The successful introduction of new products is critical to firm growth and survival. On average, about one-third of firms’ revenues come from new products, with that ratio approximating 100 percent in highly dynamic industries (Cooper 2001). More recently, it was reported that over 122,000 products were introduced in 2008, with 3.2 percent achieving over $1 million in sales and the collective revenues generated from these products surpassing $21 billion (Nielsenwire 2009). Given these statistics, it is not surprising that marketing researchers have devoted significant effort, over the course of many years, to understanding the influencers of new product performance.

Broadly speaking, research affirms that product (e.g., differentiation) and market (e.g., demand) characteristics are critical determinants of firms’ new product performance (Hehnard and Szymanski 2001). Yet, despite superior products and attractive markets, many new products still underperform or fail, an outcome that can be partly attributed to a simple but important truism: New products do not sell themselves. It is a firm’s sales force that is responsible for facilitating the diffusion and exchange of new products (Fu et al. 2010). Thus, in many industries, the fate of organizational new product initiatives is strongly influenced by the extent to which salespeople resist or embrace a new product and ultimately each salesperson’s new product performance (Atuahene-Gima 1997).

What determines a salesperson’s performance as it relates to the sale of new products? While this is an underresearched question within the new product literature (Atuahene-Gima 1997; Fu et al. 2010), studies aimed at addressing this important issue have slowly begun to emerge and suggest that several organizational (e.g., control mechanisms; Ahearne et al. 2010), product (e.g., complexity; Atuahene-Gima and Li 2006), and person (e.g., achievement orientation; Atuahene-Gima and Li 2002) characteristics influence a salesperson’s new product performance. In addition, most empirical studies to...
date posit that some form of engagement (e.g., selling effort; Fu, Richards, and Jones 2009) mediates the effects of these product, organizational, and person variables on a salesperson’s new product performance.

In spite of these important insights, theoretical understanding of the determinants of salesperson’s new product performance is still in its infancy (Ahearne et al. 2010). To help remedy this situation and motivate future research on this important topic, this paper (1) advances a comprehensive explanatory model—grounded in job demands-resources (JD-R) theory (Bakker and Demerouti 2007)—of the determinants of salesperson new product outcomes, (2) reviews empirical studies to determine the level of support for the causal linkages espoused in the JD-R-based model, and (3) identifies critical knowledge needs within this domain by exploring substantive discrepancies between the proposed model and existing empirical evidence.

In addition to serving as a catalyst for future research, this paper extends the literature in several important ways. First, we advance the JD-R model as an integrative theoretical framework for research on salesperson new product performance; thus far, research on this topic has proceeded using disparate theoretical lenses. Second, building on the JD-R model, we recast new product selling as a job demand that is multifaceted and can vary in intensity along several important dimensions (i.e., our conceptualization recognizes that all new product selling situations are not the same). Third, to the best of our knowledge, this is one of the first (if not the first) applications of the JD-R model within a sales context. As such, it provides further evidence of the applicability of the JD-R framework across research settings.

The balance of this paper is organized as follows. We introduce the JD-R theoretical framework, including a discussion of its relevance to new product selling and of model constructs. Next, we build on JD-R theory to advance a dual-process model of salesperson new product outcomes. In so doing, we develop testable propositions and subsequently evaluate the merits of each proposition given empirical evidence reported in the literature to date. Building on this evaluative process, we conclude the paper with a discussion of key knowledge needs, inferred from JD-R theory, within the new product selling domain.

INTRODUCTION TO THE JOB DEMANDS-RESOURCES MODEL

Overview and Relevance to New Product Selling

The JD-R model includes four broad categories of constructs (demands, resources, burnout, and engagement) that are responsible for influencing employee job outcomes. Specifically, the JD-R model is a dual-process theory whereby job demands and job resources interact to influence two psychological processes: job burnout and job engagement (Bakker, van Veldhoven, and Xanthopoulou 2010). Importantly, the model posits that demands are the main determinants of burnout, with resources acting to reduce burnout and serving as a buffer of the negative effects of demands. In contrast, resources are the most important predictors of engagement, with demands operating to reduce engagement while also enhancing the positive effects of resources (Bakker and Demerouti 2007). Burnout and engagement, in turn, exert negative and positive effects on job outcomes, respectively.

Why is this theoretical lens particularly useful for understanding and predicting new product selling phenomena? To date, extant research on new product selling has identified a broad set of factors—ranging from training to self-efficacy to competitive intensity—that can increase or decrease sales representatives’ new product sales levels or sales performance (e.g., Ahearne et al. 2010; Fu, Richards, and Jones 2009). These broad factors have been derived from different theory bases, with each offering complementary and, sometimes, competing explanations for why these factors influence new product selling outcomes. Within the JD-R framework, this broad set of factors can be categorized as representing either the demands imposed on or resources available to salespeople engaged in new product selling activities. Furthermore, common across many of these studies is the expectation that these demand and resource factors influence new product sales outcomes through intervening process variables related to salespersons’ level of investment or commitment to the new product. In JD-R terminology, these demands and resources can be said to influence new product sales through their effects on sales employees’ level of new product engagement. The JD-R model thus appears to offer a useful starting point for organizing the diverse set of factors, derived from multiple theory bases, that have been shown to influence new product selling outcomes; importantly, in addition to being integrative, the JD-R framework provides strong guidance regarding why and how these demand and resource factors are likely to influence new product selling outcomes. In light of its potential to inform research within this domain, the sections that follow leverage JD-R theory to explicate a comprehensive explanatory model of the determinants of salesperson outcomes in a new product selling context.

JD-R Model Constructs

The demands and resources that play a role in any given context depend on the characteristics of the job or job task (Bakker, Demerouti, and Verbeke 2004). For that reason, the specific resources, demands, process variables, and outcomes considered within JD-R-based studies tend to vary considerably (e.g., Nahrgang, Morgeson, and Hoffmann 2011). The
constructs that represent the five JD-R job factors in this conceptual study—new product selling demands, resources, burnout, engagement, and outcomes—are identified and defined in the remainder of this section. Figure 1 provides a graphical representation of how these new product selling factors are expected to relate to each other based on JD-R theory.

Within our framework, new product selling demands refer to the physical, social, and organizational requirements associated with the selling of a new product; these requirements involve sustained mental or physical effort and are associated with psychological costs. Consistent with prior research, we view job demands as a broad concept (e.g., Dwyer and Ganster 1991; Ganster and Fusilier 1989; Janssen 2001) that captures the challenges and hindrances sales representatives’ face when managing the introduction of a new product. These job demands are perceptual; that is, while the addition of a new product to a sales representative’s job requirements is a fact, how a sales representative perceives the demands of that new product addition is what matters most and will ultimately influence each sales representative’s new product sales performance (and other job outcomes as well).

Given this view, a new product introduction may be perceived as highly demanding by one sales representative and not at all demanding by another. In addition, a new product introduction may involve numerous related demands, each of which can vary in intensity. For instance, a new product introduction may demand that salespeople not only achieve a certain level of sales (the most basic of demands), but that they also spend time and energy learning about the new product, learning about the needs of new customers for the product, and balancing the amount of time they dedicate to new and old products and new and old customers. More broadly, selling a really new product may demand more of a salesperson than selling an incremental innovation. The point we want to emphasize is that numerous demands, which vary from salesperson to salesperson and product to product, are associated with new product selling situations.

In contrast, new product selling resources refer to the physical, psychological, social, or organizational factors that are functional in achieving new product goals, reducing new product-related demands and their associated costs, and stimulating personal growth and development. Resources are thus not only what enable sales representatives to cope with the demands imposed by a new product introduction but also promote engagement in new product selling situations. Resources that are likely to be valuable in new product situations may reside at the organizational, group, or personal level. For instance, new product training is a type of organizational resource that can help salespeople cope with the demands of selling a really new product. Likewise, trustworthy managers are an organizational resource that sales representatives can rely on when facing the challenge of selling a new product they are not fully comfortable with. At the group level, a supportive team can be an important resource to enhance motivation when dealing with the sale of a complex new product. At the personal level, a wide array of individual difference variables may function as resources for coping with new product demands, including time management skills (e.g., monochronicity versus polychronicity), learning capacity, adaptive ability, and self-efficacy.

Burnout and engagement represent the psychological process variables that link new product selling demands and resources to new product selling outcomes. New product burnout
A JD-R MODEL OF NEW PRODUCT SELLING

Psychological Benefits of New Product Selling Resources

The JD-R model posits that resources have motivational potential that serves to increase workers’ on-the-job engagement. According to JD-R theory, resources can be intrinsically motivating because they help satisfy employees’ basic needs (e.g., need for autonomy) or extrinsically motivating because they are instrumental to the achievement of work goals (Bakker and Demerouti 2007). In the case of new product selling, the latter motivational mechanism is most likely. That is, salespeople who have access to relevant resources (e.g., self-efficacy, team support, and training) are likely to feel that dedicating effort to the new product selling task will lead to desired outcomes (i.e., sales, compensation) and, as a consequence, they are likely to invest energy and effort in the new product selling task. Two recent, JD-R-based meta-analyses (Crawford, Lepine, and Rich 2010; Nahrang, Morgeson, and Hoffmann 2010) provide ample evidence in support of the desirable (i.e., positive) effects of different types of resources (e.g., personal versus organizational) on worker engagement. We propose the following:

**Proposition 1:** New product selling resources increase salespersons’ new product engagement.

The introduction of a new product implies many challenges for a sales representative; for example, in addition to generating sales, they must be able to find the appropriate balance between new and old products and new and old customers. The failure to successfully meet these demands represents a threat to important salesperson resources, such as customer loyalty, performance relative to other salespeople in the firm (i.e., relative status), and income. According to conservation of resources theory (Hobfoll 1989), individuals value and are motivated to protect valued resources. Burnout and other negative outcomes result when employees perceive that they are unable to protect valued resources from the demands of the job. In a new product selling context, such perceptions are less likely to result when salespeople have access to resource pools that enable them to adequately meet the demands associated with the new product selling task (Lazarus and Folkman 1984; Lee and Ashforth 1996). Consequently, availability of new product selling resources should result in decreased levels of new product burnout among sales representatives. This proposition is strongly supported by prior JD-R-based studies that find that resources have a direct negative relationship with burnout (e.g., Bakker, Demerouti, and Eeuwema 2005; Schaufeli and Bakker 2004). We propose the following:

**Proposition 2:** New product selling resources decrease salespersons’ new product burnout.

Effect of New Product Selling Demands on Burnout and Engagement

According to JD-R theory, cognitive, physical, and emotional resources help employees meet the demands of their jobs. Highly demanding job conditions activate a health impairment process that depletes employees’ resource pools and, in the absence of appropriate opportunity for recovery or resource gains, ultimately results in burnout and other undesirable consequences (Bakker and Demerouti 2007). New product selling situations involve several job demands that have been shown to increase burnout and stress among workers in a variety of occupations (Bakker and Demerouti 2007; Demerouti et al. 2001). For example, new product selling heightens the possibility of emotionally demanding interactions with customers as the salesperson attempts to “push” a new product to an established customer who values the relationship with the seller but also questions the added benefits of the new product. As another example, new product selling is likely to lead to heightened levels of work pressure and customer workloads; sales representatives must find the time to serve new and old customers and the time to sell and service new and old products. Consequently, as a result of the resource depletion process that likely ensues when salespeople are tasked with the sale of a new product, we propose the following:

**Proposition 3:** New product selling demands increase salespersons’ new product burnout.

The influence of new product selling demands on new product engagement depends on the nature of the demands. Specifically, it depends on whether the demands in question represent a challenge (e.g., high workloads, time pressure, and high levels of responsibility) or a hindrance (e.g., role stress, politics, and hassles) (Cavanaugh et al. 2000; Crawford, Lepine, and Rich 2010). Challenge demands tend to elicit...
positive emotions (e.g., excitement) and an active style of problem solving (e.g., increased effort). Salespeople who perceive demands as a challenge are more likely to view job demands as opportunities for growth (Kahn 1990). Moreover, salespeople facing challenge demands are more likely to invest in themselves to respond to the demand as they are likely to feel more confident that expanding effort will lead them to successfully meet the job demand (Crawford, Lepine, and Rich 2010; Macey and Schneider 2008). Other research has yielded similar conclusions (e.g., Eren and Isen 2002; May, Gilson, and Harter 2004), that is, the experience of positive emotions from being challenged is associated with greater levels of motivation and engagement. We propose the following:

**Proposition 4a:** Challenge-based new product selling demands increase salesperson new product engagement.

At the same time, hindrance demands are viewed as having the potential to harm or block personal growth and tend to lead to negative emotions (e.g., fear) and passive emotional coping styles (e.g., rationalization). When faced with hindrance demands, salespeople are less likely to invest themselves in the new product selling task due to the negative emotions. These emotions lead them to believe they are not up to the task of meeting the job demands. This expectation is supported by the work of Harter, Schmidt, and Hayes (2002), Kahn (1990), and May, Gilson, and Harter (2004). We propose the following:

**Proposition 4b:** Hindrance-based new product selling demands decrease salesperson new product engagement.

### Interactive Effects of New Product Selling Resources and New Product Demands

Beyond the main effects of demands and resources on burnout and engagement (described in Propositions 1–4), a key tenet of the JD-R model is that demands and resources combine interactively to determine employee job outcomes. A combination of high demands and low resources is hypothesized to produce the highest levels of burnout. High demands and high resources are hypothesized to produce the highest levels of engagement. Stated differently, the JD-R model posits that specific demands and resources interact to predict both employee burnout and engagement (Bakker, van Veldhoven, and Xanthopoulou 2010).

**The Resource Activation Hypothesis**

JD-R theory posits that resource pools (e.g., self-efficacy) are most valuable when workers face demanding job conditions (Bakker and Demerouti 2007) because such conditions serve to “activate” relevant employee resources as part of the coping process (Hobfoll 2001; Xanthopoulou et al. 2007). Stated differently, the engagement-enhancing benefits of a job resource increase in those situations where the high levels of job demands induce employees to make full use of relevant resources in order to achieve extrinsically or intrinsically motivated job outcomes (Bakker, van Veldhoven, and Xanthopoulou 2010). As a consequence, we expect that the positive effect of new product resources on new product engagement (P1) will increase as new product selling demands increase. We propose the following:

**Proposition 5:** The positive influence of new product selling resources on new product engagement is stronger (weaker) when new product selling demands are high (low).

**The Buffer Hypothesis**

JD-R theorists also argue that the undesirable (i.e., positive) effects of demands on burnout are weakened in the presence of demand-relevant resources because such resources enable employees to effectively cope with the demands of the situation (Bakker, Demerouti, and Verbeke 2004). In our current application of JD-R theory, this tenet of the model implies that new product selling resources serve to buffer or ameliorate the effects of new product selling demands on new product burnout; that is, the positive influence of selling demands on burnout (P3) is likely to be weakened among those salespeople with deep resource pools because of their improved ability to cope with the demands of the selling job. We propose the following:

**Proposition 6:** The positive influence of new product selling demands on new product burnout is stronger (weaker) when new product selling resources are low (high).

### The Relationship Between New Product Burnout, New Product Engagement, and Salesperson New Product Outcomes

Burnout has been shown to decrease employees’ sense of obligation and desire to remain with their organization because the strain reflects poorly on the value conferred by the employee–organization exchange relationship (Chang, Rosen, and Levy 2009; Cropanzano, Rupp, and Byrne 2003). Burnout has also been shown to deplete employees’ energy levels (Crawford, Lepine, and Rich 2010); depleted employees lack the mental, physical, and emotional energy needed to fulfill role obligations effectively, which ultimately translates into poor performance (Nahrgang, Morgeson, and Hoffmann 2011). Consequently, within a new product selling context, burnout is likely to reduce employees’ level of new product engagement because the product itself is viewed as a source of strain. Moreover, new product burnout will result in decreased energy directed toward the sale of the new product (perhaps
even existing products), thus reducing desired new product outcomes. These expectations are captured in the following two propositions:

**Proposition 7:** Increasing new product burnout decreases new product engagement.

**Proposition 8:** Increasing new product burnout has undesirable effects on new product outcomes.

Finally, JD-R theory suggests that engagement levels should lead to desirable worker outcomes. Specifically, engaged employees focus their physical, cognitive, and emotional energies on goal attainment (Nahrgang, Morgeson, and Hoffmann 2011) and consequently perform better than their less engaged counterparts (Bakker and Demerouti 2007). Rich, Lepine, and Crawford (2010) suggest that each of these energies are important to goal attainment; physical energies facilitate the performance of behavioral routines, cognitive energies provide for a sharper focus and improved attentiveness to role-relevant details, and emotional energies enhance performance by helping employees deliver more complete and authentic performances. Collectively, improved physical, cognitive, and emotional energies explain why engaged employees experience heightened levels of performance relative to less-engaged employees. In a new product selling context, these arguments thus suggest that new product engagement leads to favorable new product outcomes because sales representatives possess the energy levels necessary to deliver these desired outcomes. We propose the following:

**Proposition 9:** Increasing new product engagement has desirable effects on new product outcomes.

**EXISTING EMPIRICAL SUPPORT FOR THE PROPOSED JD-R MODEL**

**Extant Research from a JD-R Perspective**

Table 1 offers a comprehensive summary of the empirical studies within the new product selling domain, using the JD-R model as an organizing framework. Based on our review of the studies and consistent with the JD-R framework, we classified variables within each study as representing either new product demands, resources, engagement, burnout, or salesperson outcomes. Regardless of construct labels, our classification of study constructs was based on the authors’ description of the construct and the rationale provided for the relationships advanced in the study. We offer a summary of key findings from each paper in the last column of the table, noting its relevance to one or more of the study’s research propositions by prefacing it with the shorthand label (e.g., P1) of the relevant proposition (findings unrelated to the research propositions are identified with the label “NP”).

Before proceeding to discuss how prior research findings relate to the research propositions developed in this paper, three facts are worth noting. First, we were able to easily classify the constructs employed in extant studies using the construct categories (i.e., demands, resources, engagement, burnout, and outcomes) represented by the JD-R framework. This suggests that the JD-R model is applicable within this particular context and may offer a useful theoretical lens for predicting and explaining phenomena related to new product selling. Second, while not voluminous, research within this domain has employed relatively robust data sources to evaluate focal relationships of interest. Specifically, a majority of the studies employ multisource databases; several of them build on longitudinal data and even leverage multiple waves of data to specify and test growth models that examine the interplay of demands and resources in predicting new product sales growth. Third, several studies offer indirect support for the propositions advanced in this research effort; specifically, studies offer evidence of the unmediated impact of new product resources and demands on new product selling outcomes (e.g., Anderson and Robertson 1995; Atuahene-Gima and Li 2002; Fu 2009).

**Support for the JD-R-Based Research Propositions in the New Product Selling Literature**

A cursory inspection of Table 1 reveals that while published research does offer some direct support for several of the study propositions (i.e., P1, P4, P5, and P9), it does not offer any support for relationships that involve new product burnout (i.e., P2, P3, P6, P7, and P8). Stated differently, our review of the literature shows that prior research has focused exclusively on engagement-type constructs (e.g., selling effort, brand adoption) as the mediator of choice for the effects of new product resources and demands on new product outcomes. This is an important omission as it suggests that possible “dark-side” effects of new product selling have been understated in research published to date. Given the lack of attention to burnout-related effects in the literature, the balance of this section focuses on examining findings related to our framework’s new product selling engagement propositions (i.e., P1, P4, P5, and P9).

Prior research offers mixed support for Proposition 1, which posits that the availability of new product selling resources increases salespersons’ new product engagement. Specifically, Wieseke, Homburg, and Lee (2008) find that expected customer demand (a resource) increases salesperson adoption of the brand (an engagement measure). Similarly, Fu et al. (2010) find that self-efficacy and favorable attitudes toward the product (both resources) increase new product selling intentions, a form of engagement. In contrast to the latter finding, Ahearne et al. (2010) report that favorable new product perceptions
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<th>Study</th>
<th>Sample</th>
<th>Demands</th>
<th>Resources</th>
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<th>Burnout</th>
<th>Outcomes$^a$</th>
<th>Related Proposition: Key Findings$^b$</th>
</tr>
</thead>
</table>
| Anderson and Robertson (1995) | Salespeople from the financial services sector ($n = 208$) | Customer loyalty hazard | Training | — | — | Product adoption ($\text{proportion of commission due to new product}$) | NP: Career success, dependence upon the firm and training increase product adoption  
NP: Customer loyalty hazard, sales experience and external information gathering reduce product adoption |
| | | Salesperson mobility hazard | Supervisory attention | Sales experience | Financial incentive | Satisfaction in selling new product Sales performance | |
| | | Firm commitment to product | Career success | Information gathering | Dependence upon firm | Satisfaction in selling new product Sales performance | |
| Atuahene-Gima and Micheal (1998) | Field salespeople drawn from 5 different industries in Australia ($n = 118$) | Competitive intensity | Product competitive advantage | Selling effort | — | Satisfaction in selling new product Sales performance | P9: Selling effort positively influences salesperson satisfaction with selling the new product, contingent on the weakening effect of product competitive advantage and salesperson experience  
P9: Selling effort positively influences sales performance, contingent on the weakening effect of competitive intensity |
| | | Role ambiguity | Selling synergy | Salesperson education | Salesperson experience | |
| Hultink and Atuahene-Gima (2000) | Salespeople from high-tech firms in the Netherlands ($n = 97$) | Sales controls | Internal marketing | Sales force product adoption (effort $\times$ commitment) | — | Sales performance | P9: Sales performance is positively related to sales force product adoption, contingent on the effects of several job demands and resources (e.g., training and field attention weaken the adoption-performance relationship while internal marketing strengthens it) |
| | | Market volatility | Salesperson trust in sales manager | |
| | | | Training | |
| | | | Field attention (joint sales calls with supervisor) | |
| Atuahene-Gima and Li (2002) | Salespeople from high-tech firms in China ($n = 157$) and the United States ($n = 190$) | Role ambiguity | Achievement orientation | — | — | Sales performance | NP: Achievement orientation and supervisor accessibility increase salesperson trust  
NP: Salesperson trust increases sales performance, contingent on the effects of several job demands and resources |
| | | Sales controls | Supervisor accessibility | |
| | | | Salesperson trust in sales manager | |

(continues)
### TABLE I
Continued

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<tr>
<th>Study</th>
<th>Sample</th>
<th>Demands</th>
<th>Resources</th>
<th>Engagement</th>
<th>Burnout</th>
<th>Outcomes*</th>
<th>Related Proposition: Key Findings*</th>
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<tr>
<td>Atuahene-Gima and Li (2006)</td>
<td>Salespeople from high-tech firms in China (n = 170)</td>
<td>Sales controls, Market volatility, Product complexity</td>
<td>Long-term orientation, Participative supervision, Training intensity, Salesperson trust in sales manager</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>NP: Process and output sales controls have differential effects on salesperson trust, contingent on the effects of several job demands and resources present</td>
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<tr>
<td>Wieseke, Homburg, and Lee (2008)</td>
<td>Salespeople (n = 391) and sales managers (n = 156) employed in travel agency franchises</td>
<td>Expected customer demand</td>
<td>Brand adoption (salesperson and sales manager)</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>P1: Expected customer demand is positively related to new product adoption among sales managers and the sales force \ P1: The positive influence of sales manager brand adoption on salespeople’s brand adoption is stronger when salespeople perceive that customer demand is likely to be low</td>
</tr>
<tr>
<td>Fu, Richards, and Jones (2009)</td>
<td>Industrial salespeople (n = 147) from a multinational tool company</td>
<td>Assigned goals*</td>
<td>Self-efficacy</td>
<td>Selling effort (hours worked, calls made)</td>
<td>—</td>
<td>Unit sales*</td>
<td>P4: Self-set goals and selling effort are related nonlinearly (increasing then decreasing) \ P9: Assigned goals, self-set goals and selling effort increase unit sales (lagged)</td>
</tr>
<tr>
<td>Fu (2009)</td>
<td>Industrial salespeople (n = 314) from a multinational tool company</td>
<td>Self-set goals</td>
<td>Sales experience, Salesperson age</td>
<td>—</td>
<td>—</td>
<td>Unit sales growth*</td>
<td>NP: New product sales growth increases as self-set goals and salesperson experience increase and decreases as salesperson age increases</td>
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<tr>
<td>Study</td>
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<td>Constructs</td>
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| Fu et al. (2010) | Two samples of salespeople (n = 308; n = 226) from a multinational tool company | Subjective norms, Self-efficacy, Attitude toward selling the new product, Selling intentions (time, intensity, effort) | —                                                                       | P1, P5: The positive effects of self-efficacy and of a favorable attitude toward the new product on selling intentions is weakened when subjective norms are high  
P9: Self-efficacy and selling intentions are positively related to sales growth, contingent on the weakening effect of subjective norms |
| Ahearne et al. (2010) | Pharmaceutical sales representatives (n = 226)                                      | Sales controls, Favorable product perceptions, Salesperson experience, Selling effort (number of sales calls) | —                                                                       | P1, P5: Salesperson product perceptions are negatively related to salesperson effort, contingent on the effects of sales controls and salesperson experience  
P9: Salesperson effort is positively related to customers’ perception of the product, contingent on the weakening effect of behavior-based control  
NP: Sales performance is positively related to customers’ product perceptions |

* Indicates an objective measure of the construct or variable was used. † Findings not directly related to one of study’s research propositions are prefaced by the label NP.
among salespeople (a resource) actually decrease engagement, represented in their study by selling effort. This discrepant finding could be a result of different factors, such as a poor understanding of what salespeople consider to be a resource within this context, differences in the engagement measure (i.e., selling intentions versus actual effort), unaccounted for moderators, and model specification decisions.

Our literature review uncovered only one study that investigates the impact of new product selling demands on new product engagement (P4). Fu, Richards, and Jones (2009) find that self-set goals (a demand) and engagement (operationalized as selling effort) are related in a nonlinear fashion, with selling effort first increasing with increasing goals and then decreasing as new product selling goals reach more unrealistic levels. This finding offers indirect support for Propositions 4a and 4b, which respectively argued that challenge demands increase engagement while hindrance demands decrease engagement. We conjecture that realistic sales goals (i.e., demands) serve to engage salespeople as they pose an achievable challenge that provides for personal growth. In contrast, unrealistic or exceedingly high goals likely result in engagement-reducing role stress (a type of hindrance demand) because sales representatives feel they are unable to meet their prescribed role obligations. This study thus provides at least some preliminary support for the notion that new product selling challenges will actually serve to increase engagement while hindrances will serve to reduce engagement.

Despite this preliminary support for Proposition 4, two important and related issues are worth noting. First, studies that consider the impact of new product selling demands on new product engagement have focused only on a narrow set of job demands; most of the demands considered in the studies focus on managerial expectations or controls (e.g., control systems, assigned goals, subjective norms) or on limited characteristics of the marketplace (e.g., competitive intensity). Yet, as we argued earlier, new product selling situations can vary tremendously as it relates to the demands they place on a sales representative, and the perceptions of those demands can vary substantially from one salesperson to the next.

Second, extant research has primarily focused on relatively broad engagement measures, such as selling effort or selling intentions. While these are reasonable measures to employ, they do not reflect how the relevant new product selling demands (and resources for that matter) affect effort directed at specific activities, such as prospecting, learning about the new product, postsales follow-up, and customer training. Measures of activity-specific engagement seem critical to deriving a better understanding of what aspects of salesperson effort are more likely to translate into desirable outcomes in a new product context and, naturally, how demands and resources affect the amount of effort salespeople invest in performing the specific activities.

Two studies offer mixed support for the resource activation hypothesis (P5), which argues that the positive influence of new product selling resources on new product engagement is stronger when new product selling demands are high. In partial support for this proposition, Ahearne and colleagues (2010) find that favorable salesperson product perceptions (a resource) are unrelated to salesperson new product engagement when the more time-demanding form of sales control (i.e., behavior-based control) is employed and negatively related to engagement when the less time-demanding form of sales control (i.e., outcome-based control) is employed. This finding is consistent with the notion that demanding conditions accentuate the effects of new product selling resources; however, this finding offers only partial support for the proposition because the main effect of the resource was found to be negative (instead of positive). In another study, Fu et al. (2010) find an effect opposite of what is posited in Proposition 5; namely, they find that the effects of new product selling resources (i.e., self-efficacy and favorable product attitudes) on selling intentions (a form of engagement) is weakened when subjective norms—a type of selling demand that captures organizational, social, and managerial pressures to sell the new product—are high. While counter to Proposition 5, this result suggests that demands that threaten focal salesperson resources (e.g., subjective norms undermine a salesperson’s self-efficacy) may inhibit the positive benefits of the resource because salespeople will be motivated to conserve their resources under such conditions (Hobfoll 1989, 2001).

Finally, existing research offers strong support for Proposition 9, which suggests that new product engagement will increase salesperson new product outcomes. This proposition is supported in several studies, including Ahearne et al. (2010), Atuahene-Gima and Micheal (1998), Fu, Richards, and Jones (2009), Fu et al. (2010), and Hultink and Atuahene-Gima (2000). Although this level of empirical support for Proposition 9 is encouraging, it is worth noting that these studies focus primarily on new product sales as the focal outcome variable. While this is the most natural outcome to consider, prior research has ignored other potentially important outcomes associated with the selling of new products, such as the sales of established products, customer satisfaction, relationship quality, and so forth. This omission is particularly important given that prior studies have also failed to account for the role of employee burnout in the new product selling process.

**DISCUSSION**

This research paper advances a dual-process model, grounded in JD-R theory, of the determinants of salespersons’ new product outcomes. While extant research offers only limited evidence in support for the model’s proposition, the JD-R-based explanatory structure advanced in this paper adequately...
Table 2
Support in the Extant Literature for the JD-R-Based Model of New Product Selling

<table>
<thead>
<tr>
<th>Number</th>
<th>Proposition</th>
<th>Support in Extant Studies</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>New product selling resources increase salespersons’ new product engagement.</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>New product selling resources decrease salespersons’ new product burnout.</td>
<td>✓</td>
</tr>
<tr>
<td>3</td>
<td>New product selling demands increase salespersons’ new product burnout.</td>
<td>✓</td>
</tr>
<tr>
<td>4a</td>
<td>Challenge-based new product selling demands increase salesperson new product engagement.</td>
<td>✓</td>
</tr>
<tr>
<td>4b</td>
<td>Hindrance-based new product selling demands decrease salesperson new product engagement.</td>
<td>✓</td>
</tr>
<tr>
<td>5</td>
<td>The positive influence of new product selling resources on new product engagement is stronger (weaker) when new product selling demands are high (low).</td>
<td>✓</td>
</tr>
<tr>
<td>6</td>
<td>The positive influence of new product selling demands on new product burnout is stronger (weaker) when new product selling resources are low (high).</td>
<td>✓</td>
</tr>
<tr>
<td>7</td>
<td>Increasing new product burnout decreases new product engagement.</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Increasing new product burnout has undesirable effects on new product outcomes.</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Increasing new product engagement has desirable effects on new product outcomes.</td>
<td>✓</td>
</tr>
</tbody>
</table>

subsumes the proximate and distal determinants (i.e., constructs) of new product selling outcomes investigated in prior research; it also offers a well-established theoretical rationale for the causal relationships likely to exist between these determinants. As a consequence, it seems that an empirical evaluation of the JD-R-based propositions and expectations outlined in this research effort may provide for a more robust understanding of the factors that influence valued outcomes in a new product selling context. Toward that end, the remainder of this discussion section outlines critical research areas within the new product selling domain suggested by a comparison of the JD-R framework advanced herein and the current state of the new product selling literature.

Research Need 1: Empirical Examination of Unexplored and Underexplored Causal Linkages

As is illustrated in Table 2, existing research offers limited support for the propositions advanced in the study; some propositions have not been investigated at all in prior research and others have received anywhere from weak to strong support. Thus, an important first step toward improving understanding of the determinants of salesperson new product outcomes is to test the research model advanced in this study using robust data sources across multiple industry settings.

Moreover, a strong need exists for “dual-process” research, which simultaneously considers how new product selling demands and resources combine to produce both engagement and burnout among members of the sales force. Prior research has focused exclusively on salesperson engagement as the process mechanism through which resources (e.g., training and self-efficacy) and demands (e.g., sales quotas) influence new product selling outcomes. Yet JD-R theory suggests and empirical evidence supports the notion that across most types of jobs, engagement and burnout work in parallel to influence job outcomes. New product-related burnout may not only work to reduce salesperson engagement, it may also exert negative effects on other job outcomes, including sales performance, customer satisfaction, and employee turnover. Stated differently, explicit consideration of the determinants and consequences of burnout within a new product selling context may uncover “dark-side” consequences of managerial strategies aimed at bringing new products to market. Moreover, expanding past research models to include new product-related burnout is important in that it may alter the basic relationships found in prior research.

Although not explicitly addressed in the proposed model, research is also needed to explore the relationship between new product selling resources and demands. Within the JD-R literature, the causal ordering of this relationship is the subject of
debate. Some argue that resources reduce perceived demands as resource-rich employees interpret job conditions as being less demanding (i.e., a negative relationship). Yet, it is also possible that demanding situations lead to enhanced resource levels via managerial efforts directed at helping employees deal with the challenges inherent in the situation (e.g., training) or through recruitment practices that identify workers well-endowed with the resources most relevant to the challenges at hand. Studies aimed at addressing this controversy can make an important contribution to JD-R theory and to the understanding of new product selling phenomena.

Research Need 2: More Robust Conceptualization of New Product Factors

What other demands do new product selling tasks involve? Part of our thesis in this paper is that the demands associated with selling a new product are perceptual and thus vary not only from salesperson to salesperson but also from product to product. The research we reviewed has treated demands rather uniformly, with the focus being on a related and a limited set of demands, namely, sales goals, normative pressure, and sales controls. Research is needed that takes a broader view of the demands salespeople face when selling a new product. For instance, past studies have focused largely on internal new product selling demands (i.e., demands resulting from changes within the salesperson firm) to the exclusion of demands that may originate from customers. Likewise, research may consider demands that are industry-specific, such as those faced by salespeople employed in the high-tech sector where product development and enhancement happens rapidly (consider the evolution, for example, of the cell-phone market, which has quickly gone from flip phones to QWERTY-keyboard phones to touch-screen phones or from 3G-compatible to 4G-compatible phones). Within this context, just as salespeople become proficient at selling version 19.5.6.7, the company launches version 20.0. As additional examples, are forgetting about old products and protecting existing customer relationships from new products common demands perceived by members of the sales team? Or do salespeople view the act of approaching established customers with a new product emotionally demanding? We propose that it might be fruitful to investigate (perhaps using qualitative methods) whether these and other unexplored demands play an important role in new product selling contexts.

What determines salespersons’ perceptions of new product selling demands? As demands are perceptual, future research should consider the role of individual difference variables that are likely to shape salespersons’ perceptions of the demands associated with a new product selling situation (Lazarus and Folkman 1984). To illustrate, consider the case of highly ethical salespeople who have to “believe” in the product to be able to sell it to customers in good conscience. For them, selling a new product involves several related demands, including (1) spending the time to understand customer wants and needs, (2) spending the effort necessary to learn the features and benefits of the new product, (3) making an assessment of the fit between the new product and the customers’ needs, and (4) becoming convinced that the product offers customers good value for the money. As this example suggests, exploring the impact of individual differences on perceived demands may have important implications for salesperson recruitment, training, and ultimately, new product sales performance.

Which new product demands represent challenges and which represent hindrances? Our review of the literature found that some of the new product selling demands (e.g., assigned goals and self-set goals) actually served to increase sales representatives’ levels of engagement (up to some point). This finding implies that a distinction between hindrance and challenge demands is important when attempting to understand how salespeople respond to different demand elements of the new product selling situation (Cavanaugh et al. 2000). Salespeople who feel overwhelmed or hindered by new product introductions may react differently than those who view new product introductions as challenges. Similarly, salespeople who self-impose pressure may also react differently than their counterparts who view job demands as originating mainly from the job. Thus, understanding of which types of demands are typically construed as challenges and which are viewed as hindrances is critical to an accurate understanding of how different types of demands are likely to influence new product selling outcomes.

Which are the most critical new product selling resources? The role of new product selling resources (e.g., training, self-efficacy, and sales experience) has been studied the most within this literature. As a consequence, the effects of a wide variety of new product selling resources on new product selling outcomes have been empirically established. This fact notwithstanding, basic research is still needed to establish what salespeople consider to be valuable resources within this context. Identifying critical new product selling resources from the salesperson’s perspective seems particularly important in light of contradictory findings regarding the effects of fundamental resources such as training (e.g., Anderson and Robertson 1995; Hultink and Atuahene-Gima 2000). For instance, which of the following unexplored factors would salespeople consider to be valuable resources when charged with the task of selling a new product?

- Referral lists
- Clear understanding of what constitutes a good target customer
- Clarity of product positioning
- Quality of sales collateral materials
that future research should also take a growth modeling approach to examine how trends in engagement and burnout influence new product sales outcomes (i.e., there is a need for dual-process growth models focused on engagement and burnout). Engagement and burnout are not static processes; after a product is launched, some salespeople may experience increases or decreases in engagement and burnout or both—understanding the drivers and consequences of these trends (and the relationship between them) should provide managers with much clearer prescriptions for how to most effectively handle new product roll-outs as they evolve (e.g., when to time “booster” sessions to rally the sales team behind the new product).

Does customers’ perceptions of the product and firm influence new product selling outcomes? Research is needed that accounts for the role of actual customer perceptions (a resource) on new product selling outcomes. Past efforts have largely focused on construed customer perceptions and intentions; yet favorable customer perceptions may be a valuable resource (operating outside of the salesperson’ consciousness) that enhances salesperson effectiveness by “opening doors” for them. As an example, customers’ perceptions of corporate image regarding innovation and market leadership may be a valuable resource. Customers might be very welcoming to a salesperson from a firm with a strong reputation for innovation while they may be more resistant to salespeople from firms that are not known for their innovation prowess.

CONCLUDING REMARKS

While much progress has been made over the past decade to enhance understanding of the determinants of new product selling performance, our analysis of the literature uncovered several knowledge needs, with important managerial and theoretical implications, that still remain. Our hope is that this effort, which advances a JD-R-based perspective on new product selling, serves as a catalyst for future research endeavors aimed at developing a more robust understanding of the new product selling phenomenon.

REFERENCES


Research Need 3: Improvements in Methods and Sources

How do engagement and burnout change over the lifetime of a new product? Several studies within this literature have employed growth models to examine sales “take-off” after a new product is introduced (e.g., Fu et al. 2010). We propose that future research should also take a growth modeling approach to examine how trends in engagement and burnout influence new product sales outcomes (i.e., there is a need for dual-process growth models focused on engagement and burnout). Engagement and burnout are not static processes; after a product is launched, some salespeople may experience increases or decreases in engagement and burnout or both—understanding the drivers and consequences of these trends (and the relationship between them) should provide managers with much clearer prescriptions for how to most effectively handle new product roll-outs as they evolve (e.g., when to time “booster” sessions to rally the sales team behind the new product).

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