Cross-Selling Performance in Complex Selling Contexts: An Examination of Supervisory- and Compensation-Based Controls

Although cross-selling offers significant benefits for both vendors and customers, three-quarters of all cross-selling initiatives fail, typically for sales force–related reasons. Prior research examining the antecedents of salespeople’s product adoption has not yet shown whether or under which conditions such adoption behavior leads to better salesperson cross-selling performance. The authors develop a model of the role of supervisory behavior, compensation-based controls, and their interactions in enhancing the effect of salespeople’s adoption behavior on cross-selling performance in a complex selling context. To test the model, the authors use a matched, multilevel data set from company records and surveys of salespeople and sales managers working in a biotech firm. The analysis shows that transformational leadership enhances the effect of salespeople’s product portfolio adoption on cross-selling performance, whereas transactional leadership diminishes the effect. Furthermore, the effect of leadership type depends on whether cross-selling incentives are provided: the positive performance effect of transformational leadership is crowded out when monetary incentives are provided, and the negative effect of transactional leadership becomes even more negative. These results have significant theoretical and managerial implications.

Keywords: sales management, cross-selling, business-to-business marketing, leadership behavior, compensation

Cross-selling offers significant potential benefits for both vendors and customers. A study by McKinsey & Company shows that a firm can gain as much as ten times more revenue from a customer by increasing its share of wallet through cross-selling rather than by focusing on customer retention strategies (Coyles and Gokey 2002). By cross-selling to existing customers, vendors can generate more growth opportunities, stronger customer ties, and greater profitability (Kamakura 2008; Kamakura et al. 2003). Customers benefit through more efficient buying processes and higher rebates as a result of higher purchasing volumes per vendor (Kamakura et al. 2003; Tuli, Kohli, and Bharadwaj 2007).

Despite these possible benefits, customer relationship management specialists claim that three-quarters of all cross-selling initiatives fail (DeGabrielle 2007). Homburg and Schaefer (2006) report that firms from engineering and chemical industries realize only approximately one-third of their customers’ cross-buying potential. What causes this gap between cross-selling potential and its realization? Malms (2012) reports that 58% of critical incidents leading to failure of cross-selling realization are related to salespeople and 26% are related to sales managers.

Although cross-selling is important in a wide range of contexts, research to date has focused mainly on the consumer context, which involves standardized products, repetitive selling procedures, and a large number of transactions: these contexts include retailing (e.g., Netessine, Savin, and Xiao 2006), insurance services (e.g., Ansell, Harrison, and Archibald 2007), and banking (e.g., Li, Sun, and Wilcox 2005), among others. Research on cross-selling in complex business-to-business (B2B) contexts—characterized by technical complexity; few, infrequent transactions; large economic value of transactions; buying-center involvement; heterogeneous customer requirements; long-term decision processes; and highly individualized solutions—has largely been neglected. The differences between such complex con-

1We define “cross-selling” as selling additional items that differ from those a customer has purchased or has expressed an interest in buying previously. We define “cross-selling performance” as the extent to which a salesperson taps his or her customers’ buying potential for such additional items. We provide formal definitions of cross-selling and cross-selling performance in the “Conceptual Framework” section.

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texts and those studied to date might lead to different reasons for cross-selling underperformance and different implications for improvement. Consider the situation in this stylized example:

XYZ Corp. has two divisions: fermentation plants and filtering applications. A sales rep, Ellen, is qualified to sell and is knowledgeable about both sets of products. Ellen sells fermentation plants to ABC Corp. and filtering applications to DEF Corp. (but no fermentation plants). DEF Corp. is a large manufacturer of pharmaceutical ingredients with a detailed, complicated buying process. For most of the products she has sold to DEF, Ellen needed several years to close the sale. Ellen has met regularly with many people at DEF for more than a decade and feels confident that she has a deep understanding of their business. DEF Corp. also has a need for fermentation plants, a need that Ellen has not addressed so far: Ellen is underachieving in cross-selling potential at DEF.

Existing research has identified sales force adoption of a firm’s product portfolio as a necessary condition to support cross-buying (Atuahene-Gima 1997; Schmitz 2013; Wieseke, Homburg, and Lee 2008). Salespeople often have insufficient knowledge about the full range of a firm’s products and how they might meet the needs of their existing customers (Malms and Schmitz 2011); thus, they focus on the proven sellers in their product portfolio that they know best (Wieseke, Homburg, and Lee 2008). However, in our example, Ellen sells both types of products; thus, she has adopted the full product portfolio but has neglected selling fermentation plants to DEF Corp. What can XYZ do to improve Ellen’s cross-selling performance?

Firm management has several levers to consider, primarily leadership behaviors and monetary incentives—referred to as supervisory-based and compensation-based control, respectively. Duclos, Luzzardo, and Mirza (2008, p. 13) highlight the role of leadership behavior, arguing that “salespeople resist cross-selling, so management must address their misgivings head on and convince them of its benefits.” A stream of research has examined the performance effects of leadership behaviors in the sales area (e.g., MacKenzie, Podsakoff, and Rich 2001; Morhart, Herzog, and Tomczak 2009). Another research stream focuses on the role of monetary incentives: a study of 250 sales executives reveals that 30% of firms’ compensation programs failed to reward their salespeople’s right behavior sufficiently (Deloitte 2010). According to Marchetti (1999, p. 58), a “sales compensation plan is probably the most important sales tool.” Next, consider the following situation with Ellen and XYZ:

XYZ is considering several supervisory- and compensation-based control mechanisms to address this issue. Sales management at XYZ could use a carrot-and-stick approach with its employees—telling Ellen in detail what, when, and how to cross-sell to her customers, closely monitoring her, and publicly highlighting her performance both when it is exceptional and when it is subpar.

Our research shows that such transactional leadership behavior leads to lower cross-selling performance than if the firm leaves it to Ellen to determine how to address cross-selling with her customers on her own. XYZ also provides direct monetary incentives to reward desired cross-selling behaviors; those incentives reinforce the negative effect of transactional leadership and lead to even lower cross-selling performance.

XYZ’s top management is also considering an alternative method: transformational leadership behavior. Rather than having sales managers be directive, XYZ is considering having them emphasize and explain the great opportunities associated with cross-selling to raise Ellen’s motivation, to encourage her creativity, and to inspire her to find optimal solutions to address additional customer needs. This approach also gives Ellen the freedom and flexibility to decide how and when to cross-sell to her customers.

Our research shows that such transformational leadership behavior will take advantage of Ellen’s ability because it will increase her intrinsic motivation and will lead to an improvement in her cross-selling performance.

However, our findings indicate that if XYZ adds a direct monetary incentive, it will counteract the intrinsically motivated effect generated by the transformational leadership behavior and will reduce Ellen’s performance. In summary, we show that in such complex contexts, cross-selling performance is highest when it is driven by strong transformational leadership behavior without provision of any specific cross-selling incentives.

Our research provides both the theoretical framework and empirical support for these findings. We use a matched, multilevel data set from a large biotech firm, employing both company records and surveys of salespeople and sales managers. We build a model in which we conceptualize sales manager leadership behaviors as potentially supportive and constrain boundary conditions that affect if and to what extent salespeople’s adoption of a firm’s product portfolio translates into cross-selling performance.

We anchor our work on personal identification and cognitive evaluation theories, and we posit and find that in a complex context, transformational leadership behavior enhances cross-selling performance by stimulating salespeople’s intrinsic motivation, whereas transactional leadership behavior impedes cross-selling performance because it reduces (qualified) salespeople’s freedom to act. Our model uses motivation crowding theories to understand the interaction between supervisory- and compensation-based controls. We hypothesize and find that the effect of leadership behaviors depends on whether cross-selling incentives are provided: the positive performance effect of transformational leadership is crowded out by monetary incentives, and the negative effect of transactional leadership becomes even worse.

We proceed as follows: We first develop our conceptual framework and hypotheses. Then, we describe the data and our methodology. Next, we present our findings, and finally, we discuss their managerial, theoretical, and methodological implications as well as the limitations of our research.
Conceptual Framework

Preliminary Qualitative Interviews

We have noted that most published work on cross-selling focuses on simple offerings in the consumer marketplace rather than on the complex cross-selling situations that are typical in many industrial sectors. To better understand the phenomenon in such complex selling contexts and to refine and support our model, hypotheses, and methodology, we conducted qualitative interviews at the firm where we did our empirical study. We provide detailed information about the interviews in Appendix A.

The interviews revealed many specific characteristics of the customer context and the cross-selling task. For example, in the context of our study, salespeople must deal with technologically complex requirements, specialized customer personnel, extensive buying processes, multiple buying-center participants, long decision periods, heterogeneous purchasing needs, highly customized offerings and selling processes, and long-term personal relationships. A salesperson summarized, “They are all high-tech products; I don’t sell any lollipops” (Interview SP4). In addition, the cross-selling task in such contexts is highly customized, requiring the salesperson to have both deep customer knowledge and the ability to coordinate the involvement and support of technical specialists. Such customization makes standardization of the cross-selling processes in this context nearly impossible.

The salesperson’s highly specific customer knowledge enables him or her to become a long-term partner who is deeply involved in the customers’ value creation process. The interviews we conducted suggest that the high degree of salespeople’s situation-specific knowledge and customer involvement means that sales managers have only limited ability to give specific advice on how and when a salesperson should perform certain cross-selling activities in projects with specific customers. Rather, sales managers are better positioned to motivate and support the salesperson and coordinate activities with other internal departments.

For example, one of the salespeople noted that “the sales manager can help to build a connection with other departments … when you’re working on a project which covers multiple product areas. The sales manager can suggest that cross-selling is interesting; however, he cannot demand, ‘I expect you to realize X or Y cross-sellings per month’” (Interview SP2). Table 1 displays selections from the interview transcripts that provide support for the specific characteristics of the context we study here—a context that is more the norm than the exception in B2B markets (see Gremler and Lilien 2012).

Model Overview

We assume that the extent to which a salesperson actually taps his or her customers’ cross-buying potential (“salesperson’s cross-selling performance”) depends on how extensively the salesperson has adopted the company’s product portfolio. When a salesperson has experience in selling a broad range of a company’s product portfolio (“strong adoption”), that experience should enhance cross-selling performance because the salesperson can address more customer needs than a salesperson who focuses on a narrow set of products (“weak adoption”).

Whereas prior research has addressed antecedents of salespeople’s product portfolio adoption (e.g., Schmitz 2013), this research focuses on how salespeople’s product portfolio adoption affects cross-selling performance. We expect that differences in sales managers’ leadership behavior (transactional vs. transformational) will moderate how salespeople’s product portfolio adoption translates into cross-selling performance. We further expect that these moderating effects will depend on whether a company provides incentives for cross-selling to its salespeople. In Figure 1, we show the structure of our framework and hypotheses; we develop the theoretical rationale in the following subsections. In addition, we provide insights into nonhypothesized relationships of potential antecedents of salespeople’s product portfolio adoption (e.g., cross-selling motivation) in the “Robustness Tests” subsection.

Supervisory- and Compensation-Based Control

Much research has been devoted to explaining how companies can influence employees’ actions through compensation-based controls (e.g., Coughlan and Sen 1989; Jenkins et al. 1998; Lal and Srinivasan 1993). More recently, interest has centered on the effects of supervisors’ leadership behaviors (e.g., MacKenzie, Podsakoff, and Rich 2001; Morhart, Herzog, and Tomczak 2009). We consider both research streams and distinguish two broad categories of control, namely, compensation- and supervisory-based control.

“Compensation-based control” refers to monetary incentives designed to influence employee performance and desired behaviors (Jenkins et al. 1998) to help the firm achieve its goals (Farley 1964). As a well-established means of control, monetary incentives minimize the need for costly surveillance or monitoring in sales organizations (Coughlan and Sen 1989). In such compensation schemes, pay elements should be consistent with the firm’s objectives and depend on salespeople’s effort on desired activities.

Thus, if a firm includes product-mix incentives in the compensation scheme to motivate salespeople to sell a broader range of a company’s product portfolio, those who indeed sell a broader mix will earn higher bonuses than those who do not.

“Supervisory-based control” refers to the behavior of managers; several studies identify transformational and transactional leadership as essential antecedents of subordinates’ performance in sales contexts. Transformational leadership encourages subordinates to focus on long-term goals,
generates intrinsic motivation, and inspires them to perform beyond expectations (Bass 1985). Transactional leadership provides both positive and negative feedback (i.e., rewards and punishments) to salespeople, contingent on their effort or performance (MacKenzie, Podsakoff, and Rich 2001). Bass (1985) argues that these two leadership behaviors are complementary.

Despite general agreement that both compensation- and supervisory-based controls can be effective, research has yet to determine if and to what degree the effectiveness of each type of control is contingent on the other. In practice, salespeople often encounter both monetary incentive schemes and their manager’s leadership behaviors at the same time; thus, it is important to consider how the combination thereof affects salespeople’s behavior and performance. We examine the combination of such controls in the context of cross-selling.

### Cross-Selling as a Complex Boundary-Spanning Task

Whereas some research has investigated cross-selling as a technique or tool, one of a variety of optional instruments for managing customer relationships (e.g., Kamakura 2008), more recent research (Schmitz 2013) has viewed cross-selling as a boundary-spanning process designed to sell additional items that differ from those a customer has purchased or has expressed interest in buying previously. The item being sold can be a product, service, or some combination of the two (Li, Sun, and Wilcox 2005; Netessine, Savin, and Xiao 2006). In contrast, up-selling “involves the increase of order volume either by the sales of more units of the same purchased item, or the upgrading into a more expensive version of the purchased item” (Kamakura 2008, p. 42).

The salesperson is a central actor within the cross-selling process and performs both internal and external boundary-

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<th>Context Characteristics</th>
<th>Salesperson Quotes from Qualitative Interviews</th>
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<tr>
<td>Technologically complex requirements</td>
<td>“Imagine that you get a flu shot—the manufacturer has to absolutely prove that this medication was produced according to pharmaceutical conditions and that it is free of any germs to prevent any infection. Hence, our customers have to make huge investments in order to generate this verification which entails every single step starting from production. Questions [such as] ‘How is the filter integrated?’ ‘What kind of material is involved?’ ‘Who is the producer?’ etc. have to be answered. Hence, once this is settled and works well, customers avoid changing anything in the process” (Interview SP7).</td>
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<td>Long-term personal relationships</td>
<td>“Our industry differs from others due to very long customer relationships. The role of the salesperson does not end with the purchase of a product. It involves a lot of relationship management, which is, in my opinion, the most important issue for a salesperson now” (Interview SP3).</td>
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<td>Specialized customer personnel</td>
<td>“The customers are specialists of the products and one has to understand the specific implementation for a certain customer. The problem is that customers are the real experts for fermenters, etc. and the application in their specific production process. The salesperson has to take care not to look like a layman because otherwise [he or she] won’t be accepted as a dialogue partner” (Interview SP5).</td>
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<td>Extensive and long-term buying processes</td>
<td>“Our sales reps are working with customers along the whole development process of a new product, which can take seven years or more. As customers are technically locked in for many investment goods after the buying decision, they extensively evaluate suppliers up front. Often, many customer departments are involved in such decisions, such as R&amp;D, production, and purchasing…. The relationship with our salespeople can be a go or no-go” (Interview SD).</td>
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<td>Heterogeneous customer needs</td>
<td>“A challenge for cross-selling in this company is that salespeople do not deal with a typical customer process. The production of medication or biopharmaceutical products always differs for each customer. Thus, the salesperson not only needs to know what to sell but [also] needs a deep understanding of biotechnology and the process…. The salesperson cannot Google online, ‘How do you produce a flu vaccine?’ because every customer is doing it differently” (Interview SP2).</td>
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<td>Flexible adaptions to specific customer requirements</td>
<td>“You cannot act according to trainings when you’re with a customer because a lot of opportunities emerge from a situation…. I do not want [to be restricted by a specific list of activities] … because I need a certain degree of spontaneity to understand customers’ needs and to act according to their situation” (Interview SP1).</td>
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<td>Customized selling process</td>
<td>“It is suggested in meetings that we should ask the customers about their entire processes … but we do not have any master plans because the situation differs for every customer. You rather have to judge whether it fits for a special customer process” (Interview SP2).</td>
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<td>Support by sales manager and technical specialists</td>
<td>“I wouldn’t know how the sales manager could help me with realizing cross-selling. In general, I have more knowledge about the customer…. In cross-selling, the sales manager performs supporting activities. We try to manage things on our own. If there’s a problem, I usually collaborate with application specialists who are technically more advanced than my sales manager” (Interview SP7).</td>
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TABLE 1

Characteristics of the Industrial Customer Context
spanning behaviors (Bettencourt and Brown 2003). The internal behaviors refer to salesperson activities focused within the firm that lead to an increase of the value of what the company delivers to customers (Bettencourt, Brown, and MacKenzie 2005). For example, when cross-selling technological goods and services, salespeople must select appropriate offerings from the internal product portfolio, mobilize coworkers (e.g., technological specialists) and other departments (e.g., product divisions), and coordinate internal resources to satisfy customers’ needs. In their external boundary-spanning role, salespeople represent their company to customers and must identify customer needs and unmet buying potential, present attractive cross-selling offers, and convince customers of the associated benefits to close the cross-selling deal.

Both internal and external boundary-spanning behaviors are important for cross-selling effectiveness and must be undertaken in parallel. One salesperson we interviewed noted that “the daily challenge is to understand the products which have been added to the portfolio within the past years and to understand how they can be implemented for the customer” (Interview SP5).

**Salespeople’s Adoption Behavior and Cross-Selling Performance**

Cross-selling performance is the extent to which a salesperson actually taps his or her customers’ buying potential for additional products—those that differ from the ones the customer bought or declared an interest in buying previously. The broader a customer’s needs, the broader the selection of products and services the salesperson must be able to offer to achieve high cross-selling performance (Schmitz 2013). We define a salesperson’s product portfolio adoption as “the degree to which that salesperson chooses to sell from the entire range of products available in his or her company’s product portfolio” (Schmitz 2013, p. 58).

When a salesperson adopts the company’s product portfolio and thus chooses to sell from the entire range of available products, that choice should be observable in actual sales results. Thus, a strong indicator of a salesperson’s adoption of a firm’s product portfolio is the dispersion of sales across different product divisions (Anderson and Robertson 1995): operationally, greater concentration on a few products implies lower portfolio adoption, whereas broader dispersion indicates greater portfolio adoption. This behavioral adoption should also be correlated with but distinct from attitudinal adoption (Homburg, Wieseke, and Kuehn 2010) as well as from experience and knowledge about the product portfolio (see Atuahene-Gima 1997).

Salespeople who sell from a broad range of a company’s product portfolio must be knowledgeable and experienced with a broad range of products and able to use their product-related knowledge effectively in sales presentations (Atuahene-Gima 1997). Broader product portfolio adoption should enhance salespeople’s ability to address customer needs and create superior value for the customer. The adoption of a company’s product portfolio therefore determines how well a salesperson exploits cross-buying potential and gains higher sales volumes with his or her customers (Schmitz 2013). Thus,

**H1:** The greater a salesperson’s adoption of a company’s product portfolio, the better his or her cross-selling performance.

**Moderating Effect of Leadership Behavior**

We study sales managers’ leadership behavior as a boundary condition of the relationship between salespeople’s product portfolio adoption and their cross-selling performance. Transformational leadership behavior enhances followers’ intrinsic motivation and intellectual inspiration and creates more personal commitment to a common goal or
strategy (MacKenzie, Podsakoff, and Rich 2001; Shamir, House, and Arthur 1993). Thus, transformational leadership behavior may encourage salespeople to identify attractive cross-selling opportunities, recognize special customer needs, and satisfy those needs with a broad set of offerings from the company’s product portfolio. Furthermore, a resulting personal identification with the leader has perceptual, motivational, and behavioral effects, including followers’ feelings of involvement, commitment, proactivity, and performance (Den Hartog and Belschak 2012; Kark, Shamir, and Chen 2003; Martin and Bush 2006).

Transformational leadership behavior also enhances follower performance by delegating responsibilities and increasing perceived empowerment. According to cognitive evaluation theory, this perceived empowerment meets subordinates’ needs for both autonomy and competence, supporting their intrinsic motivation (Deci, Koestner, and Ryan 1999). In addition, it encourages creativity, leading them to develop innovative ideas that might be useful in complex selling environments (Amabile et al. 1996; Bass 1985; Kark, Shamir, and Chen 2003; Martin and Bush 2006).

Salespeople are also better able to satisfy customers and improve sales performance when they have control over their customer encounters, enabling them to align their cross-selling tactics with the specific demands of the customer interaction in real time (Weitz, Sujan, and Sujan 1986). As one salesperson noted, “With respect to cross-selling, the sales manager … could teach me his theories … and I would have to translate it … I have to understand my customers and act as a diplomat or an interpreter in between and say, ‘Okay, now I can implement it because the customer works in this way. In that situation I can apply it that way’” (Interview SP4).

Research has also shown that transformational leadership behavior can be particularly effective in dynamic, complex, and challenging conditions akin to those that characterize the context we study because subordinates strive for both direction and autonomy (Den Hartog and Belschak 2012). Thus,

H₂: The stronger the sales manager’s transformational leadership behavior, the greater the positive impact of a salesperson’s adoption of a company’s product portfolio on cross-selling performance.

Transactional leaders provide feedback contingent on salespeople’s behavioral performance as well as on their outcome performance. Transactional leadership behavior guides subordinates by specifying expectations and providing detailed guidance on how to complete tasks to achieve work goals; that is, it determines the “what, when, and where” of salespeople’s actions (MacKenzie, Podsakoff, and Rich 2001). Thus, transactional leadership behavior reduces uncertainty about how to reach objectives and supports subordinates’ instrumentality perception of path–goal relationships for desired work behaviors (e.g., cross-selling), which should enhance subordinates’ performance (MacKenzie, Podsakoff, and Rich 2001; Podsakoff et al. 2006).

Although transactional leadership behavior might be highly effective in specifying the behaviors of salespeople in simple selling situations, such behavior might be counterproductive when facing a complex sales context, in which tasks might not be programmable in a way that behaviors can be precisely predefined (Eisenhardt 1989; Stroh et al. 1996). As one salesperson noted, “The sales manager cannot contribute much; it is not part of the sales manager’s responsibility—he doesn’t join discussions with application specialists [or] with customers, and he doesn’t know the details of projects which are managed simultaneously … The sales manager is responsible for the entire team and he cannot be integrated into single projects on site. He doesn’t know the customer” (Interview SP5). The requisite flexible adaptations to specific customer situations may not match the guidance provided by the sales manager (Weitz, Sujan, and Sujan 1986), who might not be able to monitor the situation and assess the required selling behavior. Consequently, because of the low programmability of the task, transactional leadership behavior may have negative performance implications in a complex context (Singer and Singer 1990).

Moreover, transactional leadership behavior reduces salespeople’s task autonomy, which in turn lowers creativity, which has been shown to be important for task performance in complex contexts (Amabile 1979; Amabile et al. 1996). Some researchers argue that complex situations make it likely that supervisors will set the wrong goals and reward the wrong behaviors (Ordonez et al. 2009). In an interview, a salesperson remarked, “The sales manager cannot specify how to proceed with a customer to cross-sell because he doesn’t know my customers. He has never accompanied me to a customer. Hence, we need to discuss diverging perceptions in advance” (Interview SP4).

Accordingly, given the complex industrial selling context of our research, we hypothesize that salespeople who are led by strong transactional leaders are negatively affected in their cross-selling behaviors and task creativity. Thus,

H₃: The stronger the sales manager’s transactional leadership behavior, the weaker the positive impact of a salesperson’s adoption of a company’s product portfolio on cross-selling performance.

Compensation-Based Control as a Boundary Condition

We focus on how compensation-based control, a key part of the salesperson’s working environment, shapes the effectiveness of sales managers’ transformational and transactional leadership behaviors. We distinguish salespeople’s intrinsic motivation (which may be induced by transformational leadership behavior) from their extrinsic motivation, which is based on compensation. Although distinct, intrinsic and extrinsic motivations may interact.

3Intrinsic motivation, derived “directly from or inherent in the task or job itself—associated with the content of the task or job” (Dyer and Parker 1975, p. 457), reflects the extent to which salespeople find their work (e.g., cross-selling) inherently interesting and rewarding. Extrinsic motivation reflects the extent to which individuals treat their work as a means for obtaining external rewards, such as monetary compensation (Dyer and Parker 1975). In the current study, we focus on the monetary incentive for cross-selling, a specific type of compensation-based control, referring to monetary compensation provided to salespeople for the achievement of cross-selling objectives.
According to motivation crowding theory, an external reward can change a person’s intrinsic motivation (Frey and Jegen 2001) as follows. First, increased extrinsic rewards narrow people’s focus of attention and reduce the breadth of the alternative solutions they consider (Easterbrook 1959). Such narrowing can be detrimental for tasks that require insight, creativity, or complex problem solving (Ariely et al. 2009). One salesperson stated,

“When I just sell sparkling water or a glass, then it’s not a problem. Then I can sell sparkling water in addition to the glass, then I am the salesperson. But if I then add ‘How do we have to design the glass? How do we have to design the liquid?’ Then it becomes a consulting task.... We are the contact person for the customer, we are the manager, the problem manager, and the sales manager. We are everything for the customer.” (Interview SP6)

Second, extrinsic rewards distract salespeople from the task at hand and from their inherent interest in that activity itself (Ariely et al. 2009; Deci, Koestner, and Ryan 1999; McGraw and McCullers 1979). A salesperson pointed out, “If I needed to be motivated [financially] for cross-selling, I should quit my job.... Then you’re in the wrong place. Then you haven’t understood the benefits of cross-selling” (Interview SP6).

Third, after receiving financial rewards, people shift their perception of what drives their behavior: even when their behavior was originally intrinsically motivated, they shift from thinking that they decided to do the task because of intrinsic motivation to thinking they did it for the money. Cognitive evaluation theory suggests that monetary rewards can crowd out intrinsic motivation and cause hidden costs associated with extrinsic rewards because the salesperson perceives those rewards as external controlling mechanisms (Deci, Koestner, and Ryan 1999; Frey 1993; Frey and Jegen 2001). In line with the previous reasoning, we expect monetary compensation as an extrinsic reward to reduce the positive moderating effect of intrinsic motivation stemming from transformational leadership behavior.

**H4a**: The negative moderating effect of transactional leadership on the individual adoption–performance relationship is stronger when salespeople receive monetary incentives for cross-selling than when they do not.

### Methodology

#### Data Collection and Sample Structure

To minimize same-source bias, we collected data from three sources: (1) salesperson surveys, (2) sales manager surveys, and (3) archival data from company records. We received support from a biotech company that produces and sells products and services to the biopharmaceutical industry. The company employs more than 4,500 people and sells products from 15 product divisions, organized according to technology or product groups. Each division offers machinery, devices, services, and consumables that address various areas of customers’ production processes. Salespeople are responsible for selling from all product divisions to their accounts, and they retain account responsibility even when supported by specialists.

The company’s customers’ buying processes are long-term (e.g., up to two years for standard articles and multiple years for customized solutions), requirements are heterogeneous because the production processes of medication and biopharmaceutical products differ considerably, and customers all have strong technological skills and knowledge. Long-term personal relationships with customers and high expectations for salespeople’s specific customer knowledge are typical in this industry.

We distributed the survey questionnaire to 369 salespeople and, because of strong support from company management, received 285 responses, for a 77% response rate. After discarding 14 incomplete surveys, we retained 271 for the study. Salespeople provided information about their cross-selling motivation, cross-selling ability, and cross-selling performance. We received archival data about salespeople’s compensation and sales structure from the company’s human resource department.

To glean information about leadership behavior, we administered a second survey to 61 sales managers, the direct supervisors of the salespeople surveyed. Of these, 57 sales managers responded, for a response rate of 93%. We matched the responses of salespeople (Level 1) and sales managers (Level 2) to create a two-level data set. The final data set contained 259 usable Level 1 data records and 55 usable Level 2 records, for an effective response rate of 70%. The sample also is sufficient for multilevel hierarchical linear modeling, which requires a macro-level sample size of 50 or more (Wieske, Homburg, and Lee 2008).

#### Predictors at the Salesperson Level

We used well-established scales and adapted them as necessary. To measure the degree of a salesperson’s product portfolio adoption, we used objective data from company records. Following Schmitz (2013), we constructed a Herfindahl–Hirschman index of the concentration of sales across 15 product divisions:

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where $s_{ij}$ is the annual sales volume of salesperson $j$ with products of division $i$, and $S_j$ is the annual sales volume of salesperson $j$. If a salesperson achieves all annual sales with products from a single product division ($=100\%$), the index indicates the maximum concentration of 10,000. More equitable distributions of sales across different product divisions lead to lower Herfindahl index values (minimum for 15 product divisions = 666.7). For this study, we recoded $PPA_{\text{new}} = -1 \times (PPA_{\text{orig}} - 10,000)$, so a lower $PPA$ value indicates less sales dispersion (higher concentration), and a higher $PPA$ value indicates more sales dispersion. Thus, high values of $PPA_{\text{new}}$ indicate greater product portfolio adoption.

The cross-selling compensation measure came from the firm’s human resources department and indicates whether a salesperson receives a monetary incentive for cross-selling: for each salesperson, the measure takes on a value of 1 if the salesperson’s compensation scheme included a product-mix incentive (35% of the salespeople) or a value of 0 if he or she did not have such an incentive (65% of the salespeople). Furthermore, as prior research has recommended, four Level 1 covariates—salespeople’s cross-selling ability, cross-selling incentive expectancy, sales team performance, and intraorganizational support—have been included as potential predictors of individual performance in the sales and cross-selling context (see Lambe, Webb, and Ishida 2009, Malms and Schmitz 2011; Oliver 1974; Schmitz 2013).

### Measures of the Dependent Variable at the Salesperson Level

Cross-selling performance refers to the proportion of a salesperson’s customers’ cross-buying potential that has been tapped. The firm did not collect data for that construct and recommended that we base the analysis on perceptual performance measures, using salespeople and sales managers as informants. To obtain salesperson self-measurements, we used a four-item, seven-point rating scale developed by Schaefer (2002). Using the reflective four-item scale, we created a composite scale by weighting the items equally. Prior research has recommended using an importance-weighted measure, in which the importance of each item is reflected by its individual predictive efficiency with a key variable of interest (Rozeboom 1979). Following this recommendation, we calculated the correlations between the four items and the corresponding variable—adoption behavior, in our case. We then weighted each of the four items as $w_i = \text{corr}_i / \text{Sum}_i - m_{i\beta}$ (corr) and calculated the importance-weighted sum of the items as an alternative self-reported measure of salesperson cross-selling performance.

In absence of a theoretical basis to choose between measures, we chose the one that most closely corresponds with the measure we obtained from the sales managers. We asked sales managers to evaluate each of their salespeople ("What is your assessment of the extent that each of the salespeople below realized the economic cross-buying potential of their customers?") on a seven-point rating scale ($1 = "0\% [not at all]," 2 = "1\%–20\%," 3 = "21\%–40\%," 4 = "41\%–60\%," 5 = "61\%–80\%," 6 = "81\%–99\%," and 7 = "100\% [full]"). We were able to collect such a measure for only 168 of the 259 salespeople of the original sample. To avoid losing a substantial number of observations, we chose not to use this measure as the dependent variable for the main analysis but rather as a selection criterion among alternative self-rated performance measures and to test for convergent validity with salesperson ratings as a robustness check.

### Measures at the Sales Manager Level

We measured transformational and transactional leadership behaviors using established scales that capture the multidimensional nature of these constructs. For transformational leadership behavior, we used 12 items from the Transformational Leader Inventory (MacKenzie, Podsakoff, and Rich 2001; Podsakoff et al. 1990) that reflect four dimensions: core transformational leadership, high performance expectations, supportive leadership behavior, and intellectual stimulation. We used homogeneous item parceling as recommended for multidimensional constructs (Coffman and MacCallum 2005) to model transformational leadership behavior as a single-factor construct with four indicators (one parcel per dimension). To create each item parcel, we averaged all items used to measure that subdimension. To assess transactional leadership behavior, we used six items from MacKenzie, Podsakoff, and Rich (2001) that capture two dimensions: contingent reward behavior and contingent punishment behavior. In line with existing research, both dimensions capture a leader’s feedback contingent on subordinates’ outcome and behavioral performance (see MacKenzie, Podsakoff, and Rich 2001; Podsakoff et al. 1984). Again, we applied homogeneous item parceling and model transactional leadership behavior as a single-factor construct with two indicators (one per dimension). Appendix B provides the complete list of measurement items.

### Measure Assessment

All scales indicated strong psychometric properties, demonstrating the reliability and validity of the measurements. A confirmatory factor analysis showed that all multi-item

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4The inclusion of product-mix incentives had been decided and planned for all company sales teams but had only been partially implemented at the time of data collection. In addition, the incentive was not applicable for some salespeople because of legal restrictions.

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3Supervisors’ self-perceptions can suffer from low self-awareness and inability to access, and they might lack the ability to assess their own leader behavior appropriately; for these reasons, perhaps we should instead rely on measures from subordinates. However, measuring supervisory behaviors from a subordinate perspective raises other concerns: in particular, subordinates’ perceptions are biased by causal attributions (Meindl and Ehrlich 1987), social desirability bias (Lievens, Van Geit, and Coetsier 1997; Meindl and Ehrlich 1987), leniency bias (Podsakoff et al. 2003), and halo effects (Lievens, Van Geit, and Coetsier 1997). Therefore, we rely on self-reports of supervisory behavior, which is consistent with contemporary research (e.g., Homburg, Wieseke, and Kuehnl 2010; Panagopoulos and Avlonitis 2010; Wieseke et al. 2009).
scales achieved composite reliabilities above .60, and average variance extracted (AVE) was greater than .50 (see Table 2). We assessed discriminant validity using Fornell and Larcker’s (1981) criterion, which suggests support for discriminant validity if the AVE exceeds the squared correlations between all pairs of constructs; all constructs for which an AVE was available fulfilled that requirement. Thus, the results supported discriminant validity.

The confirmatory factor analysis of the measurement model, conducted using MPlus 6.0 and a maximum likelihood estimation procedure, also indicated a good fit of the model with the data ($\chi^2 = 138.8$, d.f. = 74, $p = .00$; root mean square error of approximation = .06; comparative fit index = .95; standardized root mean residual = .05), and each indicator loaded significantly ($p < .01$) on the appropriate factor. These results support the posited relationships among constructs and indicators and confirm convergent validity.

To identify possible multicollinearity among the five predictor variables, we calculated the variance inflation factors for Level 1 and disaggregated Level 2 predictors. The variance inflation factor values ranged from 1.07 (product portfolio adoption) to 1.37 (cross-selling motivation) and indicated no problems of multicollinearity (Kleinbaum et al. 1998). Table 2 contains the descriptive statistics and intercorrelations of all the variables.

**Selection of Dependent Measure**

In line with the previous discussion, we used a correlation analysis between the self- and supervisory-rated measures of performance to select the dependent measure: those correlations were .70 ($p < .01$) for the equally weighted and .73 ($p < .01$) for the importance-weighted measure of cross-selling performance. Based on these results, we selected the importance-weighted measure for our main analysis. Our robustness tests show that our results are consistent with either of the two measures.

**Results**

We applied hierarchical linear modeling procedures to analyze the proposed cross-level interaction effects. For the multilevel modeling, we used HLM 7.01 and applied the full maximum likelihood estimation (see Raudenbush and Bryk 2002). Consistent with Aiken and West (1991), all predictor variables on Levels 1 and 2 were grand mean-centered on their respective level to create the interaction terms. Table 3 and Appendix C provide the details of the analytical procedures.

In line with H1, the main effects–only model (Model 1) supported the proposed positive effect of product portfolio adoption behavior on a salesperson’s cross-selling performance ($\beta = .18$, $p < .01$). We added the direct effects of the Level 1 and Level 2 moderator variables in Model 2, which represents the hypothesized model without interactions. In that model, the Level 1 intercept is a function of transformational and transactional leadership behavior. We added the two-way interactions proposed by H2 and H3 in Model 3, resulting in improved model fit ($-2 \times$ difference in log-likelihood $\sim \chi^2$, d.f. = number of freed paths; $\Delta \chi^2 = 7.59$, $\Delta$ d.f. = 2; $p < .05$). We added all the other two-way interactions in Model 4. In Model 5, our complete, hypothesized model, the log-likelihood difference test confirmed that including the three-way interactions provided the strongest fit with the data ($\Delta \chi^2 = 9.58$, $\Delta$ d.f. = 2; $p < .01$) compared with the nested models. The estimation results with their standard errors of all five hierarchical models also appear in Table 3.

**TABLE 2**

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*p < .05 (two-tailed).

**TABLE 3**

Means, Standard Deviations, and Intercorrelation Matrix

Notes: TFLS = transformational leadership behavior, TALS = transactional leadership behavior, CSP = cross-selling performance, PPA = product portfolio adoption, CSI = cross-selling incentive (dummy-coded: “yes” = 1, “no” = 0), ABIL = cross-selling ability, EXP = cross-selling incentive expectancy, SUPP = intraorganizational support, TPER = sales team performance.
Cross-Level Interactions

We posited that strong transformational leadership would exert a positive moderating effect on the relationship between individual product portfolio adoption and cross-selling performance. We found a significant, positive cross-level interaction effect ($\gamma = .32$, $p < .01$; Model 3), in support of H2. Also in line with H1, we found a negative moderating effect ($\gamma = -.20$, $p < .01$) of transactional leadership and product portfolio adoption on the salesperson’s cross-selling performance. Thus, sales managers’ transactional leadership negatively affected the positive salesperson adoption–performance relationship from H1. We detail these two-way interactions in Figure 2.

Figure 2, Panel A, shows the positive interaction between product portfolio adoption and transformational leadership: when sales managers’ transformational leadership behavior becomes stronger, it amplifies the effect of a salesperson’s portfolio adoption on cross-selling performance. Figure 2, Panel B, illustrates that product portfolio adoption has a strong positive effect on cross-selling performance when transactional leadership behavior gets weaker, whereas stronger transactional leadership behavior diminishes this positive adoption–performance relationship and harms cross-selling performance. Together, these results support our hypotheses that transformational and transactional leadership can enhance or impede the effect of a salesperson’s product portfolio adoption on his or her cross-selling performance.

### Interaction Effect of Cross-Selling Compensation

We predicted that monetary cross-selling incentives represent important boundary conditions that influence the two-way interactions between leadership behavior and salesperson’s adoption behavior and their effect on cross-selling performance. We introduced a dummy variable in which membership in the “no incentive” group was coded as 0 and membership in the “incentive” group was coded as 1. Consistent with H4a, we found a negative significant interaction of salespeople’s product portfolio adoption, transformational leadership, and monetary incentives ($\gamma = -.31$, $p < .10$; Model 5). This finding supports our hypothesis that the positive moderating effect of transformational leadership behavior is stronger when salespeople do not receive monetary cross-selling incentives.

### TABLE 3

Results of the Hierarchical Linear Model

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<td>PPA $\times$ TALS $\times$ CSI</td>
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<td>668.80 (13)</td>
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<td>Change in fit index</td>
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<td>7.59 (d.f. = 2)**</td>
<td>.73 (d.f. = 3)$^{n.s.}$</td>
<td>9.58 (d.f. = 2)**</td>
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*p < .10.

**p < .05.

***p < .01.

$n.s.$ Not significant.

Notes: All $p$-values are based on one-tailed tests. PPA = product portfolio adoption, CSI = cross-selling incentive (dummy-coded: “yes” = 1, “no” = 0), TFLS = transformational leadership behavior, TALS = transactional leadership behavior, ABIL = cross-selling ability, EXP = cross-selling incentive expectancy, SUPP = intraorganizational support, TPER = sales team performance.
We depict this three-way interaction graphically in Figures 3 and 4, using the slope of a salesperson’s product portfolio adoption at ±1 standard deviation from the means of transformational and transactional leadership. When a salesperson’s compensation does not include monetary incentives, we found a positive interaction between transformational leadership and the salesperson’s product portfolio adoption (Figure 3, Panel A; see also Model 5). This interaction is shown in Figure 3, Panel A, where the simple slope of product portfolio adoption increases with higher transformational leadership when cross-selling compensation is not included. The figure illustrates how the relationship between transformational leadership and product portfolio adoption is stronger at higher levels of transformational leadership compared to lower levels. The same pattern is observed for transactional leadership, as shown in Figure 3, Panel B, where the simple slope of product portfolio adoption increases with higher transactional leadership when cross-selling compensation is not included.
positive interaction disappears when salespeople are provided with monetary incentives (Model 5). A simple slope test supports this finding, revealing significant differences in the slopes of strong and weak transformational leadership behavior in the nonincentive condition (t = 2.845, p < .01; see Figure 3, Panel A), but not in the incentive condition (t = 1.337, p > .10; see Figure 3, Panel B). A comparison of both incentive and no-incentive conditions shows that product portfolio adoption has the most positive impact on cross-selling performance when no monetary incentive is given and transformational leadership behavior is high (Figure 3, Panel A).

In line with H4b, the three-way product portfolio adoption × transactional leadership × monetary incentive interaction was significant and negative (γ = –.56, p < .01; Model 5). This result supports our hypothesis that the (negative) product portfolio adoption × transactional leadership interaction is stronger when salespeople receive monetary cross-selling incentives, whereas the interaction is weaker in the absence of such incentives. In Figure 4, we present the results of this three-way interaction, using the simple slope of salespeople’s product portfolio adoption at ±1 standard deviation from the means of sales managers’ transactional leadership behavior for both incentive conditions. A simple slope test reveals that slopes of strong and weak transactional leadership behavior are not significantly different when monetary incentives are not provided (t = .603, p > .10; see Figure 4, Panel A) but are significantly different when monetary incentives are provided (t = 4.477, p < .01; see Figure 4, Panel B). Thus, our analysis supports the three-way interactions we hypothesized.6

Robustness Tests

Common method bias. To overcome the potential for common method bias ex ante and to assess its impact ex post, we followed the approach Podsakoff et al. (2003) suggest. First, we collected the predictor and criterion variables from three sources (salespeople, sales managers, and company records). Second, we formulated the items and overall questionnaire as concisely as possible. Third, we separated the measures of predictor and perceptual criterion variables in the questionnaire. Fourth, we ensured that respondents’ answers were anonymous. Fifth, we conducted a pretest to reduce comprehension problems before the survey. Sixth, the ex post statistical analyses of relationships included moderating effects, which increased the complexity and diminished the potential bias of respondents’ implicit theories (Podsakoff et al. 2003). In addition, we used Harman’s single-factor test to control for common method variance in a Level 1 structural equation modeling model.

In addition, we compared two separate HLM models, one calculated for salespeople who are provided with monetary cross-selling incentives (Group 1) and the other model for those who received no such incentives (Group 2). Consistent with the results, when an incentive was provided, we found a significant two-way interaction for transactional leadership behavior and none for transformational leadership, whereas only the transformational leadership × adoption interaction was significant in the nonincentive group.

Notes: TALS = transactional leadership behavior. These figures show the simple slope of a salesperson’s product portfolio adoption at ±1 standard deviation from the means of transactional leadership behavior.
including Level 1 covariates. No single factor emerged, nor did one general factor account for the majority of the variance. Seventh, we included a latent method factor in the model, with paths leading to each of the indicator variables, and the paths to the indicator variables from their respective latent constructs continued to be significant. The relationships between the latent factors were altered slightly but not substantively, and they remained statistically significant. Because the addition of the latent method factor did not lead to any major changes in the fit of the model, we considered the influence of common method bias negligible.

**Social desirability bias.** To determine whether the perceptual criterion variable was affected by social desirability bias, we followed the procedure Steenkamp, De Jong, and Baumgartner (2010) propose and included the Balanced Inventory of Desirable Responding, which captured two components: egoistic response tendencies (ERT) and moralistic response tendencies (MRT). We checked for significant correlations between the marketing construct and the two components and found none for MRT, though small positive correlations emerged for ERT with cross-selling performance (correlation = .15, p < .01). To determine the extent of shared variance between the ERT scale and the performance construct, we calculated the standardized regression coefficient, which revealed values for ERT below the .20 threshold (r_{per} = .14, p < .05), indicating a negligible relationship for ERT (Steenkamp, De Jong, and Baumgartner 2010). Thus, the effect of social desirability bias was negligible, which again supports the validity of the perceptual cross-selling performance measure in use.

**Consistency of importance-weighted and equally weighted measures.** Following prior research, we predicted that a salesperson’s adoption behavior would relate positively to his or her cross-selling performance. As we demonstrated previously, we find support for this hypothesis, with an importance-weighted measure of self-rated cross-selling performance as the dependent variable. We reestimated Models 1-5 (see Table 3) with the equally weighted performance measure as the dependent variable following the same model specifications displayed in Appendix C. These findings are nearly identical to those of the importance weighted measures, demonstrating the robustness of the results to the specification of the dependent variable.

**Consistency of self- and supervisory-rated measures.** Both self- and supervisory-rated measures are subjective approximations of the salesperson’s true performance and thus may be biased. An ordinary least squares regression of salesperson’s product portfolio adoption on supervisory-rated cross-selling performance (H_1: \( \beta = .16, p < .01 \)) supports our prior results from the self-rated measure. The consistency of self- and supervisory-rated measures implies high validity and reliability of our self-rated performance evaluations.

**Post hoc analysis of antecedents to adoption.** Prior research has examined the antecedents of salespeople’s product adoption behavior (e.g., Atuahene-Gima 1997). Because our study primarily focuses on the boundary conditions to the adoption–performance relationship, the inclusion and analysis of antecedents of the adoption behavior is beyond the scope of our research. However, it is possible that some of the variables included in our model affect salespeople’s product portfolio adoption, the main predictor in our study. To assess such potential relationships, we conducted a post hoc analysis and tested for the direct effects of cross-selling motivation, cross-selling monetary incentives, and transformational and transactional leadership behaviors as predictors of a salesperson’s adoption behavior. We used a dummy-variable coding for the inclusion of the cross-selling monetary incentive variable. Our analysis reveals a positive significant effect of cross-selling motivation (\( \beta = .13, p < .05 \)). Also in line with our expectations, the post hoc analysis revealed a positive significant effect of monetary cross-selling compensation (\( \beta = .12, p < .05 \)). We found no significant effects of transformational leadership behavior (\( \beta = –.11, p > .10 \)) or of transactional leadership behavior (\( \beta = .09, p > .10 \)) on a salesperson’s product portfolio adoption behavior. These results are in line with prior empirical findings: Hultink and Atuahene-Gima (2000) reported nonsignificance of correlations between various sales force control types and salespeople’s adoption behavior, and Anderson and Robertson (1995) proposed but could not support a direct effect of supervisory attention on salespeople’s adoption behavior.

**Covariates.** We introduced four Level 1 covariates as further potential predictors of a salesperson’s cross-selling performance. We found significant positive effects of cross-selling ability (\( \beta = .18, p < .01 \)) and intraorganizational support (\( \beta = .25, p < .01 \)) on salespeople’s cross-selling performance, consistent with prior research. We controlled for and found a positive significant effect of sales team performance on a salesperson’s individual cross-selling performance (\( \beta = .26, p < .01 \)). Finally, the results reveal a positive but nonsignificant effect of a salesperson’s cross-selling incentive expectancy (\( \beta = .04, p > .10 \)). The inclusion of the four covariates did not lead to major changes in the significance or the strength of the effects in our model.

**General Discussion**

We have studied the effect of supervisory and compensation-based control on cross-selling performance in a complex selling context. We argue that the characteristics of that context lead to different results from those found and reported in simple sales contexts such as retailing, banking, and insurance. We anchor our work on personal identification and cognitive evaluation theories and reveal that in a complex context, transformational leadership behavior enhances the effect of salespeople’s product portfolio adoption on cross-selling performance, whereas transactional leadership behavior impedes the effect. We also show that the effect of leadership behaviors depends on whether cross-selling incentives are provided: the positive performance effect of transformational leadership is crowded out by monetary incentives, whereas the negative effect of transactional leadership becomes even worse.

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Theoretical Contributions

This article contributes to existing research in several ways. First, despite much work and interest in sales leadership, research thus far has neglected to explain how sales managers’ leadership behaviors affect individual salespeople’s cross-selling behaviors and performance. We provide theoretical explanations and empirical support for the enhancing and impeding effects of transformational and transactional leadership as boundary conditions. Second, we extend research on cross-selling beyond the insurance, banking, and consumer goods industries—the simple sales contexts that have had the bulk of research to date—to the important context of complex offerings in the B2B domain, a common and pervasive context in the B2B marketplace (see Grewal and Lilien 2012).

Third, prior research has largely ignored the interaction of supervisory- and compensation-based controls in cross-selling. Variable compensation is common in business practice, and a broad body of research has examined its application in sales contexts (e.g., Coughlan and Sen 1989; Farley 1964; Lal and Srinivasan 1993). Yet no empirical evidence has shown the impact of monetary rewards on the effectiveness of leadership behaviors. We help explain the interaction between supervisory- and compensation-based controls in cross-selling: our hypotheses and results based on motivation-crowding and cognitive-evaluation theories show that the value provided by leadership behavior in a complex context is contingent on the compensation structure. Fourth, unlike extant research that focuses on identifying and evaluating cross-selling opportunities with existing customers and prospects (e.g., Kamakura, Ramaswami, and Srivastava 1991; Kamakura et al. 2003; Li, Sun, and Wilcox 2005; Netessine, Savin, and Xiao 2006), we address cross-selling from a process perspective and consider the boundary-spanning role of the salesperson as a key actor in the cross-selling process.

Managerial Contributions

Our theoretical framework and empirical results suggest that a basic prerequisite for enhanced cross-selling performance is salesperson adoption of the company's product portfolio. Therefore, management must find ways to encourage salespeople’s product portfolio adoption behavior. Company managers must encourage sales managers to engage in transformational leadership behavior and avoid transactional leadership behavior when facing complex selling situations. These findings support Adamson, Dixon, and Toman (2013, p. 105), who observe that "reps are most likely to succeed in their interactions with empowered customers when they feel supported rather than directed." These results also have implications for staffing; the firm should hire sales managers with strong transformational leadership skills to guide sales teams engaged in complex cross-selling situations.

Our study offers managerial implications concerning compensation-based controls, implemented here as specific product-mix incentives. Although such compensation-based controls can incentivize salespeople to sell a broader scope of a company’s products, the resulting sales growth may not be specifically linked to cross-selling. Because compensation-based controls diminish the positive boundary effect of transformational leadership and increase the negative influence of transactional leadership, product-mix incentives do not seem appropriate to enhance cross-selling performance. A salesperson stated, “When I realize that I [won’t] achieve the product-mix objectives by the end of the year, I start selling products of the areas missing in my portfolio to anyone who could need it.”

These findings should be viewed cautiously because they may be market and context specific and may run counter to practice in many markets. For example, in a study of managed care sales representatives, ZS Associates (2011) reported that 35% of the participants’ compensation plans were based on portfolio payouts, and none of the companies used any different forms of monetary compensation to foster cross-selling. As our study’s findings suggest, the use of such product-mix incentives may be problematic. However, if the use of monetary compensation for cross-selling seems warranted, sales managers should consider deploying forms other than product-mix incentives such as share of wallet, number of product categories per customer, or share of relevant installed base (see, e.g., Malm 2012).

Limitations and Further Research

Although this study breaks new ground, it has limitations. First, working closely with a single industrial organization enhanced our ability to collect rich data across salesperson and sales manager levels but also created a potential limitation of the generalizability of the results. Our findings might be limited to settings similar to those found in the organization we examined—namely, firms that sell a broad portfolio of technical products to customers with a potential for cross-buying additional products, using a direct sales force whose compensation includes monetary product-mix incentives. Further research might assess the proposed model and its relationships in other company settings and industries.

Second, for the purpose of this research, we have selected a complex selling context. Although we argue that our findings are specific to such a context, we do not know how generalizable the results are to other contexts. Thus, further research could investigate how complex a selling situation must be to result in effects similar to ours.

Third, no objective measure of cross-selling performance was available from the company under investigation, which is why we had to rely on alternative perceptual performance ratings. Because there is no theoretical way to choose the best measure of performance, we examined the correspondence between self- and supervisory-rated measures. Although we tested our analysis for three alternative measures and found consistency of results, future studies should seek more objective measures of performance.

Fourth, a key assumption of our study was that better cross-selling performance is beneficial to a firm’s performance. Research has suggested that this assumption might be true in general (Kamakura 2008; Kamakura et al. 2003; Shah et al. 2012); however, there might be situations in which cross-selling can have detrimental effects for customers, salespeople, and the firm. Failed cross-selling attempts can backfire because they might irritate or annoy the customers and cause switching (Günes et al. 2010; Kamakura et al. 2003). Even when salespeople reach short-term sales penetration targets, that success can lead to harm in the long run if, for example, products cross-sold do not...
closely fit customers’ needs (Hunter and Perreault 2007). Furthermore, shifting customer responsibility to a single account manager who cross-sells products from different divisions might undermine existing customer–selling firm relationships (Bendapudi and Leone 2002). Moreover, research has shown that salespeople selling for multiple divisions are prone to experience high levels of role conflict, high role ambiguity, and low job satisfaction (Sohi, Smith, and Ford 1996)—all key to salespeople’s job motivation, commitment, burnout, and turnover tendencies (see Brown and Peterson 1994)—which in turn might harm a firm’s performance in the long run.

Fifth, cross-selling itself might not be beneficial to all firms. Cross-selling requires that customers have cross-buying needs that the firm’s products and services could potentially cover. Especially when customers do not want to cross-buy (e.g., multiple-supplier strategy) or do not even have a need for products other than those bought already, a specialized sales force could be much more effective (Sohi, Smith, and Ford 1996). In addition, a company that is well known for its technical specialization in a certain domain could dilute its high reputation by broadening its offerings, whereas broader offerings would lead to major benefits for companies positioned as solution providers. Shah et al. (2012) also reveal that cross-selling to all customers of a firm is not necessarily profitable and can adversely affect a firm’s bottom line when some customer segments have negative profitability. Further research on when and how cross-selling should be deployed as well as which contingencies lead to success would be worthwhile.

Despite these limitations, our framework and findings should prove useful for general managers and sales managers. We hope that our modest steps to address the role of the salesperson, the sales manager, and the compensation structure in achieving cross-selling performance prove provocative and generate additional research in this important area.

### APPENDIX A

**Description of Qualitative Interviews**

<table>
<thead>
<tr>
<th>Position</th>
<th>Gender</th>
<th>Length of Interview (Minutes)</th>
<th>Type of Interview</th>
<th>Years of Selling Experience at Biotech Company (Overall)</th>
<th>Frequency of Contact with Supervisor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salesperson (SP1)</td>
<td>Female</td>
<td>22</td>
<td>Telephone</td>
<td>21 (21)</td>
<td>Every ten days</td>
</tr>
<tr>
<td>Salesperson (SP2)</td>
<td>Female</td>
<td>20</td>
<td>Telephone</td>
<td>4.5 (4.5)</td>
<td>Daily</td>
</tr>
<tr>
<td>Salesperson (SP3)</td>
<td>Female</td>
<td>20</td>
<td>Telephone</td>
<td>4 (4)</td>
<td>Two to three times per month</td>
</tr>
<tr>
<td>Salesperson (SP4)</td>
<td>Female</td>
<td>20</td>
<td>Telephone</td>
<td>3.5 (3.5)</td>
<td>Every two weeks</td>
</tr>
<tr>
<td>Salesperson (SP5)</td>
<td>Male</td>
<td>20</td>
<td>Telephone</td>
<td>21 (21)</td>
<td>Weekly</td>
</tr>
<tr>
<td>Salesperson (SP6)</td>
<td>Male</td>
<td>45</td>
<td>Telephone</td>
<td>11.5 (25)</td>
<td>Dependent on demand</td>
</tr>
<tr>
<td>Salesperson (SP7)</td>
<td>Male</td>
<td>25</td>
<td>Telephone</td>
<td>2 (9)</td>
<td>Two to three times per week</td>
</tr>
<tr>
<td>Sales director (SD)</td>
<td>Female</td>
<td>75</td>
<td>In person</td>
<td>24 (24)</td>
<td>—</td>
</tr>
<tr>
<td>Vice president of sales (VP)</td>
<td>Male</td>
<td>55</td>
<td>In person</td>
<td>23 (32)</td>
<td>—</td>
</tr>
</tbody>
</table>

### Appendix B: Measurement Scales

Measures are rated on seven-point Likert scales (1 = “strongly disagree,” and 7 = “strongly agree”) unless otherwise noted. (R) denotes a reverse-coded item.

#### Cross-Selling Performance

(Schaefer 2002; Schmitz 2013)

You are a salesperson for a certain number of assigned customers, for which you are responsible in all selling and cross-selling activities (including those by teams or specialized colleagues). Please indicate to which extent you have actually realized the economic cross-buying potential of your customers.

- We cover our customers’ needs for additional products already on a broad basis.
- Our customers obtain additional products they require in most cases from us.
- Most additional products we offer, our customers purchase from us.
- We exploit the customers’ potential with regard to additional products extensively.

#### Transformational Leadership Behavior

(MacKenzie, Podsakoff, and Rich 2001; 1 = “very false,” and 7 = “very true”)

**Core Transformational Leadership**

- I articulate our company’s vision clearly to salespeople.
- I am an ideal role model for the salespeople in our firm.
- I facilitate the acceptance of group goals (that go beyond individual ones).

**High Performance Expectations**

- I make it clear that I expect to give 110% all the time.
- I insist on only the best performance.
- I will not settle for second best.

**Supportive Leader Behavior**

- I always consider salespeople’s personal feelings before acting.
- I show respect for my salespeople’s personal feelings.

**Intellectual Stimulation**

- I challenge salespeople to think about old problems in new ways.
- I ask questions that prompt my salespeople to think about the way they do things.
- I have stimulated my salespeople to rethink the way they do business.
- I have ideas that have challenged my salespeople to reexamine some of their basic assumptions about work.
**Transactional Leadership Behavior**
(MacKenzie, Podsakoff, and Rich 2001; 1 = “very false,” and 7 = “very true”)

*Contingent Reward Behavior*
- I always give positive feedback when my salespeople perform well.
- I give special recognition when my salespeople produce at a high level.
- I commend my salespeople when they exceed their quotas and goals.

*Contingent Punishment Behavior*
- I would indicate my disapproval if salespeople performed at a low level.
- I let my salespeople know about it when they perform poorly.
- I point it out to my salespeople when their productivity is not up to par.

**Cross-Selling Ability**
(based on Malms and Schmitz 2011; Schmitz 2013)
- I can easily modify my sales presentation if customers ask for additional products.
- I am very flexible in offering a wide range of different products and services depending on my customer’s needs.
- I feel very insecure in offering a wide range of different products and services. (R)

**Cross-Selling Incentive Expectancy**
- I am compensated well for selling additional products.
- Through the selling of additional products I would receive a personal benefit.

**Sales Team Performance**
(adapted from Lambe, Webb, and Ishida 2009)
- The sales from my team is higher than that of other sales teams.
- The profitability level of my sales team is higher than that of other sales teams.
- Top management’s satisfaction with my sales team is higher than that of other sales teams.

**Intraorganizational Support**
(based on Malms and Schmitz 2011)
- The degree of integration between the divisions’ technical support and sales is very good.
- The support in daily order fulfillment process (logistics, complaints,...) is very good.
- Our company is very keen in supporting a team-selling culture.
- The product divisions in our organization enable easy cross-selling processes.

**Cross-Selling Motivation**
(based on Schmitz 2013)
- Offering customers additional products can be important.
- Salespersons should take responsibility for optimal solutions for their customers.
- I feel good about providing customers additional products.
- Offering customers additional products fascinates me.

**Cross-Selling Performance**
(supervisor-rated)
Please estimate the extent, to which each of the salespeople below realized the economic cross-buying potential of their customers:
- “0% (not at all)” (1)
- “1–20%” (2)
- “21–40%” (3)
- “41–60%” (4)
- “61–80%” (5)
- “81–99%” (6)
- “100% (full)” (7)

**Appendix C: Hierarchical Model**
We specified a hierarchical model based on the conceptual framework as depicted in Figure 1. The model incorporates all parameter specifications on the individual level of the salesperson (L1 = Level 1) and at the sales manager level (L2 = Level 2). Table 3 presents the estimation results (see Model 5).

L1: \[ \text{PER}_{ij} = \beta_{0j} + \beta_{1j}(\text{PPA}_{ij}) + \beta_{2j}(\text{CSI}_{ij}) + \beta_{3j}(\text{PPA}_{ij} \times \text{CSI}_{ij}) + \beta_{4j}(\text{ABIL}_{ij}) + \beta_{5j}(\text{EXP}_{ij}) + \beta_{6j}(\text{TPER}_{ij}) + \beta_{7j}(\text{SUPP}_{ij}) + r_{ij}, \]

L2: \[ \beta_{0j} = \gamma_{00} + \gamma_{01}(\text{TFLS}_{j}) + \gamma_{02}(\text{TALS}_{j}) + u_{0j}, \]

L2: \[ \beta_{1j} = \gamma_{10} + \gamma_{11}(\text{TFLS}_{j}) + \gamma_{12}(\text{TALS}_{j}), \]

L2: \[ \beta_{2j} = \gamma_{20} + \gamma_{21}(\text{TFLS}_{j}) + \gamma_{22}(\text{TALS}_{j}), \]

L2: \[ \beta_{3j} = \gamma_{30} + \gamma_{31}(\text{TFLS}_{j}) + \gamma_{32}(\text{TALS}_{j}), \]

L2: \[ \beta_{4j} = \gamma_{40}, \]

L2: \[ \beta_{5j} = \gamma_{50}, \]

L2: \[ \beta_{6j} = \gamma_{60}, \]

L2: \[ \beta_{7j} = \gamma_{70}, \]

where

salespeople \( i = 1 - n, \)
supervised by sales managers \( j = 1 - m, \)

PER = cross-selling performance,
PPA = product portfolio adoption,
CSI = cross-selling incentive (dummy-coded: “yes” = 1, “no” = 0),
TFLS = transformational leadership behavior,
TALS = transactional leadership behavior,
ABIL = cross-selling ability,
EXP = cross-selling incentive expectancy,
TPER = sales team performance, and
SUPP = intraorganizational support.
REFERENCES


