The study of new product innovation has been gaining considerable attention among academic researchers (e.g., Ayers, Dahlstrom, and Skinner 1997; Cooper 2000; Frishammar and Ylinenpaa 2007; Hauser, Tellis, and Griffin 2006; Min, Kalwani, and Robinson 2006; Page and Schirr 2008; Song and Parry 1997; Srinivasan, Lilien, and Rangaswamy 2006). With companies in the pharmaceutical and software industries, for example, spending between 15 percent and 21 percent of total revenue on developing new products (Krishnan and Zhu 2006), the cost of new product failure can be unbearable even for large firms. Clearly, academic interest in factors that influence the success of a new product launch is warranted.

Past literature offers insights on best practices in new product development (NPD) (Adams-Bigelow 2006; Griffin 1997; Page 1993), the relationship between market orientation and NPD (Atuahene-Gima 1996; Baker and Sinkula 2007; Narver and Slater 1990), and the R&D–marketing interface (Gupta, Raj, and Wilemon 1986; Olson, Walker, and Ruekert 1995; Song and Thieme 2006; Van den Bulte and Moenart 1998). Moreover, from the marketing strategy literature, we learn that many industries are moving toward a state of hypercompetition, characterized by dynamic competitive actions and constant disequilibrium (D’Aveni 1994; 1995). According to D’Aveni, this state of escalating competition is based partially on the struggle to be the first to create new know-how (i.e., products, processes, etc.). Furthermore, the threat to market stability is intensified by short product life cycles and product development cycles along with constant technology advances (D’Aveni 1994). It is not surprising, then, that researchers are drawn to the study of new products that hold the practitioners’ hope of gaining first-mover status (Kerin, Varadarajan, and Peterson 1992) and at least a short-term competitive advantage (D’Aveni 1994).

Despite the growing academic interest in drivers of NPD success, the role of the sales force during new product launches has not received sufficient attention (Atuahene-Gima 1997). This fact is surprising, because multiple studies suggest that vigorous sales force support for new products is critical to product launch effectiveness (Booz, Allen, Hamilton 1982; Cooper 2000; Cooper 1979a, 1979b; Di Benedetto 1999; Kulvik 1977). In addition, outside of a sales-specific context, a meta-analysis conducted by Henard and Szymanski (2001, p. 368) establishes that aspects of a new product/service launch are among the “dominant drivers” of new product performance. Limited extant research has examined the role of the sales force as a source of marketing intelligence during NPD (Judson et al. 2006), supervisee trust in selling new products (Atuahene-Gima and Li 2002; 2006), and how firms modify their sales management strategy before and after a new product introduction (Wotruba and Rochford 1995). Our review
uncovered one study examining the determinants of new product selling performance (Hultink, Atuahene-Gima, and Lebbink 2000), but its results are difficult to generalize because of a small sample size and a narrow focus on salespeople in the Netherlands.

Moreover, the limited existing empirical research provides conflicting results concerning the role of the sales force during new product introductions. Even though we might naturally anticipate salespeople to have higher intentions to sell a newly introduced product, Ahearne, Rapp, and Rich (2006) find that salespeople who carry multiple products in a pharmaceutical setting invest less effort in selling a new product when they perceive it to be highly innovative. The logic is that if selling companies promote new products heavily during new product introductions, the products tend to “sell themselves,” and salespeople are better off focusing on other products in their portfolio. Their logic stands when one considers that, in recent years, pharmaceutical companies have increasingly emphasized a “product pull” strategy, rather than the traditional “push strategy,” through the use of direct-to-consumer advertising, which has led to an increase in the number of physicians requesting specific advertised medications from their physician (Lipman 2000; Parker and Pettijohn 2005). Because advertising is also a key success factor in new product launches (Di Benedetto 1999), it is possible that a salesperson would not have an intention to “push” a product that is already being “pulled.” Nevertheless, these results cast doubt on our understanding of the impact of new product launch characteristics on salespeople’s selling intentions.

In this study, we delve deeper into the role of the sales force during new product launches with the following research questions in mind:

RQ1: How does salesperson selling intention affect new product performance?

RQ2: How do new product launch characteristics, such as perceived product innovativeness and customer newness, influence salespeople’s selling intentions and, eventually, new product performance?

RQ3: Does including salespeople’s selling intentions provide a better understanding of the product innovativeness–new product performance relationship?

Addressing these questions would contribute to the literature by illuminating the importance of the sales force in new product introductions, which possesses theoretical merit and meaningful scholarly and managerial implications. Figure 1 depicts the conceptual model we test. The model also posits salesperson intention to sell a new product—a previously ignored variable in the NPD literature—as a key mediating influence.

HYPOTHESES DEVELOPMENT

Selling Intentions and New Product Performance

Salesperson effort has been found to be a key driver of sales revenue (Zoltners, Sinha, and Zoltners 2001). The positive relationship between salesperson effort and performance has been suggested by multiple theories (e.g., expectancy theory, agency theory, and achievement motivation theory) and has considerable empirical support in a variety of contexts (Brown and Peterson 1994; Churchill et al. 1985). For many companies, especially those operating in a business-to-business context, the sales force serves as the primary communication link to target customers (Zoltners, Sinha, and Zoltners 2001). Conceptually, therefore, salespeople’s intentions to sell a new product should be critical to new product performance (see Hultink and Atuahene-Gima 2000).

Models and frameworks have been advanced in the social sciences literature to predict individuals’ consciously intended behaviors. For our purposes, the theory of reasoned action (TRA) (Fishbein and Ajzen 1975; 1980), along with its extension, the theory of planned behavior (TPB) (Ajzen 1991), will serve as the lens through which we view our nomological network and the foundation upon which we build our arguments. According to Fishbein and Ajzen, the primary goal of TRA is to “predict and understand an individual’s behavior” (1980, p. 5). Prediction is accomplished through the claim that, aside from unexpected external influences, a person’s behavior is determined by their intentions. This theory undergirds our model in that intention to sell a new product will determine the extent to which salespeople exert effort to sell the new product, which, in turn, will have an influence on the new product’s performance. We now address the formation of intention.

In order to understand an individual’s behavior, Fishbein and Ajzen (1975) prescribe the determinants of intention. They bridge the person–situation debate by including one main determinant that is personal in nature (attitude toward the behavior) and one that is social in nature (subjective norms). TRA was proposed more than a decade before Davis-Blake and Pfeffer (1989) sparked a series of arguments over the relevance of personal factors in organizational settings (House, Shane, and Herold 1996; Staw and Cohen-Charash 2005).

More importantly, perhaps, is the extent to which TRA has been validated across a variety of studies (Sheppard, Hartwick, and Warshaw 1988). Its use is widespread, and intentions are widely accepted as predictors of actual behavior (Ajzen 2001). Thus, our overarching hypothesis is that as behavioral intention has been shown to be a reliable predictor of salespeople’s effort (i.e., behavior), salespeople’s attitudes toward selling a new product (i.e., intentions) will determine how well the new product will perform.
Hypothesis 1: Salespeople's intention to sell a new product is positively related to new product performance.

Product Innovativeness and Selling Intentions

Product innovativeness reflects the degree to which a new product is viewed as possessing new and unique attributes and features as compared to other products offered by the firm from a salesperson's perspective (Wu, Balasubramanian, and Mahajan 2004). In line with our model and TRA, product innovativeness is important on two levels. First, if salespeople believe that a new product is groundbreaking or one-of-a-kind, they will have a more positive attitude toward selling it. Second, product innovativeness is important because of the organizational activity that would typically surround the release of a new product. In terms of TRA, this organizational activity establishes norms of behavior for salespeople (i.e., subjective norms). A justification of these statements follows.

To salespeople, the unique attributes of a new product may suggest a greater market potential and a better chance of success. The positive information about a new product and projections about its future success should generate positive feelings among salespeople about the utility and value their customers will perceive in the product. Salespeople carrying multiple product lines will have a greater intention to exert effort in selling a product that they perceive has a higher market potential and a greater potential to maximize their own income; thus, salespeople are more likely to sell a new product with such characteristics.

Meanwhile, product innovativeness may increase salespeople's intention to sell by increasing their perceived chance to gain more precious time with customers. The novelty of a new product provides good “excuses” for salespeople to visit a customer. Even for long-term customers who are familiar with a company's products, a new product with interesting features and benefits enables salespeople to gain more attention and deepen the business relationship. This enables salespeople to use a “foot-in-the-door approach” to, perhaps, cross-sell or up-sell. Unlike transactional selling, relationship selling emphasizes the importance of continually adding value to the customer's business. A new product can be viewed as a vehicle to demonstrate the continuous effort of salespeople and the company they represent to add value to the customer's business. Although product innovativeness is often associated with uncertainty (i.e., customers may or may not adopt the product), salespeople who carry multiple products are still better off by gaining extra time from customers, thereby increasing the chance to sell other products in their portfolio. Even though customers’ adoption of the new product is not guaranteed, it is almost certain that salespeople will receive a positive return from their investment of effort in the form of valuable attention from customers, a strengthened relationship, or opportunities to sell other products in the salesperson's portfolio.

Consideration should also be given to the possibility that selling a new product simply reflects well on salespeople because their business customers, who are constantly seeking novel ways to retain their customer base while attracting new
customers, are likely to be impressed by a salesperson with new solutions to their problems. Moreover, there is typically enthusiasm from salespeople as they consider selling new products that could lead to new sources of commissions or bonuses. This excitement would be even stronger if the salespeople believe competitors are introducing a similar product soon, and they have only a limited time in which to capitalize on the “monopoly window” (Gelb, Andrews, and Lam 2007). This situation would not only lead to a positive attitude toward selling the product but would also serve to create a sense of urgency that could further contribute to the success of the new product launch.

In addition to the role of salesperson attitudes about innovative products, it is essential to examine the role of subjective norms surrounding new product launches. These subjective norms arise both formally (from the company) and informally (from the salesperson’s coworkers). Formally, companies are likely to invest more resources and provide support when a product is innovative and unique as they attempt to recapture R&D expenses. These extra resources should increase the product’s chance of success in salespeople’s minds. Company support may take different forms such as providing the salespeople with details and promotional materials for the new product, quantifying the income possibilities from selling the new product, sales and product managers emphasizing new product sales during sales meetings, offering technical support or service support to customers, and offering negotiable pricing policies and flexible payment plans. These strategies enhance salespeople’s selling intention by creating a positive feeling about the ease and feasibility of selling the new product, along with forming expectations—norms of behavior—across the sales force, such that salespeople feel pressure from important others to sell the new product. Further, with an innovative and unique product in hand, companies may design a special bonus plan or internal evaluation system, including extra recognition for selling the new product. Empirical research demonstrates that such promotional influence from managers creates an internal environment in which salespeople more easily develop a positive intention to sell the new product (Atuahene-Gima 1997). Informally, subjective norms can develop out of the salesperson’s relationships with his or her coworkers. As an example, friendly competition among salespeople can create an environment that increases the individual salesperson’s intention to sell the new product. It is also important to note that slight changes in any number of factors are capable of dramatically changing the salespeople’s situational landscape and, thus, their intention to sell the new product.

Referring back to the findings of Ahearne, Rapp, and Rich (2006) discussed above, we maintain that the product innovativeness—intention to sell relationship will be positive, especially because our context is characterized as “trade selling” rather than “missionary selling” (Johnston and Marshall 2006). Clearly, if salespeople have a positive opinion about a product, they will have a greater intention to sell it. Any level of success in sales is predicated on the salespeople’s belief that they are offering something worthwhile to a buyer. This belief is why many salespeople view their job as a service to the buyer and why they often feel confident and even assertive in a sales call. To them, it would be a disservice not to try their hardest to help their clients obtain the benefits associated with whatever they sell, particularly a new product.

Hypothesis 2: Salespeople’s perceived product innovativeness is positively related to intention to sell the new product.

Customer Newness and Selling Intentions

Customer newness describes the degree to which the target customer segment is viewed as one with no relationship with the salesperson or the selling company. Like product innovativeness, customer newness involves both salesperson attitudes and subjective norms. First, we look at salesperson attitudes.

It is well known that salespeople tend to take the path of least resistance. For example, given the choice between calling on an existing client base and working a new territory to establish brand new clients, the salespeople will generally call on existing clients. To salespeople, this represents a more efficient use of their limited time. Research supports this notion with the finding that it costs five times as much to acquire a new client than it does to keep an existing one (Desatnick 1988; File and Prince 1994). Particularly, if salespeople’s pay is commensurate with generating revenue, they will have a less-favorable attitude toward calling on newer customers who are perceived to have a lower probability of buying and would therefore be a riskier use of the salesperson’s time. To clarify, it is possible that the new customer would not have a lower probability of purchasing the new product. Perhaps the customer has been looking for, but unable to find, a product like that being offered by the salesperson’s company. In this case, the newer customer would have a high probability of buying. Nevertheless, the salesperson is faced with uncertainty when selling to newer customers, and the perceived risk of rejection from new customers pushes salespeople to the edge of their comfort zone (even if their perceptions do not accurately represent reality). Unlike selling a new product to existing customers, if new prospects reject the new product, salespeople are less likely to cross-sell other products to them. This suggests a negative relationship between customer newness and salespeople’s selling intention.

To address the subjective norms associated with customer newness, we must look at salespeople in light of their boundary-spanning function. As boundary spanners, salespeople actually have two sources of work-related subjective norms—their company (boss and coworkers) and their cus-
tomers (Singh 1998). This predicament is amplified when one considers that the salespeople’s compensation is more related to what happens with the customer than with the employer. For our purposes, this fact forces us to consider the variability of subjective norms depending on the newness of the customers. What are the new customers’ expectations compared to those of well-established customers? How do these subjective norms fit with those from the company?

When a customer segment is new, the company, and therefore the salespeople, may not fully understand its needs and preferences. This can create some level of doubt on the part of the salespeople that the new product will indeed meet the customer segment’s needs. Even when extensive marketing research has been conducted, there is a window for error. This would, in turn, dampen salespeople’s confidence in selling the new product. The detrimental effect of customer newness on salespeople’s confidence may eventually impede their intention to sell the new product (Vroom 1964), particularly when salespeople have other products in their portfolio. In other words, they may intend to allocate less time, energy, and effort in selling the new product to unfamiliar customer segments because the risks are greater than selling a new product to existing customers. They may also fear losing a new customer if they “come on too strongly” before establishing the level of trust enjoyed with existing customers. Thus, we propose that

\textit{Hypothesis 3: Salespeople’s perceived customer newness is negatively related to salespeople’s intention to sell.}

**Salesperson Selling Intention as a Key Mediating Variable**

One underlying assumption many scholars share in the new product literature is that new product innovativeness leads to better new product performance (e.g., Chandy and Tellis 1998). Interestingly, however, empirical research focusing on the relationship between product innovativeness and new product performance does not provide conclusive evidence (see Song and Montoya-Weiss 1998). For example, Cooper (1979a) finds that the uniqueness/superiority of a new product is associated positively with a higher success rate of new products; yet Cooper and de Brentani (1991) fail to establish product newness as a significant predictor of new product success. Kleinschmidt and Cooper (1991) argue for a U-shaped relationship between product innovativeness and product success—that is, that highly innovative and noninnovative products are more successful than moderately innovative products.

Although it is beyond the scope of this study to explore all possible causes, we believe one explanation for these mixed results is that researchers have largely ignored the role of the sales force during the process of new product launches. Inasmuch as products with unique new features tend to have higher market potential, it is likely that this market potential cannot be effectively commercialized without sufficient support from the company’s sales force, especially for companies operating in industries in which the sales force serves as the primary communication vehicle (e.g., industrial goods companies; Atuahene-Gima and Michael 1998). Thus, the salesforce’s intention to sell the new product is likely to mediate the relationship between new product characteristics and new product performance.

The sales force connects the company’s products to key customer segments as salespeople are the primary means of communication for many industrial companies (Zoltners, Sinha, and Zoltners 2001). From prospecting for customers and presenting the new product message to closing the sale and servicing the account, the sales force’s efforts convey positive information to customers, enhance their attitude toward adopting the new product, and eventually, influence new product performance positively. Different customers may weigh new product features differently. Adaptive selling equips salespeople to choose from an array of selling approaches to best present the products to target customers (Spiro and Weitz 1990; Weitz, Sujan, and Sujan 1986). This also leads to better new product performance. In addition, the presence of a capable and reliable salesperson helps customers overcome the uncertainty associated with new product adoption. Without the sales force’s intention to sell the new product, the selling firm’s ability to launch new products successfully can be significantly limited. Thus, we propose that product innovativeness will impact new product performance indirectly through salespeople’s selling intentions.

\textit{Hypothesis 4: Salespeople’s selling intention will mediate the impact of product innovativeness on new product performance.}

There is limited empirical research examining the relationship between customer newness and new product success. We posit such a relationship based on the following theoretical grounds. First, as we acknowledged earlier, it is more difficult and costly to sell to new customers than to existing customers. Without the assurance of an ongoing relationship, new customers tend to be more suspicious of a company’s products than existing customers. Using secondary historical data, Lewis (2006) illustrates that newly acquired customers have lower repurchase rates and smaller lifetime value. Similarly, Ehrenberg, Hammond, and Goodhardt (1994) find that existing customers (not new customers) tend to respond more positively to companies’ marketing efforts.

Second, when considering marketing costs, companies are less efficient selling to new customers than to existing customers. Logically, when target segments are new firms,
there is limited knowledge and understanding of their latent needs and preferences. This, in turn, leads to the less-efficient design of marketing campaigns and an inefficient alignment of marketing resources. Therefore, marketing efforts will be less effective.

Moreover, the impact of customer newness on product performance is likely to be mediated by salespeople’s selling intention. Although customer newness slows the introduction of new products, salespeople’s intentions to sell will still determine new product performance in their own territories. As we know, many industrial salespeople serve as ambassadors of their companies. The extent to which these salespeople intend to invest persistent effort such as prospecting, cold calling, and establishing relationships will decide the success (or failure) of the new product. In other words, their intention to sell is likely to offset the effect of customer newness on new product performance.

In addition, salespeople who intend to sell the new product may be more likely to customize offerings (e.g., terms and conditions) to accommodate new customers’ needs. Further, salespeople’s enthusiasm—driven by their intentions—may lead them to pursue additional resources from sales management to effectively sell the new products. Consequently, selling intention enables salespeople to become facilitators of new product success. Thus, we posit the following:

Hypothesis 5: Salespeople’s selling intention will mediate the impact of customer newness on new product performance.

METHOD

In this time-lagged study, we collected data from a group of salespeople on two new products launched in 2005. The sample for this study includes 800 salespeople working for a large multinational tool company operating in both the United States and Canada. The company provides drilling tools and other products to construction professionals. This company was selected for two reasons. First, it relies heavily on innovation commercialization as an important revenue source. In 2004, the company launched 50 new products in its North American market and added another 12 new products to its portfolio in 2005. Second, the company employs a direct-to-business customer model and depends almost exclusively on its sales force to communicate with business customers; it spends little money on product pull-through marketing campaigns such as advertising to consumers. This situation facilitates assessment of the effects of sales force intentions on new product performance.

To validate results across innovations, we collected data during two product launches. Product A was launched in August 2005 and product B in June 2005. Before these two new products were launched, one of the sales executives sent an e-mail to the salespeople encouraging participation. We collected Time-1 data using questionnaires posted on the company’s intranet. Three months after the new product was launched, we collected Time-2 data (unit sales) from company records. In total, 439 (54.9 percent) salespeople completed the survey regarding product A and 362 (45.3 percent) completed it for product B. Most of the salespeople participating in the study were male (93.3 percent), the mean age was 40.5 years, and more than 75 percent were college educated. On average, these salespeople had nearly 15 years of sales experience and had been in their present position for nearly 10 years.

Measures

We examined four constructs in this study. Three of the variables (product innovativeness, customer newness, and salespeople’s intention to sell) are self-report measures. New product performance was obtained through company records three months after the new products were launched. In addition, we measured company-assigned quotas for each salesperson as a control variable. Salespeople responded to all measurement items using a seven-point Likert-type scale. The items are listed in Table 1.

**Table 1**

<table>
<thead>
<tr>
<th>Measurement Item</th>
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<tbody>
<tr>
<td><strong>Product Innovativeness</strong></td>
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<tr>
<td>NEWPROD is one of the first products of its kind in the market.</td>
</tr>
<tr>
<td>NEWPROD is totally new to the market.</td>
</tr>
<tr>
<td>NEWPROD represents a new product category for our company.</td>
</tr>
<tr>
<td>NEWPROD is highly innovative.</td>
</tr>
<tr>
<td><strong>Customer Newness</strong></td>
</tr>
<tr>
<td>I have not previously provided product/service to this customer segment.</td>
</tr>
<tr>
<td>This customer segment is new to me.</td>
</tr>
<tr>
<td>I have substantial knowledge of this customer segment. (reverse scored)</td>
</tr>
<tr>
<td><strong>Salespeople’s Intention to Sell</strong></td>
</tr>
<tr>
<td>Compared to other salespeople, how much time do you anticipate spending on selling the NEWPROD?</td>
</tr>
<tr>
<td>how intensely do you anticipate working to sell the NEWPROD?</td>
</tr>
<tr>
<td>how much overall effort do you anticipate putting into selling the NEWPROD?</td>
</tr>
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</table>

**Hypothesis 5:** Salespeople’s selling intention will mediate the impact of customer newness on new product performance.
firm from a salesperson’s perspective. It was measured with a four-item scale adapted from Wu, Balasubramanian, and Mahajan (2004). The internal consistencies of these measures are satisfactory for both products (see Tables 2 and 3).

Customer Newness

We measured salespeople’s perception of customer newness with three items. These measures were developed using procedures recommended by Churchill (1979). Specifically, after specifying the domain of the construct, we generated a pool of eight items based on a literature review and discussions with colleagues with substantial experience in empirical research. To ensure relevance to a sales context, we subsequently discussed the items with salespeople and sales managers to confirm applicability. Retaining the three most appropriate items, we asked study participants to what degree they viewed the target customer segment as unfamiliar and new to them as compared to other customer segments. Using these items, we collected data concerning product B in June 2005. Estimates of reliability and analysis of the factor structure confirmed the adequacy and appropriateness of the measure (Churchill 1979). The measure was cross-validated on product A, which was collected in August 2005. Once again, we found the measure behaved as expected.

Intention to Sell

We measured salespeople’s intention to sell the new product with three items adapted from Brown and Peterson (1994). We asked study participants how much effort (time, intensity, and overall effort) they anticipated putting into selling the new product compared to other salespeople. The internal consistencies of the intention to sell were satisfactory. In essence, the construct of intention to sell captures salespeople’s perception of the effort they will exert in the future. In the sales literature, it is typical to measure sales effort by asking salespeople to rate how they compare with others in the company. Some examples include Atuahene-Gima and Michael (1998), Brown and Peterson (1994), and Krishnan, Netemeyer, and Boles (2002).

Performance

Performance was measured by the actual number of units sold 90 days after the new product launch according to the

### Table 2

<table>
<thead>
<tr>
<th></th>
<th>Means</th>
<th>Standard Deviation</th>
<th>Product Innovativeness</th>
<th>Customer Newness</th>
<th>Intention to Sell</th>
<th>Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Product A</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Product innovativeness</td>
<td>3.33</td>
<td>1.41</td>
<td>0.84</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Customer newness</td>
<td>2.31</td>
<td>1.28</td>
<td>0.23&lt;sup&gt;***&lt;/sup&gt;</td>
<td>0.87</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intention to sell</td>
<td>4.88</td>
<td>1.00</td>
<td>0.21&lt;sup&gt;***&lt;/sup&gt;</td>
<td>-0.17&lt;sup&gt;***&lt;/sup&gt;</td>
<td>0.95</td>
<td></td>
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<tr>
<td>Performance</td>
<td>5.04</td>
<td>6.69</td>
<td>-0.07</td>
<td>-0.28&lt;sup&gt;***&lt;/sup&gt;</td>
<td>0.28&lt;sup&gt;***&lt;/sup&gt;</td>
<td></td>
</tr>
<tr>
<td>Quota</td>
<td>20.27</td>
<td>15.98</td>
<td>-0.16&lt;sup&gt;***&lt;/sup&gt;</td>
<td>-0.28&lt;sup&gt;***&lt;/sup&gt;</td>
<td>0.14&lt;sup&gt;***&lt;/sup&gt;</td>
<td>0.43&lt;sup&gt;***&lt;/sup&gt;</td>
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<tr>
<td><strong>Product B</strong></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Product innovativeness</td>
<td>3.35</td>
<td>1.45</td>
<td>0.82</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Customer newness</td>
<td>3.48</td>
<td>1.08</td>
<td>0.16&lt;sup&gt;***&lt;/sup&gt;</td>
<td>0.83</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intention to sell</td>
<td>4.53</td>
<td>1.47</td>
<td>0.12&lt;sup&gt;***&lt;/sup&gt;</td>
<td>-0.26&lt;sup&gt;***&lt;/sup&gt;</td>
<td>0.97</td>
<td></td>
</tr>
<tr>
<td>Performance</td>
<td>25.95</td>
<td>45.00</td>
<td>-0.04</td>
<td>0.00</td>
<td>0.35&lt;sup&gt;***&lt;/sup&gt;</td>
<td></td>
</tr>
<tr>
<td>Quota</td>
<td>56.52</td>
<td>54.35</td>
<td>-0.07</td>
<td>-0.01</td>
<td>0.33&lt;sup&gt;***&lt;/sup&gt;</td>
<td>0.44&lt;sup&gt;***&lt;/sup&gt;</td>
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Notes: Cronbach’s alphas for each of the measures are on the main diagonal. **p < 0.01.

### Table 3

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<tr>
<td></td>
<td><strong>Product A</strong></td>
<td><strong>Product B</strong></td>
</tr>
<tr>
<td>Product Innovativeness</td>
<td>0.85</td>
<td>0.82</td>
</tr>
<tr>
<td>Customer Newness</td>
<td>0.88</td>
<td>0.85</td>
</tr>
<tr>
<td>Intention to Sell</td>
<td>0.94</td>
<td>0.97</td>
</tr>
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</table>
company’s sales records. The 90-day frame is commonly used in the sales literature (Brown, Cron, and Slocum 1998). To ensure comparability, the same time frame was used for both products. The average number of units sold was 5.04 (standard deviation [SD] = 6.7) for product A and 25.95 (SD = 45.0) for product B.

**Quota**

We used the sales quota assigned to each salesperson as a control variable. It was measured as the actual number of units assigned by the company to each salesperson prior to each new product launch. According to our interviews with marketing and sales managers, the quota setting is a function of territory potential and historical sales data. The average quota assigned was 20.32 (SD = 15.98) for product A and 56.52 (SD = 54.35) for product B.

**RESULTS OF CONFIRMATORY FACTOR ANALYSES**

We conducted an overall confirmatory factor analysis on all items to examine the adequacy of the construct measures. For both products, all items loaded significantly ($p < 0.01$) on their hypothesized factors. For product A, the comparative fit index (CFI) was 0.99, the root mean square error of approximation (RMSEA) was 0.036, and the chi-square statistic was 50.25 (degrees of freedom [df] = 32, $p < 0.05$). For product B, the CFI was 0.99, the RMSEA was 0.052, and the chi-square statistic was 62.87 (df = 32, $p < 0.01$). These fit statistics suggest that both models (for products A and B) fit the data satisfactorily. The satisfactory fit also validates the measurement scales (Churchill 1979).

To further estimate construct reliabilities, we calculated Bagozzi’s (1980) $\rho$ and Fornell and Larcker’s (1981) $\rho_{w|q}$. The former is a measure of the proportion of shared variance to error variance in the constructs, whereas the latter is a measure of the average variance extracted from the items by each construct. The $\rho$s were above the threshold value of 0.70 (Nunnally 1978) and the $\rho_{w|q}$s were greater than the threshold value of 0.50 (Fornell and Larcker 1981). These results demonstrate satisfactory reliabilities and convergent validity (see Table 3).

We demonstrated discriminant validity in two ways. First, following Fornell and Larcker (1981), we tested whether the average variance explained by a construct’s items was greater than the construct’s shared variance with every other construct. Empirically, we tested whether $\rho_{w|q}$ was greater than the square of the intercorrelations. All constructs demonstrated discriminant validity because their average variances explained were greater. Second, following Anderson and Gerbing (1988), we constrained the correlation between each pair of constructs, one at a time, to equal 1. Because the test confirmed that all correlations among the latent constructs were significantly less than 1.0, we concluded that each construct was empirically distinct.

Several procedural and statistical remedies have been employed to minimize the effects of a potential common method bias threat (e.g., Podsakoff et al. 2003). First, we collected the data from different sources. Specifically, we surveyed salespeople on their perceptions and intentions to sell and collected objective new product performance data from company records. Second, before surveying the salespeople, we pretested the scales and deleted ambiguous and potentially confusing items based on feedback from a sample of salespeople and sales managers. Third, we conducted an exploratory factor analysis (EFA) on all items. The analysis revealed that there existed three factors (as expected), all having eigenvalues greater than 1. Further, the Harmon one-factor test did not identify any general factor that accounted for the majority of covariance among all measures (Podsakoff et al. 2003). In fact, the first factor explained only 33 percent of the variation. Collectively, these results suggest that a common method bias is unlikely to be a significant threat to our research.

To estimate the effect of a potential nonresponse bias, we used the approach of “comparison of known values for the population” (Armstrong and Overton 1977, p. 396). In particular, we compared the selling targets and outcomes of salespeople who completed our survey with company averages for all salespeople. We collected the new product performance for all sales territories in which product A was sold three months after its launch. In addition, we obtained each individual salesperson’s target (i.e., quota) set by the company before the new product launch. Tests of equality showed that neither new product performance ($Z = −0.718; \text{n.s.}$), nor selling quota ($Z = 1.447; \text{n.s.}$) of salespeople in our sample significantly differed from the company’s averages. We repeated the procedure for product B. The results showed that both quota ($Z = −0.237; \text{n.s.}$) and performance ($Z = 1.684; \text{n.s.}$) of salespeople who completed our survey were equivalent to company averages. These results suggest that nonresponse bias also is unlikely to be a significant threat to our study.

**HYPOTHESES TESTING**

We then estimated the hypothesized structural model with the measurement model being run simultaneously. In addition, we conducted indirect tests to examine the hypothesized mediating effects of $H_4$ and $H_5$. Fitting the hypothesized models (of both products) to the data resulted in satisfactory goodness-of-fit indices (see Table 4). In summary, the data from product B provided support for all five hypotheses, whereas four of the five hypotheses were supported for product A. We used quota
as a proxy indicator of sales potential of the new product in each territory. As territory potential may contribute to new product performance, controlling for its effects enabled us to estimate more accurately the impact of product innovativeness and customer newness. To operationalize, we added quota to the structural model and reran the estimation. Interestingly, for both products, all relationships remained approximately the same (see Table 5). This indicates the robustness of the estimated relationships.

As expected, salespeople’s intention to sell positively affected new product performance (supporting H1). This significant effect held for both products, which confirmed the importance of salespeople’s selling intention during new product launches. Product innovativeness and customer newness had a direct impact on salespeople’s intention to sell. For both products, the impact of product innovativeness on salespeople’s intention to sell was significant and positive (supporting H2), whereas that of customer newness was significant and negative (supporting H3).

To test H4, we investigated the direct impact of product innovativeness and customer newness on new product performance before examining their indirect effects. We conducted indirect tests by following the approach suggested by Duncan (1975). As expected, the direct link between product innovativeness and new product performance was not statistically significant for either product. Further testing showed that product innovativeness indirectly affects product performance through salespeople’s selling intention. Specifically, product

### Table 4

<table>
<thead>
<tr>
<th>Relationships</th>
<th>Product A Coefficients</th>
<th>Product B Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intention to Sell on New Product Performance (H1)</td>
<td>0.27**</td>
<td>0.23**</td>
</tr>
<tr>
<td>Product Innovativeness on Intention to Sell (H2)</td>
<td>0.28**</td>
<td>0.25**</td>
</tr>
<tr>
<td>Customer Newness on Intention to Sell (H3)</td>
<td>–0.23**</td>
<td>–0.52**</td>
</tr>
<tr>
<td>Product Innovativeness on New Product Performance (H4)</td>
<td>–0.09</td>
<td>–0.08</td>
</tr>
<tr>
<td>Customer Newness on New Product Performance (H5)</td>
<td>–0.18**</td>
<td>0.04</td>
</tr>
<tr>
<td>( \chi^2 ) (df)</td>
<td>61.96 (39)</td>
<td>72.12 (39)</td>
</tr>
<tr>
<td>( p )-Value</td>
<td>0.01</td>
<td>0.001</td>
</tr>
<tr>
<td>CFI</td>
<td>0.99</td>
<td>0.99</td>
</tr>
<tr>
<td>GFI</td>
<td>0.97</td>
<td>0.96</td>
</tr>
<tr>
<td>AGFI</td>
<td>0.96</td>
<td>0.94</td>
</tr>
<tr>
<td>RMSEA</td>
<td>0.037</td>
<td>0.048</td>
</tr>
</tbody>
</table>

** \( p < 0.01 \).**

### Table 5

<table>
<thead>
<tr>
<th>Relationships</th>
<th>Product A Coefficients</th>
<th>Product B Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intention to Sell on New Product Performance (H1)</td>
<td>0.22**</td>
<td>0.16**</td>
</tr>
<tr>
<td>Product Innovativeness on Intention to Sell (H2)</td>
<td>0.28**</td>
<td>0.25**</td>
</tr>
<tr>
<td>Customer Newness on Intention to Sell (H3)</td>
<td>–0.22**</td>
<td>–0.52**</td>
</tr>
<tr>
<td>Product Innovativeness on New Product Performance (H4)</td>
<td>–0.032</td>
<td>–0.046</td>
</tr>
<tr>
<td>Customer Newness on New Product Performance (H5)</td>
<td>–0.11*</td>
<td>–0.024</td>
</tr>
<tr>
<td>Quota on New Product Performance</td>
<td>0.38**</td>
<td>0.34**</td>
</tr>
<tr>
<td>( \chi^2 ) (df)</td>
<td>118.69 (49)</td>
<td>101.73 (49)</td>
</tr>
<tr>
<td>( p )-Value</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>CFI</td>
<td>0.98</td>
<td>0.98</td>
</tr>
<tr>
<td>GFI</td>
<td>0.96</td>
<td>0.96</td>
</tr>
<tr>
<td>AGFI</td>
<td>0.93</td>
<td>0.93</td>
</tr>
<tr>
<td>RMSEA</td>
<td>0.057</td>
<td>0.055</td>
</tr>
</tbody>
</table>

* \( p < 0.05 \); ** \( p < 0.01 \).
innovativeness had a positive indirect impact on new product performance. We conducted a Sobel test (1982) to examine the significance of this relationship. For both products A and B, the indirect impact was significant. Therefore, H4 was supported.

We used the same approach to test H5. Similarly, the mediation test revealed that customer newness affected new product performance also indirectly (i.e., through salespeople’s intention to sell). This indirect effect was negative and significant for both products based on results of the Sobel test. However, testing for direct effects generated mixed results. For product B, the direct relationship was not statistically significant (supporting H5). For product A, the direct relationship was negative but significant (i.e., H5 was not supported). These effects are reported in Table 6. Again, H5 is supported in one case but not in the other.

**DISCUSSION**

This study makes three main contributions to the research on NPD. First, in a time-lagged design, we captured subjective, self-reported data on salesperson selling intentions and the impact of those intentions on objective new product performance data for two separate products. This design enabled us to examine the power of selling intentions on actual new product performance. Consistent with TRA, we found that salespeople’s behaviors toward promoting new products can be predicted months before a new product is introduced to the market by capturing salespeople’s intentions to sell the new product.

Second, we examined the effect of product innovativeness and customer newness on new product performance and the potential mediation effect of salespeople’s selling intention, an area that has been underresearched to date. By examining two particular drivers of salesperson selling intentions—product innovativeness and customer newness—we are able to suggest strategies and tactics that are managerially relevant. For example, sales and product managers should carefully frame new product introductions around how “new” the products are that are being introduced. Analogous to the research on radical innovations (e.g., Chandy and Tellis 1998), we propose that managers focus on the following when promoting a new product to their salespeople. To what extent is the new product (1) the first product of its kind in the market, (2) totally new to the market, (3) representative of a new product category for the company, and (4) highly innovative? Our study results suggest that the degree to which managers can sell their salespeople on the above will predict their salespeople’s intentions to sell the new product.

Third, we introduced a new scale that measures salespeople’s perceptions of customer newness. This was important because often selling companies target new customer segments with their new products. Thus, we were interested in the impact of salespeople’s perceptions of new customer segments on salespeople’s intention to sell new products. Interestingly, we found direct and indirect effects of customer newness on actual new product performance. Four of our five hypotheses were supported. Taking the three contributions together, we offer the following theoretical and managerial implications.

**Salespeople’s Intention to Sell is Critical to New Product Success**

The results of this study confirmed the importance of salespeople’s selling intentions during new product launches, which, at a broad level, underscores the importance of the sales force in new product launches. For both products, we found a positive and significant relationship between salespeople’s intention to sell a new product and the performance of that product. Our study reinforces the importance of motivating salespeople particularly during new product introductions. Specifically, managers should direct their attention to evaluating sales-
people’s intentions to sell a new product prior to introducing the new product. From an academic perspective, marketing strategy scholars should consider the important role of the sales force in ensuring new product success. This omission in prior research could help explain the contradictory findings on which we elaborated earlier in this paper.

**Product Innovativeness Affects New Product Performance Through Selling Intentions**

Interestingly, the direct link between product innovativeness and new product performance was not statistically significant for either product. Instead, product innovativeness influences new product performance indirectly through salespeople’s intention to sell. Perhaps, our study offers an alternative explanation for conflicting empirical results regarding the product innovativeness–performance relationship; the conflicting empirical results in the existing literature could be due to the underresearched influence of salespeople’s selling intention as an intervening variable.

**Customer Newness Is an Important and Complex Issue**

We found that customer newness lowered salespeople’s intentions to sell the new product, which echoes the empirical findings in other selling contexts that salespeople are less enthusiastic about selling new products to unfamiliar prospects. At first glance, this finding would suggest that salespeople would rather sell new products to existing customers than sell new products to new customers. This tendency may not be all bad. Customer relationship management suggests that it is more profitable to focus efforts on existing customers than on new customers. Having new products to sell to existing customers could deepen the interpersonal relationships between salespeople and their existing customers and increase customer loyalty. However, often a primary thrust for introducing new products is to capture new customer segments. Thus, selling companies need to more carefully evaluate their selling strategies when targeting new customer segments. For example, deploying salespeople who exhibit more “hunting” characteristics to new customer segments while deploying those who are more “farmers” to existing customer segments could enhance overall sales force efficiency (Zoltners, Sinha, and Zoltners 2001). Also, referring back to our earlier discussion of subjective norms, selling companies could utilize the organizational activity surrounding the new product launch to encourage their salespeople to reach out to newer customers. This could be accomplished by having product managers and sales managers quantify the unique earning potential associated with new customer segments, perhaps along with a modified compensation plan, depending on the firm’s objectives.

Interestingly, we also found a significant direct effect of customer newness on actual new product performance. The direct impact of customer newness on new product performance differed from product A to product B. Following the study, we had informal conversations with company marketing and sales managers who revealed that the company spent considerably more marketing effort (e.g., push-type incentives to the sales force) on promoting product A as compared to product B during the new product launches. This may explain the existence of a direct effect for product A but not for product B. These findings unveil future research opportunities regarding NPD and sales force management.

**FUTURE RESEARCH AND LIMITATIONS**

We caution researchers and managers regarding the limitations of this study in interpreting and generalizing our findings. Although the important role of the sales force during new product launches has been suggested in some studies (Atuahene-Gima 1997), the extent that sales force intentions contribute to new product performance may vary by industry. Further, the mediating role of intention to sell a new product in the product innovativeness–new product performance relationship offers an alternative explanation of inconsistent findings in the marketing strategy literature. However, the effect is likely contingent upon industry type. Because both samples were collected from one organization, this could potentially affect the generalizability of our findings. Of course, the benefit of using one organization is that we were able to control for extraneous effects (e.g., different reward systems). Still, additional investigations in other industries are clearly needed to validate the reported results herein.

As an early research attempt to delineate the sales force’s role in new product launches, the results presented in this study can be used for meaningful extensions and interesting research possibilities. One relevant research question is, given that salespeople’s intention to sell serves as an important intervening variable and that both product innovativeness and customer newness impact new product performance indirectly through salespeople’s intention, what specific strategies should sales managers take to improve new product performance? Also, what are the other intervening variables that could be involved, besides intention to sell, in the relationships among product innovativeness, customer newness, and new product performance? Furthermore, would the results found in this study differ when considering incremental versus radically new products?

Future research should examine the extent to which having new products to sell to existing customers in fact deepens the interpersonal relationships between salespeople and their existing customers and increases customer loyalty. Also, what is the ideal mix of incentives to motivate salespeople to sell
new products and new customers? For example, how do managers deploy the proper balance of outcome-based and behavior-based control mechanisms to enhance salespeople's intention to sell a new product? Further, how do these different control mechanisms interact with the characteristics of the new product innovation (e.g., radically new versus incremental)? Future research addressing these questions would enhance our understanding of the important role of the sales force in new product launches.

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