale.

Market dynamism. Market dynamism refers to business environments

that they experience frequent change and shifts in focus (Joshi & Campbell, 2003). Market dynamism typically affects a firm in one of three main areas: customer, competitor and/or technology (Jaworski & Kohli, 1993). Jones, Brown, Zoltners, and Weitz (2005) provide an overview of market dynamism and its impact on the aforementioned areas in sales environments. With regard to customers, dynamic change is evidenced by increased customer requirements for varied product choices and expectations of the salesperson and selling firm. Regarding competition, markets are described as hypercompetitive, in part because product lifecycles are decreasing. With regard to technology, sales forces are required to adapt to ever-changing internal and external technology demands. In short, market dynamism is relevant because current business environments are rapidly changing and less predictable than in the past (Nakata, Zhu, & Izberk-Bilgin, 2011).

The frequently changing characteristic of market dynamism creates high levels of sales force uncertainty (Joshi & Campbell, 2003). The uncertainty caused by market dynamism on various fronts (e.g., customers, competition, and/or technology), is consistent with the definition of a job demand. As such, we consider market dynamism a job demand – that is, an organizational aspect of the job requiring sustained physical or psychological (cognitive or emotional) effort or skills (Bakker & Demerouti, 2007). Applying JD-R, we thus expect that increases in market dynamism will reduce sales force morale. Formally stated:

H2. Market dynamism has a negative relationship with sales force morale

2.3.1. The moderating effects of job resources

Sales capabilities training. Sales capabilities training is referred to training interventions directed toward improving the sales force's task-related knowledge, skills, and abilities (Kumar & Pansari, 2016). This type of training is characterized as the implementation of specific sales skills and abilities through coaching and rewards designed to better equip the sales force to address the demands of evolving sales environments (Miao & Evans, 2012). Sales capability training can be accomplished in different ways. At the organizational level, the goal of sales capability training is to provide instruction and feedback that allows the sales force to better adapt their collective sales strategies to new situations (Mallin & Pullins, 2009). In essence, sales capability training is a management tool designed to equip sales forces with the tools needed to work smarter (Sujan, Weitz, & Kumar, 1994). This type of training is particularly relevant to the present study as the demands emanating from customer purchase complexity and market dynamism represent the complex situations and changing environments addressed by sales capability training.

Recent JD-R research has specifically proposed that organizational level job redesign be used to increase employee job resources and reduce the negative, structural effects of organizational job demands (Bakker & Demerouti, 2014, pp. 17–18). Job redesign is characterized by a structural intervention at the organizational level developed to institute positive changes to jobs, tasks, or the conditions of the job in an effort to collectively react to the negative effects of job demands (Bakker & Demerouti, 2014, p. 18). In essence, sales capability training (e.g., training directed at improving the sales force's task-related knowledge, skills, and abilities in proactive response to job demands) is by definition a job redesign mechanism. It is important to note that the present study is one of the first to empirically study the effects of job redesign in a JD-R context. Thus, we use the conceptualization of job redesign (Bakker & Demerouti, 2014, pp. 17–18) to hypothesize that sales capabilities training is expected to perform as a buffer to the

negative effects of customer purchase complexity and market dynamism on sales force morale. Hence,

H3. Sales capabilities training weakens the negative effects of (a) customer purchase complexity and (b) market dynamism on sales force morale

Firm's product portfolio depth. A firm's product portfolio depth is characterized by firms carrying product lines comprising a large number of product variants (Sorescu, Chandy, & Prabhu, 2003). The aim of product portfolio depth is to equip the sales force with more products (i.e., resources) that better meet changing or complex customer demands (Johnson & Sohi, 2014). There are several reasons that greater product portfolio depth is considered positive for sales forces. First, the products available to the sales force provide solutions to meet customer needs and greater depth of product resources allows more flexibility in solutions in complex and dynamic situations. Second, product portfolio depth can also have a limiting effect on competitors by reducing the need for customers to look to other sources to meet current needs (Christensen, 2001). Third, greater product portfolio depth creates greater economies of scale and thus more competitive offerings for the sales force (Sorescu, Chandy, & Prabhu, 2003). Finally, sales forces that offer greater product depth are viewed as leaders and innovators, which differentiates them from other sales forces (Sorescu, Chandy, & Prabhu, 2003). Given these positive aspects of product portfolio depth, we expect that a deeper product portfolio offers more and better options to salespeople that allows them to cater to increasingly changing and complex customer needs, thereby buffering the negative effects of customer purchase complexity and market dynamism on sales force morale. Formally stated:

H4. Firm's product portfolio depth weakens the negative effects of (a) customer purchase complexity and (b) market dynamism on sales force morale

Sales unit's cross-functional cooperation. In the marketing literature, cross-functional cooperation has been studied in regard to the collaboration of the sales force with marketing and/or research and development (e.g., Ernst, Hoyer, & Rubsaamen, 2010; Le Meunier-FitzHugh, Massey, & Piercy, 2011). Accordingly, we define cross-functional cooperation as the degree to which the sales unit cooperates with the marketing and research and development (R&D) units in the strategy making process (De Luca & Atuahene-Gima, 2007). Cooperation is accomplished by “collaborative strategy making” that includes shared goals, mutual understandings, shared resources, shared vision, and rapport between the sales force and other functions (Le Meunier-FitzHugh, Massey, & Piercy, 2011). Cross-functional cooperation is desired because, without it, each function pursues different goals and priorities creating conflict between the functions (Ernst, Hoyer, & Rubsaamen, 2010). When cooperation is in place, positive outcomes are achieved (e.g., superior value creation, and performance) and conflict is reduced (Guenzi & Troilo, 2007). These cross-functional cooperation outcomes represent a job resource that is supportive of sales force efforts. Cross-functional cooperation is consistent with job resource elements because cross-functional cooperation represents outcomes that are physical, psychological, and organizational components of the job that improve the achievement of work goals, reduces job demands (and the associated costs), and/or stimulates learning (Demerouti, Bakker, Nachreiner, & Schaufeli, 2001). Utilizing the moderating aspect of job resources found in JD-R theory (e.g., Bakker & Demerouti, 2007), cross-functional cooperation is expected to reduce the negative effects of customer purchase complexity and market dynamism on sales force morale. Hence,

H5. Sales unit's cross-functional cooperation weakens the negative effect of (a) customer purchase complexity and (b) market dynamism

on sales force morale.

2.3.2. Key outcomes of sales force morale

As previously mentioned, sales force morale is a “good attribute,” in that higher levels of it are expected to lead to decreases in turnover, and increases in productivity. Next, we define these two key outcomes and introduce our final set of hypotheses.

Sales force turnover. Sales force turnover is the ratio of the total sales force that has voluntarily left the firm at the end of a given time period, compared to the total sales force at the beginning of the time period. Given that the study of morale at the sales force level is new, we draw from prior work from the management domain that provides evidence on the effect of morale on firm-level employee turnover. Specifically, in a meta-analysis, for instance, morale was found to have a negative relationship with turnover intentions (Chang, Rosen, & Levy, 2009). In a different review of organizational turnover antecedents (Hausknecht & Trevor, 2011), job satisfaction and organizational commitment (i.e., dimensions of morale) were also found to be negatively related to firm-level turnover. The conceptual logic linking firm-level morale to firm-level draws from prior work, which examines the influence of collective attitudes on firm-level outcomes (e.g., Chan, 1998). Specifically, because morale reflects a collective sense of enjoyment with and attachment to the firm, salespeople develop shared expectations about strong ties and a greater sense of community, belonging, support, and cooperation (Hausknecht, Hiller, & Vance, 2008). Collectively, these mechanisms are viewed by salespeople as important resources that salespeople desire to retain by sticking with the current firm. Accordingly, we propose that sales force morale will have a negative relationship with sales force turnover. Hence,

H6. Sales force morale has a negative relationship with sales force turnover.

Sales force productivity. In keeping with recent work in management (Kim & Ployhart, 2014), we define sales force productivity as the efficiency of a firm's sales force to produce outputs and efficiently deploy sales force human capital resources. The positive nature of productivity is inherent in the outcomes (e.g., increased revenues, profits, etc.) that are compared to efficiency (e.g., fewer employees, lower costs, etc.) to provide a measure of performance per worker. In essence, then, higher output from fewer salespeople reflects higher productivity.

Prior work pinpoints that satisfied work units will set norms and routines for higher productivity, and enforce these norms and routines within the unit (e.g., Whitman, Van Rooy, & Viswesvaran, 2010). In particular, members of a unit that share positive feelings regarding their firm will tend to cooperate with mutual trust, resolve conflicts more efficiently, and work better together to achieve the shared organizational goals (Ostroff, 1992). We align our predictions with these findings and expect that in firms exhibiting higher levels of morale, as reflected in higher feelings of satisfaction and commitment, the sales force will perform at higher levels. Hence,

H7. Sales force morale has a positive relationship with sales force productivity.

3. Methods

3.1. Sample and data collection

Our research design involves a three-stage data collection that took place over two time periods (i.e., year₁ and year₂) and merged three different sources: managers, salespeople, and secondary objective data.

Consequently, our research design alleviates concerns over common method bias and endogeneity as a result of simultaneity, because it involves data from three different sources as well as temporal separation of construct measurement over two time periods.

In the first stage, which took place in January–February of year₁, we solicited participation from 442 firms in the pharmaceutical, food & beverage, and electrical equipment industries in one European Union country. We concentrated on industries (a) which were highly likely to be intrigued by a study of salesperson morale due to their sales force being an important component of firm strategy; (b) which should exhibit adequate variation on our key constructs; and (c) whose professional associations were willing to grant us access to their rosters of member firms. One hundred and thirty-four (134) senior managers agreed to participate for a response rate of 30%. One of the authors scheduled face-to-face meetings with the participating managers at the firms' premises. The goal of these meetings was dual. First, we needed to establish rapport with participants to ensure that they will not only promote the study to their salespeople but also that they will participate again in a brief survey at year₂. We thus spend time explaining the objectives and the stages of our research design to managers. Second, we needed to secure reliable measurement of study constructs given that responding to key questions required that managers contact executives in other functional units (e.g., human resources) in order to obtain these figures (e.g., number of full-time salespeople that had voluntarily left the firm). Accordingly, we handed the survey off to managers and walked them through in order to eliminate any ambiguities and to highlight the survey questions that would likely require input from other executives in the organization. Next, we asked managers to fill the survey out at a different time when the author was not present and to mail it back to the researchers. Managers provided responses regarding market demands and job resources as well as other key metrics related to their B2B sales force¹ (see Table 2). Given the informants' high hierarchical position and long tenure in our study (see Appendix A), responses are gauged to be reliable (Homburg, Klarmann, Reimann, & Schilke, 2012).

In the second stage, at the end of February of year₁, managers distributed a research packet to all members of their B2B sales force (3285 in total). The packet contained a copy of the salesperson survey (which captured responses related to sales force morale), a cover letter signed by the leading author that explained the purposes of the survey and assuring anonymity of responses, as well as a pre-stamped envelope, which salespeople used to mail their responses directly back to the University, where the leading author was employed at the time of the study. To maximize response rates, we asked participating managers to send two follow-up emails to their salespeople. We received 878 useful salesperson responses over a period of eight weeks for a 27% response rate across firms. On average, the salesperson response rate from each participating firm was 52%, thus satisfying the criterion that has been set forth in the literature for aggregating responses to the firm level (Wright et al., 2001). To assess any potential nonresponse bias, we compared early (i.e., those responding before the first reminder) and late (i.e., those responding after the second reminder) respondents for all study variables. No statistically significant differences were detected ($p > .05$).

In the third stage, in the beginning of December of year₂, we communicated with managers (that had participated in year₁'s survey) and asked them to answer questions regarding sales force turnover during the period of the study. Because of firm/manager attrition or non-response, we were able to obtain answers from ninety-four (94) managers. Specifically, eight firms were merged/acquired; fifteen managers left their firms during the two-year study period; and seventeen

¹ Consistent with the objectives of our study, managers were explicitly instructed to respond to survey questions only for the B2B salespeople employed by their firms rather than for frontline employees, in general.

Table 2

Study measures.

Manager-reported measures (at year ₁)
<i>Customer purchase complexity</i> : reflective measure; CR = 0.76; AVE = 0.45; 5-point scale (strongly disagree, strongly agree)
<i>The following statements refer to how customers in your market make purchase decisions. Please indicate the extent to which you agree with each of the following:</i>
The purchase decision regarding goods/services in our market is made quickly (RS). (0.58)
Our customers need a lot of information before making a purchase decision regarding goods/services in our market. (0.64)
Our customers consider the purchase decision regarding goods/services in our market to be routine (RS). (0.78)
Our customers have routinized the purchase decision involving goods/services in our market so that it no longer requires a lot of attention (RS). (0.66)
<i>Market dynamism</i> : formative index; 5-point scale (very low frequency, very high frequency)
<i>Please indicate how frequently the following aspects change in your market:</i>
Goods/services offered by competition. (NA)
Customer needs. (NA)
Product technology. (NA)
<i>Sales capabilities training</i> : reflective measure; CR = 0.85; AVE = 0.54; 7-point scale (to no extent, to a great extent)
<i>To what extent does your sales unit offer systematic training programs to your salespeople in each of the following areas?</i>
Interpersonal communication capabilities. (0.66)
Understanding customer needs. (0.82)
Understanding company policies/procedures. (0.72)
Employing effective sales techniques. (0.89)
Using sales technologies. (0.52)
<i>Firm's product portfolio depth</i> : manifest measure; 5-point scale (strongly disagree, strongly agree)
<i>Please indicate the extent to which you agree with the following statement regarding the product lines your salespeople promote:</i>
Our salespeople promote product lines comprising a large number of product variants each. (NA)
<i>Sales unit's cross-functional cooperation</i> : formative index; 5-point scale (to no extent, to a great extent)
<i>Please indicate the extent to which the sales unit in your company cooperates with each of the following units. In this company, the sales unit:</i>
Fully cooperates with R&D in establishing goals and priorities for our strategies. (NA)
Fully cooperates with Marketing in establishing goals and priorities for our strategies. (NA)
<i>Number of salespeople employed</i> : manifest measure
For the current year, how many full-time salespeople are employed in your sales unit? (NA)
<i>Firm's customer portfolio size</i> : manifest measure
Approximately how many active customers does your sales unit currently serve? (NA)
<i>Percentage of salary in sales compensation</i> : manifest measure
What is the percentage (%) of fixed salary in your salespeople's total annual compensation? (NA)
<i>Sales force team orientation</i> : reflective measure; CR = 0.76; AVE = 0.52; 10-point scale (to no extent, to a great extent)
<i>The following statements refer to how your salespeople function as members of a team in your sales unit. Please indicate the extent to which your salespeople:</i>
Are willing to accept direction from their sales manager. (0.85)
Cooperate as part of a sales team. (0.67)
Accept the authority of their sales manager. (0.62)
<i>Sales territory design effectiveness</i> : reflective measure; CR = 0.83; AVE = 0.50; 7-point scale (completely ineffective, completely effective)
<i>The following statements refer to aspects of sales territory design in your sales unit. Please indicate how effective your sales unit is on each of the following aspects:</i>
The geographical size of our sales territories. (0.67)
The number of calls made in our sales territories. (0.69)
The amount of travel required in our sales territories. (0.74)
The assignment of salespeople to our sales territories. (0.63)
The overall design of our sales territories. (0.80)
<i>Salesperson-reported measures (at year₁)</i>
<i>Sales Force Morale</i> : second-order reflective measure; CR = 0.86; AVE = 0.68; 5-point scale (strongly disagree, strongly agree)

Table 2 (continued)

Manager-reported measures (at year ₁)
<i>The following statements refer to how you feel about your job and the company you're currently employed. Please indicate the extent to which you agree with each of the following:</i>
<i>Affective Organizational Commitment (0.90)^a</i>
I talk up this company to my friends as a great organization to work for. (0.67)
I find that my values and the company's values are very similar. (0.67)
I am proud to tell others that I am part of this company. (0.79)
This company really inspires the best in me in the way of job performance. (0.78)
I am extremely glad I chose this company to work for over others I was considering at the time I joined. (0.77)
I really care about the fate of this company. (0.54)
For me, this is the best of all companies for which to work. (0.75)
<i>Satisfaction with the job (0.71)^a</i>
My work gives a sense of accomplishment. (0.68)
My job is exciting. (0.74)
My work is satisfying. (0.84)
I'm really doing something worthwhile in my job. (0.84)
<i>Satisfaction with company policy & procedures (0.85)^a</i>
Management is progressive. (0.83)
Top management really knows its job. (0.83)
This company operates efficiently and smoothly. (0.84)
Salespeople in company receive good support from the home office. (0.69)
<i>Manager-reported measures (at year₂)</i>
<i>Sales force turnover</i> : manifest measure
As of the present time, how many of your full-time salespeople, who were employed in your sales unit last year, have voluntarily left the sales unit?
<i>Number of salespeople employed</i> : manifest measure
For the current year, how many full-time salespeople are employed in your sales unit?
<i>Secondary, objective measures (at year₂)</i>
<i>Sales force productivity</i> : manifest measure
Firm operating revenues (€)

^a Second-order standardized loadings. RS = reverse scaled. NA = not applicable for manifest/formative measures.

managers didn't respond to the year₂ survey. Next, we collected secondary, objective data on year₂ operating revenues for eighty-one (81) firms that participated in the year₂ manager survey.² It is this group of 81 firms that constitutes the sample on which our hypothesis testing analyses are based.

4. Measures

We drew measures for our constructs from existing scales, where available (Table 2). To make sure there are no wording or ambiguity issues with the items, year₁ surveys were pretested with a sample of 6 managers and 17 salespeople before administering them to the target population. Surveys were administered in the local language after a back-translation procedure performed by one professional translator and the leading author.

Manager-reported measures (year₁). Customer purchase complexity was measured with four reflective items designed to capture the three dimensions of a complex purchase, as delineated in the work of Anderson, Chu, and Weitz (1987): long purchase cycles, high information needs, and high degree of newness of problem. Consistent with Homburg, Martin, and Wieseke (2012), market dynamism was operationalized as a formative index with three items covering the frequency of changes in competition, customer needs,

² We collected operating revenues for 81 out of the 94 firms that participated in the year₂ survey because we could not obtain secondary financial data for 13 firms. This is because public disclosure requirements for private firms is less comprehensive in Europe than in the United States (see Homburg, Jensen, & Hahn, 2012 for a discussion on these differences). Also, we made sure that secondary, objective data on year₂'s operating revenues match the corresponding fiscal year for each of these 81 firms.

and product technology. Sales capabilities training is a new reflective measure developed on the basis of prior work (Kumar, Sunder, & Leone, 2014). It captures the extent to which firms systematically offer training interventions directed toward improving the sales force's task-related knowledge, skills, and abilities in five critical areas. Firm's product portfolio depth is a single-item measure developed on the basis of the work of Sorescu, Chandy, and Prabhu (2003) and is designed to capture the extent to which firms carry product lines comprising a large number of product variants. We measured sales unit's cross-functional cooperation with two formative items, which are inspired and adapted from the work of De Luca and Atuahene-Gima (2007) to fit the context of our study. The measure captures the extent to which the sales unit cooperates with marketing and R&D; thus, because a sales unit may cooperate well with marketing but not necessarily with R&D, we treat the two items as formative. We measured the number of full-time salespeople employed in the sales unit at year₁ with a single item; we use this measure to calculate sales force turnover at year₂ (discussed subsequently). Finally, managers reported on the percentage (%) of fixed salary in the sales force's total compensation and the size of the firm's customer portfolio; we employ these two measures as covariates in our hypotheses testing procedure in order to capture any unobservable effects of type of compensation and sales opportunity on sales force turnover and productivity, respectively. Doing so is aligned with prior work, which has shown that sales force compensation or a larger sales territory are both related to sales force outcomes (e.g., Cravens, Ingram, LaForge, & Young, 1993).

Salesperson-reported measures (year₁). Consistent with prior work (e.g., Chang, Rosen, & Levy, 2009; Harrison, Newman, & Roth, 2006 and Rosen, Levy, & Hall, 2006), sales force morale was measured as a second-order reflective construct with three first-order reflective dimensions. Affective organizational commitment was measured with seven items drawn from Mowday, Porter, and Steers (1979). Satisfaction with the job and satisfaction with company policies/procedures were measured with four items each (Comer, Machleit, & Lagace, 1989).

Manager-reported measures (year₂). We operationalized sales force turnover as the percentage of salespeople that have voluntarily left the firm at year₂. Specifically, at year₂, we asked managers to report the number of full-time salespeople – who were employed in their sales unit at year₁ – that voluntarily left the firm at year₂. Next, we used this measure, together with the measure of the number of full-time salespeople employed in the sales unit at year₁, to calculate sales force turnover at year₂ as follows:

$$\text{Sales Force Turnover } (\%)_{\text{YEAR2}} = \frac{\text{\#of full – time salespeople employed at year1 that have voluntarily left the firm at year2}}{\text{\#of full – time salespeople employed at year1}} \times 100 \quad (1)$$

In addition, we asked managers to report the number of full-time salespeople employed in their sales unit at year₂; we employ this measure to calculate sales force productivity.

Secondary, objective data (year₂). In keeping with recent work on firm productivity (Kim & Ployhart, 2014), we operationalize sales force productivity as the ratio of firm operating revenues to total number of full-time salespeople employed in the fiscal year following survey data collection (year₂). This productivity measure is essentially an indicator of total output to sales labor input and it thus captures the efficiency of the sales force to produce output (Kim & Ployhart, 2014). Furthermore, operating revenue is relevant in a sales force context given that it refers to sales generated from a company's day-to-day selling activities for which salespeople are primarily responsible. Indeed, operating revenues has been employed in prior sales research (e.g., Homburg, Jensen, & Krohmer,

2008). Secondary data on firm operating revenues come from Kantar TNS, a market research firm, which specializes in collecting firm financial data in this European Union country. As mentioned previously, data on the number of full-time salespeople employed in the sales unit at year₂ come from the manager survey at year₂. We calculate sales force productivity at year₂ as follows:

$$\text{Sales Force Productivity}_{\text{YEAR2}} = \frac{\text{Firm operating revenues (€)}_{\text{YEAR2}}}{\text{\#of full – time salespeople employed}_{\text{YEAR2}}} \quad (2)$$

4.1. Measure assessment

We assessed the factor structure and validity of our reflective constructs through confirmatory factor analysis (CFA) in LISREL 8.80. The model for sales force morale in the full salesperson sample at year₁ ($n = 878$) demonstrated good fit to the data: $\chi_{88}^2 = 337.35$ ($p < .01$); RMSEA = 0.06 (90% confidence interval for RMSEA: 0.05; 0.06); NFI = 0.98; NNFI = 0.98; CFI = 0.99; SRMR = 0.04. Further, the results support the second-order structure of morale, thus providing empirical evidence for the aggregation of morale's first order-factors into a second-order construct. Given these favorable results, consistent with prior work in the area (Chang, Rosen, & Levy, 2009; Rosen, Levy, & Hall, 2006), we employ the second-order construct of sales force morale in our subsequent hypotheses testing. The average variance extracted (AVE) was larger than 0.50 thus demonstrating convergent validity, whereas construct composite reliability was greater than the 0.70 cut-off, thus offering support for its reliability (Table 2). All factor loadings were significant, with the lowest standardized loading equal to 0.54 (t -value = 14.45, $p < .01$). The results suggest that significant systematic variance in the individual indicators can be attributed to the underlying latent construct, thereby providing empirical support for the second-order reflective structure of our sales force morale scale.

Model specification for our full manager sample at year₁ ($n = 134$) included four multi-item reflective measures captured at year₁ (customer purchase complexity, sales capabilities training, sales force team orientation, and territory design effectiveness; see Table 2). The latter two measures are employed to examine any potential selection bias in our results (discussed subsequently). Results showed good fit: $\chi_{113}^2 = 136.81$ ($p < .06$); RMSEA = 0.04 (90% confidence interval for RMSEA: 0.00; 0.06); NFI = 0.88; NNFI = 0.96; CFI = 0.97 SRMR = 0.06. Convergent validity was established because AVEs are greater than or very close to the cut-off value of 0.50 (Table 2). Discriminant validity was indicated by the AVE for each construct being substantially higher than its shared variance with any of the other constructs (see Tables 2 and 3). In addition, all factor loadings were significant, with the lowest standardized loading equal to 0.52 (t -value = 5.41 $p < .01$). Finally, all constructs show adequate levels of reliability since their composite reliabilities fall above the cutoff of 0.70.

4.2. Data aggregation & merging

According to our conceptual model, all constructs, including sales force morale, reside at the firm-level (Figs. 1 and 2). Taking a firm-level approach in our analyses is consistent with prior employee morale research (e.g., Subramony, Krause, Norton, & Burns, 2008) and a direct consensus model in multilevel theory (Chan, 1998). Thus, in order to aggregate individual assessments of morale to the firm-level, we needed to assess whether sufficient agreement existed among sales force members of each sales unit. To this end, we calculated the intraclass correlation ($ICC_{[1]}$) for firms that returned at least 3 salesperson responses (852 salespeople in 97 firms). The $ICC_{[1]}$ score was 0.23, exceeding the recommended cutoff for justifying aggregation (Bliese, 2000). We use this aggregated, firm-level measure of sales force morale

Table 3
Descriptive statistics and construct intercorrelations^{a, b}.

Measures	M	SD	1	2	3	4	5	6	7	8	9
1. MORALE _{YEAR1} ^c	3.94	0.32									
2. CAPTRAIN _{YEAR1} ^d	4.87	1.32	0.15								
3. PPDEPTH _{YEAR1} ^{d,f}	3.36	1.32	0.10	0.35**							
4. CROSSF _{YEAR1} ^d	2.83	0.85	-0.21	0.15	0.12						
5. PCOMPLEX _{YEAR1} ^d	3.65	0.86	-0.34**	-0.02	0.24*	0.04					
6. MDYNAM _{YEAR1} ^d	2.45	0.71	-0.32**	0.02	-0.08	0.45**	0.16				
7. TURNOVER(% _{YEAR2}) ^{d,f}	7.00	8.00	-0.18	-0.07	0.01	0.08	0.02	0.04			
8. PRODUCTIVITY(€ _{YEAR2}) ^{e,f}	337,699.96	373,830.84	0.18	0.22*	0.02	0.13	0.04	-0.01	-0.22		
9. SALARY(% _{YEAR1}) ^{d,f}	70.98	19.81	-0.16	0.09	-0.02	-0.10	0.13	0.03	-0.13	0.30**	
10. FCPS _{YEAR1} ^{d,f}	5723.83	8250.88	0.16	0.17	0.03	0.01	-0.08	-0.03	-0.02	-0.04	-0.29**

PCOMPLEX = customer purchase complexity; MORALE = sales force morale; MDYNAM = market dynamism; CAPTRAIN = sales capabilities training; PPDEPTH = firm's product portfolio depth; CROSSF = sales unit's cross-functional cooperation; TURNOVER = sales force turnover; SALARY = percentage of salary in salesperson total compensation; FCPS = firm's customer portfolio size; PRODUCTIVITY = sales force productivity.

* $p < .05$, two-tailed.

** $p < .01$, two-tailed.

^a Pearson correlations based on standardized latent variable scores generated by the PLS algorithm.

^b Salesperson responses are aggregated to the firm level ($n = 81$).

^c Salesperson-reported data.

^d Manager-reported data.

^e Secondary, objective data.

^f Manifest constructs measured with a single item.

in subsequent hypothesis testing.

Next, we created a firm-level file that matched together (a) the salesperson-reported, aggregated sales force morale data at year₁; (b) managers' responses on market demands and job resources at year₁; (c) manager's reports of sales force turnover at year₂; and (d) sales force productivity data at year₂. For a firm to be included into this file, it had to meet the following three criteria. First, a firm had to have returned at least 3 salesperson surveys. As mentioned previously, we consider only the 97 firms that met this criterion (i.e., 852 salespeople in 97 firms). Second, a firm had to have participated to both year₁ and year₂ manager surveys. The number of firms that met this criterion was 94. Third, secondary, objective sales force productivity information had to be publicly available. We were able to identify objective information for 81 firms.

Against this backdrop, our final sample size employed in hypothesis testing is based on merged data from three sources (manager, salesperson, and secondary) and refers to 81 firms that met all three criteria: (a) firms that returned at least 3 salesperson surveys at year₁ (528 salespeople, in total); (b) firms whose managers participated at both year₁ and year₂ survey; and (c) firms for which secondary, objective information at year₂ was available.

4.3. Model specification

Given the complexity of our model (containing multiple interaction terms and formative indexes) against sample size, we employ a partial least squares (PLS) approach with SmartPLS 2.0 to test hypotheses. PLS can accommodate complex model specifications, such as nonlinear effects, which are very difficult to be modeled with a covariance-based approach (Bagozzi & Yi, 2012). We employ a hierarchical model approach. We first fit Model 1 to test main-effect hypotheses (H_1 , H_2 , H_6 and H_7). We then estimate Model 2 that includes direct effects of moderators. Finally, we fit Model 3 to test hypothesized interactions (H_{3a-b} , H_{4a-b} and H_{5a-b}). Table 4 presents the results of our analysis.

5. Results

In regards to the hypothesized main effects (Model 1), results show that customer purchase complexity_{year1} exerts a negative effect on sales force morale_{year1} ($\gamma = -0.292$, $p < .01$) in support of H_1 . Likewise, H_2 , which predicts a negative effect of market dynamism_{year1} on sales

force morale_{year1} is confirmed ($\gamma = -0.275$, $p < .01$). As predicted in H_6 , sales force morale_{year1} negatively influences sales force turnover_{year2} ($\beta = -0.200$, $p < .05$). Also, consistent with our predictions in H_7 , sales force morale_{year1} positively influences sales force productivity_{year2} ($\beta = 0.231$, $p < .05$). Although not formally hypothesized, Model 2 reports the main effects of the moderating variables. Specifically, we find that sales capabilities training_{year1} is positively related to sales force morale_{year1} ($\gamma = 0.125$, $p < .05$), sales unit's cross-functional cooperation_{year1} is negatively related to sales force morale_{year1} ($\gamma = -0.146$, $p < .05$), whereas a firm's product portfolio depth_{year1} is not related to sales force morale_{year1} ($\gamma = 0.136$, $p > .10$).

Turning our attention to the hypothesized interactions (Model 3), results show that, consistent with H_{3a} and H_{3b} , sales capabilities training_{year1} weakens the negative effects of customer purchase complexity_{year1} ($\gamma = -0.216$, $p < .05$) and market dynamism_{year1} ($\gamma = -0.241$, $p < .01$) on sales force morale_{year1}. In other words, we find that customer purchase complexity's and market dynamism's negative effects on morale are weakened when firms offer higher levels of sales capabilities training.

However, in contrast to our predictions in H_{4a} and H_{4b} , the moderating effects of a firm's product portfolio depth_{year1} on the relationship of customer purchase complexity_{year1} ($\gamma = 0.235$, $p < .01$) and market dynamism_{year1} ($\gamma = 0.144$, $p < .05$) with sales force morale_{year1} are positive. Thus, we find that the negative effects of customer purchase complexity and market dynamism on morale are amplified, rather than weakened, when firms offer a deeper product portfolio.

Finally, H_{5a} receives support since the moderating effect of sales unit's cross-functional cooperation on the relationship between customer purchase complexity_{year1} and sales force morale_{year1} is negative ($\gamma = -0.284$, $p < .01$). This finding implies that when sales units enjoy higher levels of cooperation with marketing and R&D functions, the negative effect of purchase complexity is weakened. However, the hypothesized interaction between sales unit's cross-functional cooperation_{year1} and market dynamism_{year1} on sales force morale_{year1} is not supported ($\gamma = -0.131$, $p > .05$); thus, H_{5b} is not confirmed.

Beyond testing our hypothesized moderating effects for statistical significance, we also wanted to examine their practical significance. Since Model 1 is nested within Model 3, we tested whether the two models differ significantly in terms of explained variance. Specifically, we compared the proportion of variance explained in sales force morale by the main effects model ($R_1^2 = 0.187$) with that of the hypothesized

Table 4
Results of structural equation analyses^{a,b,c}.

Paths	Main effects & covariates (Model 1)	Direct effects of moderators (Model 2)	Hypothesized interactions (Model 3)	Non-hypothesized quadratics (Model 4)
<i>Endogenous variable: Sales Force Morale_{YEAR1}</i>				
	R ² = 18.7%	R ² = 23.7%	R ² = 43.8%	R ² = 44.2%
PCOMPLEX _{YEAR1} → MORALE _{YEAR1}	-0.292**	-0.329**	-0.194*	-0.191*
MDYNAM _{YEAR1} → MORALE _{YEAR1}	-0.275**	-0.195**	-0.203**	-0.182*
CAPTRAIN _{YEAR1} → MORALE _{YEAR1}	-	0.125*	0.108	0.106
PPDEPTH _{YEAR1} → MORALE _{YEAR1}	-	0.136	0.211**	0.245*
CROSSF _{YEAR1} → MORALE _{YEAR1}	-	-0.146*	-0.085	-0.088
PPDEPTH _{YEAR1} ² → MORALE _{YEAR1}	-	-	-	0.049
PCOMPLEX _{YEAR1} × CAPTRAIN _{YEAR1} → MORALE _{YEAR1}	-	-	-0.216*	-0.226*
PCOMPLEX _{YEAR1} × PPDEPTH _{YEAR1} → MORALE _{YEAR1}	-	-	0.235**	0.223*
PCOMPLEX _{YEAR1} × CROSSF _{YEAR1} → MORALE _{YEAR1}	-	-	-0.284**	-0.292**
PCOMPLEX _{YEAR1} × PPDEPTH _{YEAR1} ² → MORALE _{YEAR1}	-	-	-	-0.050
MDYNAM _{YEAR1} × CAPTRAIN _{YEAR1} → MORALE _{YEAR1}	-	-	-0.241**	-0.234*
MDYNAM _{YEAR1} × PPDEPTH _{YEAR1} → MORALE _{YEAR1}	-	-	0.144*	0.149*
MDYNAM _{YEAR1} × CROSSF _{YEAR1} → MORALE _{YEAR1}	-	-	-0.131	-0.124
MDYNAM _{YEAR1} × PPDEPTH _{YEAR1} ² → MORALE _{YEAR1}	-	-	-	0.020
<i>Endogenous variable: Sales Force Turnover_{YEAR2}</i>				
	R ² = 5.9%	R ² = 5.9%	R ² = 5.9%	R ² = 5.9%
MORALE _{YEAR1} → TURNOVER _{YEAR2}	-0.200*	-0.200*	-0.200*	-0.200*
SALARY _{YEAR1} → TURNOVER _{YEAR2}	-0.172*	-0.172*	-0.172*	-0.172*
FCPS _{YEAR1} → TURNOVER _{YEAR2}	-0.041	-0.041	-0.041	-0.041
<i>Endogenous variable: Sales Force Productivity_{YEAR2}</i>				
	R ² = 14.1%	R ² = 14.1%	R ² = 14.1%	R ² = 14.1%
MORALE _{YEAR1} → PRODUCTIVITY _{YEAR2}	0.231*	0.231*	0.231*	0.231*
SALARY _{YEAR1} → PRODUCTIVITY _{YEAR2}	0.339**	0.339**	0.339**	0.339**
FCPS _{YEAR1} → PRODUCTIVITY _{YEAR2}	0.027	0.027	0.027	0.027

Note: T-values are calculated from 1000 bootstrapped samples and are for one-tailed test for all directional hypotheses; Critical values: 1.65 ($p < .05$), 2.33 ($p < .01$). $N = 81$ firms. PCOMPLEX = customer purchase complexity; MORALE = sales force morale; MDYNAM = market dynamism; CAPTRAIN = sales capabilities training; PPDEPTH = firm's product portfolio depth; CROSSF = sales unit's cross-functional cooperation; TURNOVER = sales force turnover; SALARY = percentage of salary in salesperson total compensation; FCPS = firm's customer portfolio size; PRODUCTIVITY = sales force productivity.

* $p < .05$.

** $p < .01$.

^a Entries within each cell correspond to standardized path estimates.

^b Explained variance (R^2) indicates good explanatory power of the proposed model.

^c Stone-Geisser (Q^2) cross-validated redundancy values, yielded from a blindfolding procedure ($d = 7$), are 0.082, 0.054, and 0.079 for sales force morale, sales force turnover, and sales force productivity respectively; these values show that the model exhibits good predictive relevance.

interactions model ($R_2^2 = 0.438$). The results reveal an effect size (f^2) of 0.45. The differences in explained variance between the two models represent strong effect sizes for the hypothesized moderating effects.

Finally, regarding the effects of covariates, we find that the percentage of salary in total sales force compensation influences both sales force turnover ($\gamma = -0.172, p < .05$) and sales force productivity ($\gamma = 0.339, p < .01$). However, a firm's customer portfolio size was not found to influence neither sales force turnover ($\gamma = -0.041, p > .05$) nor productivity ($\gamma = 0.027, p > .05$).

5.1. Robustness checks

We assessed the extent to which our results are robust against (a) multicollinearity; (b) sample selection bias; and (c) higher-order quadratic effects. First, we computed the inflation factors (VIFs) for each predictor. The maximum VIF is 1.497, well below the threshold value of 10 (Hair, Black, Babin, & Anderson, 2010), thus indicating no multicollinearity issues.

Second, as mentioned previously, our analysis is based on a subsample of the firms that responded to our surveys and that met the three inclusion criteria (see Data Aggregation & Merging section). This non-random selection process, however, might lead to biased parameter estimates if excluded firms are different than included firms. To explore this issue, we adopted Heckman's (1979) selection model. Specifically, we estimated three probit selection models with the binary dependent variable in each model capturing whether a firm met the specific criterion or not. Following Wooldridge (2009), we included the same set of variables used in hypotheses testing in each model, as well as two additional variables obtained from the manager survey at year₁ as predictors in this firm-level model (for details and results see Appendix

B). Specifically, we employed a three-item measure of sales force team orientation (Cravens, Ingram, LaForge, & Young, 1993) and a five-item measure of territory design effectiveness (Grant, Cravens, Low, & Moncrief, 2001) (see Table 2 for items). None of the probit models were significant ($p > .10$). Consequently, concerns over any effects of unobserved firm characteristics related to the selection process that might have biased our parameter estimates are alleviated.

Third, we empirically explored whether a firm's product portfolio depth_{year1} might be having a quadratic interaction (i.e., a non-linear moderating effect) with customer purchase complexity_{year1} and market dynamism_{year1} on sales force morale_{year1}.³ Specifically, we estimated Model 4 (see Table 4), which is identical to the hypothesized Model 3, but also contains the non-hypothesized quadratic term of a firm's product portfolio depth_{year1}, as well as the interactions between the quadratic term of a firm's product portfolio depth_{year1} with both our predictors (i.e., customer purchase complexity_{year1} and market dynamism_{year1}). The results indicate that neither the quadratic interaction of a firm's product portfolio depth_{year1} with purchase complexity_{year1} ($\gamma = -0.050, p > .05$) nor the quadratic interaction of a firm's product portfolio depth_{year1} with market dynamism_{year1} ($\gamma = 0.020, p > .05$) is significant thereby strengthening confidence in our hypothesized linear interactions (i.e., H_{4a} and H_{4b}).

6. Discussion

Despite that the morale of an organization's sales force can have a substantial impact on salesperson performance (Martin, 2015) as well

³ We would like to thank an anonymous Reviewer for suggesting this set of analysis.

as the high level of interest from managers in improving morale, three important research questions/gaps remain: (1) What market demands negatively impact sales force morale? (2) What resources can an organization leverage to buffer the negative effects market demands have on sales force morale? and (3) What impact does sales force morale have on key organizational outcome measures? Our study addresses these questions/gaps and contributes to theory and managerial practice in the following ways:

6.1. Theoretical implications

Overall, our research contributes to the JD-R literature by applying JD-R to a study of organizational level topics. The current research specifically answers a very recent call of Bakker and Demerouti (2018) stated as “we suggest in JD-R theory that well-being and performance are the outcomes of factors at the individual (job function) level but also at the team or even the organizational level. Several studies have provided evidence for such a claim. However, the empirical evidence is still scarce and scattered. We need more empirical evidence regarding whether a factor at the organizational level consistently acts as buffer or exacerbates...well-being” (p. 8). Interestingly, our findings in a sales setting largely support the foundational tenets of JD-R. Yet, as indicated by Bakker and Demerouti (2018) we discover that, indeed, resources can buffer and exacerbate organizational job demands (discussed subsequently in more detail). This finding represents a difference in how job resources have operated in previous research at the individual-level. In addition, our research also adds in more specific ways, described in the following sections.

First, despite the unique and direct impact sales forces have on organizations' performance and the impact morale has on salesperson performance (Martin, 2015), it is surprising that prior theoretical work has not examined sales force morale and its antecedents. Our study fills this void by conceptualizing sales force morale as an organizational-level phenomenon and testing how market factors affect sales force morale. Utilizing a unique dataset comprising three different data sources collected in two time periods, we provide theoretical and empirical support that sales force morale is a higher-order construct that, though originating at the individual salesperson level, manifests at the organizational level, consistent with the logic of compositional multi-level models (Chan, 1998). Furthermore, taking a JD-R perspective, we select and evaluate how *customer purchase complexity* and *market dynamism* can hurt sales force morale, as it is often contemplated, but not empirically tested, in prior work (e.g., Zoltners, Sinha, & Lorimer, 2008). We show that both conditions can indeed lower sales force morale and thus lead to less positive feelings toward the organization and the work environment. As such, highly complex and dynamic markets can actually hurt key sales force outcomes by lowering sales force morale.

Second, we contribute to knowledge on how organizational level resources can buffer the negative effects of markets demands on sales force morale. Specifically, we address how and to what extent (a) sales capabilities training; (b) firm's product portfolio depth; and (c) sales unit's cross-functional cooperation can mitigate the negative effects of demanding conditions on sales force morale. Our results indicate that offering training that improves sales force capabilities acts as a buffering job resource in that salespeople are better able to cope with the demands of a complex and dynamic market and thus mitigate the lowering of their morale. This finding is notable and suggests that offering training interventions equips the sales force with the necessary knowledge, skills, and abilities that allow them to find new and novel ways for addressing the challenges in their work. For example, when confronted with constantly changing customer preferences, capable salespeople can utilize sales technology to quickly configure new solutions that can satisfy customers' emergent needs.

Our results also reveal that a cooperative relationship between the sales unit and functions such as marketing and R&D can mitigate the

negative influence of customer purchase complexity on sales force morale. We feel that this buffering effect is the result of sales working harmonically with functions that play a critical role in the development of a deep understanding of customer needs or in the deployment of customer solutions. This means that cross-functional competition for time and resources is avoided, thereby allowing salespeople to minimize the personal costs associated with searching for solutions or gaining a deep understanding of customer needs. We also find that, though in the hypothesized direction (i.e., negative), the interaction between cross-functional cooperation and market dynamism is not significant. Therefore, while cross-functional cooperation between sales and other functions is instrumental for dealing with complexity in the purchasing process, the same is not true when dealing with highly dynamic markets. We feel that this organizational-level finding illustrates that change may be faster than firms can respond at a higher (i.e., organizational) level. We suspect that this interaction would produce different results at the team- or individual- level, as the levels closer to the market can be more nimble in response to change. Alternatively, it could be the case that the level of uncertainty and uncontrollability implied by market dynamism requires more drastic resources than just cross-functional cooperation to be put in place in order for the sales force to cope with this type of environment. This conjecture is in line with recent work (Rouziès & Hulland, 2014) suggesting that cooperation between sales and marketing in the presence of powerful customers may actually “stifle innovation and inhibit rapid responses to changing market conditions because managers cannot access knowledge necessary to identify market opportunities” (p. 522) Overall, this finding, which deserves further empirical testing, speaks to the fact that one resource does not fit all environmental contexts and that there may be other resources to be employed depending on the forces of the environment that are more salient for a given company (i.e., customer purchase complexity or market dynamism).

Our results regarding a firm's product portfolio depth are intriguing. Specifically, contrary to our predictions, we find that organization-level resources intended to assist the sales force achieve their goals can actually have unintended negative consequences. Specifically, the findings show that a deeper product portfolio magnifies the negative effects of a demanding selling context on sales force morale. While having a broad product offering can provide salespeople with more ways to meet customer needs, the increased requirements for learning about or building expertise with a prolific portfolio may be a daunting task, especially for salespeople that sell sophisticated products with high learning curves. As such, a deeper product portfolio may actually burden the sales force with higher customer expectations while diminishing their ability to be experts (Jones, Brown, Zoltners, & Weitz, 2005). Likewise, a deeper product portfolio implies a greater degree of heterogeneity in the attributes of products marketed, thereby increasing the complexity of product space that salespeople face (Lenk, DeSarbo, Green, & Young, 1996). It is thus possible that product complexity influences the search, evaluation, and opportunity costs associated with choosing the right configuration of products that best meet changing or complex customer needs (Barroso & Giarratana, 2013). Consequently, the increased cognitive effort, and possible information overload, due to greater product heterogeneity (Fernhaber & Patel, 2012) might amplify the demands already stemming from a turbulent environment, thus further lowering sales force morale. These results draw attention to the need for a better understanding of how job resources that are commonly assumed to offer an advantage, may, in fact, produce negative unintended consequences on sales force morale as these resources interact with forces of the external environment. We believe that these results offer novel insights and advance the application of JD-R theory in sales research by highlighting a less salient view in the extant literature – that is, adding more complexity on job resources can result in poorly implemented resources (Bakker & Demerouti, 2007). These results also raise an interesting question regarding what firms can do to strike a balance between the need to offer a deeper product

portfolio to strategically fend off competitive threats in turbulent markets and the ability of salespeople to deal with this increasing complexity. We address this intriguing question in the “Limitations and Future Research Directions” subsection.

Third, we contribute to the literature by showing that sales force morale significantly affects objective sales force productivity and turnover rates, which are captured a year after the administration of the survey measuring sales force morale. Managers are increasingly faced with highly demanding environments characterized, in part, by the complexity of customers' buying decision process and dramatically changing conditions in their markets (Ledingham, Kovac, & Simon, 2006). These conditions make it increasingly difficult for managers to implement strategies that will prevent salesperson turnover or increase sales productivity (Sunder, Kumar, Goreczny, & Maurer, 2017). While the extant literature offers important insights on how individual-level negative stressors, such as role ambiguity or burnout, can have detrimental effects for salesperson performance and turnover intentions (e.g., Behrman & Perreault, 1984; Singh, Goolsby, & Rhoads, 1994), we currently know very little about the role sales force morale has in influencing organizational-level outcomes. We bridge this gap and show that modeling sales force morale is capable of explaining 14.1% of the variance in sales force productivity and 5.9% of the variance in sales force turnover. Because our research design involves data from different sources captured with a temporal separation, our results cannot be explained by common method bias or endogeneity as a result of simultaneity. Also, because our model specification accounts for any potential selection bias our results cannot be explained by self-selection – based endogeneity.

Finally, in contrast to prior work in marketing, management, and psychology, our research addresses job demands and job resources at the organizational-level, as opposed to the individual level, by extending JD-R theory to organization level phenomenon. Specifically, we show that organizational level job resources and demands are predictive of collective attitudes (i.e. sales force morale) and outcomes (i.e. sales force productivity and turnover) at the organizational-level. These findings provide empirical support for yet unconfirmed theoretical discussions in the management literature (see Bakker & Demerouti, 2014). Thus, we offer a novel insight regarding the applicability of the JD-R perspective at the organizational-level that is useful not only to marketing but also to management scholars.

6.2. Managerial implications

Our study offers crucial insights for sales executives. First, we provide evidence that sales force morale can positively affect key outcomes in that it helps increase sales force productivity while lowering voluntary turnover rates. Specifically, we find that an increase of morale by one point on a 5-point scale improves sales force productivity by €226,834 of operating revenues per salesperson while it lowers turnover rate by 5%.⁴ These findings are particularly relevant for firms across industries that face challenges with high levels of turnover, such as software and medical device (Barton & Davis, 2016), or seek to improve sales force productivity. The fact that we use objective data as well as a time lag between measurements should lend confidence to managers when interpreting our findings.

Given these encouraging results, a second managerial implication of our study stems from the finding that sales force morale is a construct that pertains to the sales force's collective attitudes toward the organization. In particular, our study informs managers on the steps they might want to consider while measuring and monitoring morale. In particular, managers may want to focus on the dimensions of affective

organizational commitment, satisfaction with the job, and satisfaction with company policy and procedures when designing initiatives aimed at measuring morale. These dimensions, which can conveniently be measured with the items shown in Table 2, do not take up much additional space in an existing company survey, thus making it easy for firms to include them as part of their standard procedures for monitoring sales force behaviors and attitudes. In addition, these items were tested across a variety of firms in three industries that should make them applicable to a number of different contexts.

Third, regarding the role of market demands, we find that both customer purchase complexity and market dynamism lower sales force morale. Although managers have little, if any, influence on dimensions of the external environment (e.g., managers cannot completely purge complexity or dynamism that stem from technological advancements, continuously evolving customer needs, and competitive rivalry), they can, however, manage how salespeople deal with complexity and dynamism. Our research suggests that job resources, pertinent to the internal organizational environment, and thus under the control of the firm, can mitigate the negative effects of either purchase complexity or market dynamism. Specifically, training the sales force with a goal of improving their sales capabilities can weaken the negative impact of purchase complexity and market dynamism on morale. For instance, if a sales job entails high complexity and dynamism (e.g., working with customers that need a lot of information before making a purchase commitment or when customer needs change frequently), salespeople need to be trained in areas such as understanding customer needs or communicating effectively with customers to acquire the capabilities needed for mitigating the influence of complexity and dynamism.

In addition, salespeople working within a sales unit that enjoys a harmonious cooperation with R&D and marketing in establishing goals and priorities for firm strategies seem to be better able to deal with complex purchasing decisions. It is possible that in such purchasing situations salespeople are required to spend more time with the customer or even negotiate the customization of solutions internally with other functional units. As such, high levels of cross-functional cooperation with units such as R&D and marketing can serve a critical role in dealing with complexity. However, this beneficial effect of cross-functional cooperation was not supported in the case of market dynamism. It thus appears that managers may want to ensure that their unit has built a good relationship with other functions, especially when high levels of purchasing complexity characterize the environment.

Finally, our study shows that a firm's product portfolio depth can have unintended negative consequences for the sales force. We find when sales forces are tasked with promoting a deep product portfolio the negative effects that purchase complexity and market dynamism have on sales force morale are amplified. Perhaps this happens because a deep product portfolio implies product lines that comprise a large number of variants. This situation, however, entails that salespeople need to understand a lot of different products and their technical specifications. At the same time, because different products might be managed by product managers that can often have different or even competing goals, salespeople may experience a depletion of personal resources while trying to strike a balance between competing product lines. This situation, in turn, can make salespeople feel that they are less capable to cope with a complex or dynamic market, and thus their morale will be further reduced. However, research on product portfolio management has also shown that benefits of a deeper product portfolio may be contingent on other factors such as whether the firm uses product specialists or generalists in their sales force (Zoltners, Sinha, & Lorimer, 2006). Specifically, firms that employ product specialist sales forces can benefit from their expertise in a specific product line and can possibly benefit from lower salesperson turnover as specialists may be more apt to remain in a niche area that comprises fewer selling companies.⁵ Managers should acknowledge such contingencies uncovered by our research and try to manage their occurrence, perhaps by providing additional support or coaching to their sales force.

⁴ These results are based on the unstandardized coefficients produced by two simple regression model specifications where (a) sales force productivity and (b) sales force turnover are regressed onto sales force morale, respectively.

7. Limitations and future research

Our study is subject to several limitations. First, the job demands we focus on in our study are by no means exhaustive of the potential demands that salespeople may face in their work. Specifically, one might envision exploring environmental forces that go above and beyond the influence of customers, competitors, and technology. For instance, political, regulatory or sustainability forces are all having impacts on firms and salespeople.

Second, our focus here is on demands stemming from the external environment. However, demands may also refer to internal elements such as lack of leadership or coworker support as well as or a work climate that emphasizes high levels of workload, thus contributing to negative feelings about the job (Bakker & Schaufeli, 2000). In addition, because role ambiguity and role conflict are common to sales jobs, these salesperson-level demands should be investigated in future, more granular, individual-level research of morale.⁶

Third, average variance extracted of our measure of customer purchase complexity falls below the recommended value of 0.50. Although supporting evidence of the discriminant validity of this measure comes from the fact that it satisfies the stringent test recommended by Fornell and Larcker (1981) in that its AVE exceeds the highest squared correlation with any other construct (Table 3), additional work is needed in future research to refine this construct.

Fourth, regarding job resources, we focus on organizational aspects of the work environment. However, recent research suggests that salespeople may draw on resources such as the social capital they have developed with people residing outside the organization such as external business partners (Plouffe, Bolander, Cote, & Hochstein, 2016) or the social support from one's family (Bakker, Demerouti, & Dollard, 2008) which can be functional in achieving sales goals or in helping reduce job demands. Thus, delving into the full array of sales resources and how they might affect morale is a fruitful avenue for future research.

Fifth, related to job resources, although our measure of “sales capabilities training” captures the systematic training that is offered to salespeople, it does not explicitly captures the training interventions

that have been offered in the past. As such, future studies need to control for the offering of past training in order to isolate the effect of current offerings in a more explicit way.⁷ Likewise, our measure of a firm's product portfolio depth comprises a single item. Although prior research shows that constructs with concrete singular objects and attributes that managers confront in their everyday work can be measured with single-item scales and that predictive validity of single item measures is as good as that of multiple-item measures (Bergkvist and Rossiter, 2007), future investigators might want to further refine this construct.

Sixth, the finding that product portfolio depth amplifies, rather than alleviates, the negative effects of market demands on sales force morale suggests exciting avenues for future research. On one hand, if due to competitive pressures firms must have a complex product portfolio, what can then they do to boost sales force morale? An interesting area for research would be to examine the role of sales forces' dynamic capabilities such as absorptive capacity or ambidexterity for helping deal with increasing levels of complexity in the market (Fernhaber & Patel, 2012). On the other hand, future investigators need to ascertain whether a firm's product portfolio depth functions more as a job demand rather than a job resource. Doing so would perhaps require conducting qualitative research that would help glean insights from salespeople regarding the role of this construct.

Finally, our selection of industries and firms was guided by practical considerations and difficulties (i.e., collecting data from busy managers over two different points in time as well as from their salespeople). As such, we concentrated on three industries, which traditionally employ a large number of salespeople and are thus interested in learning about ways to improve sales force morale. This process however might have biased our results in the sense that only firms with a large sales force and a higher interest in sales force topics are included in our study. Accordingly, future research needs to be conducted in other industries (e.g., energy).

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Appendix A. Sample characteristics

Managers' sample	Percentage (%)	Salespeople's sample	Percentage (%)
<i>Firms' industry</i>		<i>Gender</i>	
Pharmaceuticals	34.3	Female	19.7
Food & beverages	27.6	Male	80.3
Electrical equipment	38.1	<i>Education</i>	
<i>Firms' number of employees</i>		High School	27.4
< 500	86.9	College	21.7
501 +	13.1	University	43.8
<i>Firms' annual sales (€)</i>		Graduate School	7.0
< 5 million	15.9	<i>Age</i>	
5–100 millions	59.5	< 30 years	25.0
101–999 millions	23.0	30–39 years	54.4
> 1 billion	1.6	40–49 years	13.3
		50–59 years	6.7
		> 60 years	0.6

⁵ We would like to thank an anonymous Reviewer for contributing this insight.

⁶ We would like to thank an anonymous Reviewer for contributing this insight.

⁷ We would like to thank an anonymous Reviewer for contributing this insight.

Informant title		Total sales experience	
Sales Director/VP of Sales/Sales Manager	80.6	< 1 year	6.4
General Manager/Managing Director	7.5	1–2 years	11.8
Commercial Director	10.4	3–6 years	25.9
Owner/CEO/President	1.5	7–10 years	22.0
		11–20 years	23.3
		> 21 years	11.6
Informant gender		Organizational Tenure	
Male	93.3	< 1 year	0.5
Female	6.7	1–2 years	39.7
		3–6 years	26.8
		7–10 years	16.4
		11–20 years	11.1
		> 21 years	5.4
Informant organizational tenure			
< 1 year	3.8		
1–5 years	41.5		
6–10 years	28.5		
11–20 years	17.7		
> 20 years	8.5		

Appendix B. Assessment of selection bias-based endogeneity

A. For the criterion of including firms based on whether they returned at least 3 salesperson responses, we specify the Heckman's selection model as follows:

$$AVAIL = \beta_0 + \beta_1 \times PCOMPLEX + \beta_2 \times MDYNAM + \beta_3 \times CAPTRAIN + \beta_4 \times PPDEPTH + \beta_5 \times CROSSF + \beta_6 \times TEAM + \beta_7 \times TERRITORY + \varepsilon \quad (W2.1)$$

where:

AVAIL = binary variable indicating whether at least three salespeople's responses are available, PCOMPLEX = customer purchase complexity, MDYNAM = market dynamism, CAPTRAIN = sales capabilities training, PPDEPTH = product portfolio depth, CROSSF = sales unit's cross-functional cooperation, TEAM = sales force team orientation, TERRITORY = territory design effectiveness.

Results show that no parameter estimate is significant at $p < .05$ (likelihood-ratio $\chi^2 = 4.92$, $p > .10$).

B. For the criterion of including firms based on whether manager responses were available at both year₁ and year₂ surveys, we specify the Heckman's selection model as follows:

$$AVAIL = \beta_0 + \beta_1 \times MORALE + \beta_2 \times SALARY + \beta_3 \times CUSTOM + \beta_4 \times TEAM + \beta_5 \times TERRITORY + \varepsilon \quad (W2.2)$$

where:

AVAIL = binary variable indicating whether manager responses were available at both year₁ and year₂ surveys, MORALE = sales force morale, SALARY = percentage of fixed salary in salesperson total compensation, CUSTOM = number of customers per salesperson, TEAM = sales force team orientation, TERRITORY = territory design effectiveness.

Results show that no parameter estimate is significant at $p < .05$ (likelihood-ratio $\chi^2 = 1.45$, $p > .10$).

C. For the criterion of including firms based on whether secondary, objective sales force productivity data at year₂ were available, we specify the Heckman's selection model as follows:

$$AVAIL = \beta_0 + \beta_1 \times MORALE + \beta_2 \times SALARY + \beta_3 \times CUSTOM + \beta_4 \times TEAM + \beta_5 \times TERRITORY + \varepsilon \quad (W2.3)$$

where:

AVAIL = binary variable indicating whether manager responses were available at both year₁ and year₂ surveys, MORALE = sales force morale, SALARY = percentage of fixed salary in salesperson total compensation, CUSTOM = number of customers per salesperson, TEAM = sales force team orientation, TERRITORY = territory design effectiveness.

Results show that only territory design effectiveness ($\beta_5 = -0.484$, $p < .01$) is significantly related to the availability of secondary, objective sales force productivity data at year₂ is significant; the rest of the parameters as well as the model (likelihood-ratio $\chi^2 = 7.97$, $p > .10$) are not significant.

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