Walking a tightrope: the joint impact of customer and within-firm boundary spanning activities on perceived customer satsfaction and team performance

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ORIGINAL EMPIRICAL RESEARCH

Walking a tightrope: the joint impact of customer and within-firm boundary spanning activities on perceived customer satisfaction and team performance

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Abstract To successfully satisfy large customers and meet financial objectives, dedicated sales teams need to manage two boundaries: a boundary within the selling firm and one with the customer organization. However, little is known about the process of managing these multiple boundaries. This study integrates job demands-resource theory with research on key account management and sales teams to examine (1) the main effect of customer boundary spanning on perceived customer satisfaction and team performance and (2) the moderating role of within-firm coordination activities at three levels: top management, cross-functional, and within-team. An empirical test of the model with data from 167 sales teams finds that the interaction between customer boundary spanning and within-firm coordination activities has opposite effects on perceived customer satisfaction and team performance outcomes. The results are robust to endogeneity and heteroskedasticity concerns.

Keywords Boundary spanning · Dedicated sales teams · Customer satisfaction · Team performance

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> We (the dedicated sales team) are riding a bicycle between two galloping elephants, [the large customer] on one side and [our company] on the other. If one of those suckers stumbles, if one of them swerves unexpectedly, we are not going to just get squished. We are going to be peeled off the side of an elephant. (*A sales team member*)

As customers consolidate and continue to rationalize the number of vendors they use, selling organizations have had to adapt by creating new organizational forms that concentrate selling resources to fewer but more critical customers due to two key factors. First, customer consolidation has led to such customers accounting for a larger percentage of suppliers' total sales. For example, Walmart Inc. and Target account for 30 and 7 % of P&G's U.S. sales respectively (Lafley and Charan 2008), thus increasing their importance significantly. Second, such dedication of selling resources is required as selling increasingly involves a joint effort between the customer and the firm's sales team to develop collaborative solutions that enhance the profits of both firms (Day 2000; Tuli et al. 2007; Ulaga and Reinartz 2011). One approach by which sales organizations have dedicated resources to customers is the deployment of dedicated multi-functional sales teams (Alldredge et al. 1999). From sales teams that used to mirror the buying centers of customer organizations (Hutt et al. 1985; Moon and Armstrong 1994; Smith and Barclay 1990), selling teams have evolved to deliver on the seller's commitment to cooperative relationship selling by maintaining large sales teams that mirror the selling firm at the buyer's headquarters.

To achieve the cooperative relationship between buyer and seller, *boundary spanning*—behavior intended to establish relationships with and generate knowledge from external actors that can assist a team in meeting objectives —has become increasingly important (Marrone et al. 2007). Dedicated multi-

functional sales teams are unique in that they must interact with two organizations simultaneously: externally with the customer (customer boundary spanning), and internally within the firm (Bradford et al. 2010). When managing these dual relationships, sales teams may encounter demands of value creation (e.g., customer satisfaction) and value appropriation (e.g., performance) (De Ruyter et al. 2009). Our review of prior research on sales teams and boundary spanning activities, summarized in Fig. 1, reveals the following gaps.

First, the literature has largely focused on the firm, customer, or within-team view of boundary spanning, but to this point, it has not *simultaneously* examined internal and external interactions as interdependent entities. Second, managers face potentially competing outcomes from the customer and the firm. The customer expects its needs to be quickly and correctly met; however, delivering on customer needs may run counter to the firm's financial objectives. As a result, sales managers must consider not only the customer goals but also those of the internal organization, which together place significant and at times conflicting demands on the sales team (Siders et al. 2001). However, there is little research that examines this issue. Finally, the existing literature does not distinguish among the various types of within-firm interactions. Dedicated sales teams have different relationships with top management, other functions, and internal team members that can either increase demands on the team or provide access to resources required for the desired outcome. By examining each of these interactions separately, we can determine their specific influence on the team's goals.

Against this backdrop, our study contributes to the literature by addressing the following questions: (1) How do external customer boundary spanning activities affect perceived customer satisfaction with the team and team performance? (2) How do firm coordination and within-team activities moderate these relationships? and (3) Based on the relative emphasis on internal versus external outcome (e.g., team overall performance or perceived customer satisfaction), when should specific internal or external boundary spanning activities be emphasized? Because sales teams that serve a single major client are likely to engage intensively in both within-firm and customer boundary spanning, we examine these research questions in the dedicated sales team context using team-level outcomes. Given this focus, we conceptualize boundary spanning as a team-level phenomenon in accordance with previous research applications (Joshi et al. 2009; Marrone et al. 2007).

We use data collected from 167 United States-based dedicated sales teams of a large multinational firm. Each dedicated sales team serves only a single client and is multi-functional. Our study supports the existing literature that, other things being equal, customer boundary spanning is beneficial to

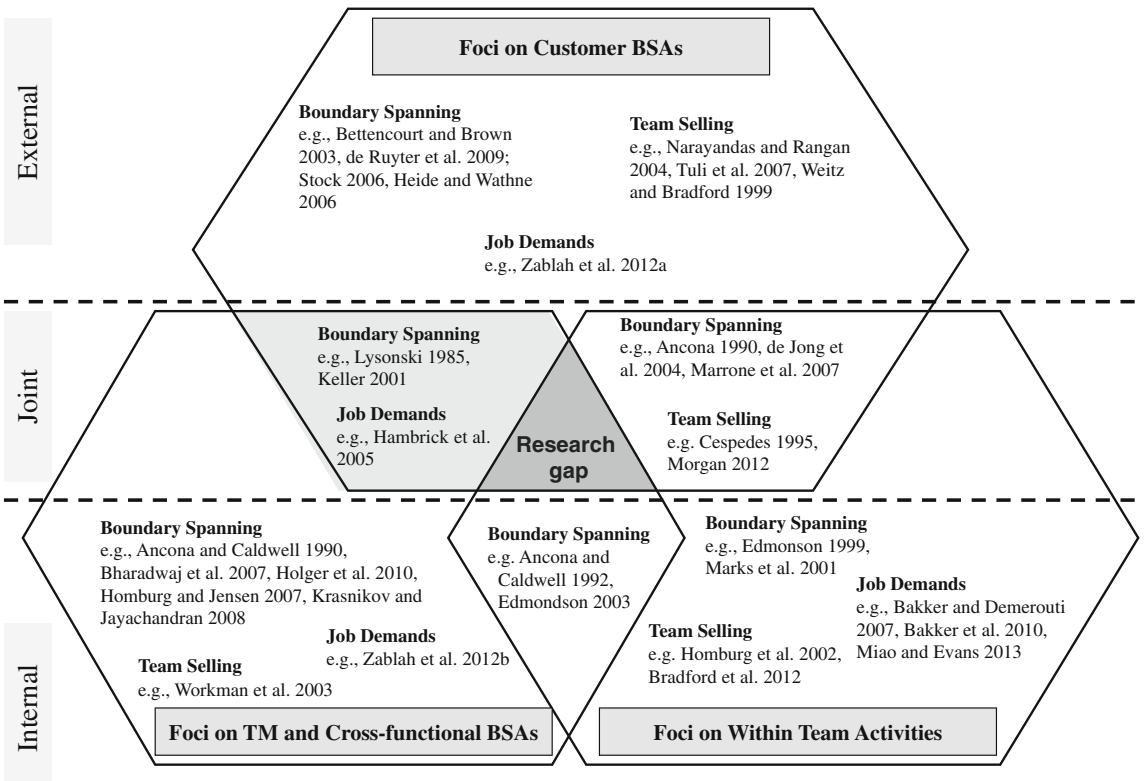

Fig. 1 Literature summary and research gaps. *BSA*, boundary spanning activity; *TM*, top management

customer satisfaction but not necessarily to team performance. More importantly, by incorporating interaction effects, we find that top management coordination weakens the relationship between customer boundary spanning and customer satisfaction but strengthens the relationship when team performance is the outcome metric. In contrast, cross-functional coordination enhances customer boundary spanning's influence when customer satisfaction is the outcome and attenuates it when team performance is the outcome. Finally, we find that within-team management has a positive effect on the relationship between customer boundary spanning and team performance and no influence on customer satisfaction. These results indicate a potential tradeoff, such that in delivering internal and external goals, the joint effect of customer boundary spanning and various within-firm coordination activities can be synergistic or antagonistic.

The findings extend the existing understanding of sales teams in several ways. First, we progress from a simple main effects based theory to a contingency based framework. By integrating the sales team, boundary spanning, and job demands-resources (JD-R) literature, we provide a more realistic and comprehensive understanding of sales team's activities and performance. Second, we capture and delineate the moderating effects of several within-firm boundary spanning activities that prior research has largely ignored. By exploring the interaction of within-firm and customer boundary spanning activities simultaneously, we demonstrate that within-firm activities, such as top management coordination, cross-functional coordination, and within-team management, are distinct and have both positive and negative interactions with customer boundary spanning. These interactions run contrary to the traditionally favorable viewpoint about boundary spanning outcomes and bring forward the dysfunctional impact as well. Finally, we pinpoint the nature of the interaction based on the focal outcome metric: perceived customer satisfaction with the team or team performance. Sales teams face the demands of not only incorporating customer and firm interactions into the decision-making process but also balancing customer satisfaction with team performance (e.g., de Ruyter et al. 2009). Our study reveals that top management coordination and cross-functional coordination can be both antagonistic and synergistic depending on the desired outcome. This reveals a tension within the sales team since the moderators have asymmetric effects on each outcome. As a result, our study provides a nuanced view and informs managers of how to determine the correct mix of internal and external activities depending on the sales team's outcome metric.

We organize this paper as follows. First, we briefly review the background literature on team selling, boundary spanning, and job demands-resources (JD-R) theory. Next, we propose hypotheses relating to the main effect of customer boundary spanning and moderating effects of within-firm coordination on customer satisfaction and team performance. We then describe the data and the analytical strategy and test the contingency model. Finally, we summarize the results and discuss the contributions to theory and managers.

Background literature

Our study draws from the team selling, boundary spanning, and JD-R literature. In this section and in Fig. 1, we briefly review each of these literature streams and provide a summary of how their integration informs our theoretical development.

Team selling

Complex business-to-business sales relationships typically require large sales teams consisting of employees from a variety of internal functions. The size of the customer and its importance can lead to sales teams that are bigger and involve more organizational units and layers of management (Moon and Armstrong 1994). These teams, referred to as dedicated sales teams, contain employees devoted to a single customer because of the importance of the customer in terms of firm revenue, percentage of sales, or customer lifetime value (Bradford et al. 2012). Such a dedicated relationship between buyer and seller is, not surprisingly, collaborative rather than competitive (Weitz and Bradford 1999).

Previous research has explored the factors that make a sales team effective (e.g., Ahearne et al. 2010; Homburg et al. 2002; Workman et al. 2003) and the key components of developing a successful buyer–seller relationship (e.g., Johnson et al. 2004; Narayandas and Rangan 2004; Weitz and Bradford 1999). In the case of dedicated accounts, effective teams have been shown to have a higher level of proactivity toward the customer, exhibit extensive information sharing, involve firm top management, and have a cooperative team environment (Workman et al. 2003). In addition, dedicated sales teams engage in boundary spanning in order to foster interactions outside the sales team. Integrating these various components of effective sales teams leads to external benefits, such as improved market performance and profitability, or internal benefits, such as improved coordination, enhanced rate of learning, and improved implementation (Bradford et al. 2012; Johnson 1999; Workman et al. 2003). Importantly, as summarized in Fig. 1, the extant research has focused on interactions with a single boundary (either the customer or within the firm) while ignoring the simultaneous interaction with both boundaries that a dedicated sales team typically encounters.

Boundary spanning

The constituency-based theory of the firm contends that a firm has distinct internal and external coalitions (Anderson 1982).

Similarly, at a lower level of analysis, selling teams have to simultaneously manage both internal and external relationships. In its external role, the sales organization takes a position that will assure customer satisfaction while being cognizant of the goals and objectives of the functions within the firm. In its internal role, the sales organization must effectively communicate and negotiate with top management and other functions across the firm in order to achieve these strategic objectives (Anderson 1982).

As shown in Fig. 1, existing studies either examine external relationships between the customer and customer-related teams or service employees (e.g., De Jong et al. 2004; de Ruyter et al. 2009; Stock 2006) or internal relationships with other functions (e.g., Bharadwaj et al. 2007; Holger et al. 2010; Rouziès et al. 2005). The management literature focuses on exploring boundary spanning relationships and the impact within the team (e.g., Ancona 1990; Ancona and Caldwell 1992; Marrone et al. 2007). There is little research that simultaneously examines internal, external, and within-team boundary spanning activities.

By ignoring the tradeoffs and potential conflicts inherent in managing several interactions concurrently, previous research does not provide a comprehensive and nuanced understanding of sales team boundary spanning activities. Specifically, customer requests might be too costly for the firm to satisfy (Lee et al. 2012) and the need to manage multiple internal and external relationships may place significant demands on the team.

While the constituency-based theory of the firm and the boundary spanning literature both identify distinct internal and external coalitions within the firm, they do not specifically address the demands or resources that influence the team as it interacts with both coalitions. We draw from the JD-R theory to shed light on this issue.

Job demands and resources

Job demands are the physical, psychological, or organizational aspects of the job that require sustained effort or skill and are associated with certain psychological costs (Bakker and Demerouti 2007). Examples of job demands include high work pressure and demanding interactions with clients. In the sales scenario, customers have the power to place intense performance demands on sales teams, which can cause an increase in job demands (Porter 1980). Simultaneously, the team also needs to meet firm performance objectives because the customer contributes to the overall success of the firm (Cespedes 1995; Homburg et al. 2002; Morgan 2012). This can result in pressure from customers to meet their needs and firm pressure to meet profitability and sales goals which can lead to stress that negatively affects organizational outcomes (Bakker et al. 2010; Hambrick et al. 2005).

In addition to job demands, sales teams also require job resources, which are aspects of the job that allow employees to meet work goals or to reduce or cope with job demands (Bakker and Demerouti 2007). Previous research shows that in customer-oriented scenarios, job resources interact with job demands to reduce the negative impact of job demands on performance (Miao and Evans 2013; Zablah et al. 2012a). In fact, when facing demanding job requirements, such as within the dedicated team, the beneficial impact of resources is often enhanced (Bakker and Demerouti 2007). Sales teams encounter a combination of job demands and resources as they address customer and firm objectives.

Integrating team selling, boundary management, and JD-R research

We integrate the three research streams to capture internal and external factors that jointly influence dedicated sales team outcomes. Developing and maintaining buyer–seller relationships requires participation from both the buying and selling firms, resulting in an increased emphasis on the team to support interactions between the selling firm and the customer (McFarland et al. 2006; Weitz and Bradford 1999).

Our integration of the three research streams leads to a novel insight that underlies our rationale for the interaction effects of various boundary spanning activities. We argue that the multiple sales team–customer, top management, cross-functional, and within-team interactions not only jointly facilitate the value creation (e.g., customer satisfaction) and value appropriation (e.g., team performance) processes but also create job demands or job resources based on the desired outcome. Specifically, boundary spanning serves to either facilitate team *processes* or meet desired *outcomes*. As a result, the performance challenge of multiple outcomes places high job demands on the sales team. Internal interactions can then either increase demands, if they run contrary to a desired outcome, or provide resources that support internal team processes to reduce the overall demands placed on the team through improved insights.

Conceptual model

We present the conceptual model in Fig. 2. We focus on team-level variables and performance measures because business measures are rarely explored in the boundary spanning literature (de Jong et al. 2004) and they are not always compatible (Cespedes 1995; Morgan 2012; Slater and Olson 2000).

We capture outcomes in terms of both an external customer related metric, i.e., *perceived customer satisfaction with the team*, and an internal firm metric, i.e., *team performance*. Perceived customer satisfaction with the team refers to the evaluation of meeting customer expectations as determined by the sales team. Prior research on teams suggests that a key outcome of work teams is that the output of the team exceeds

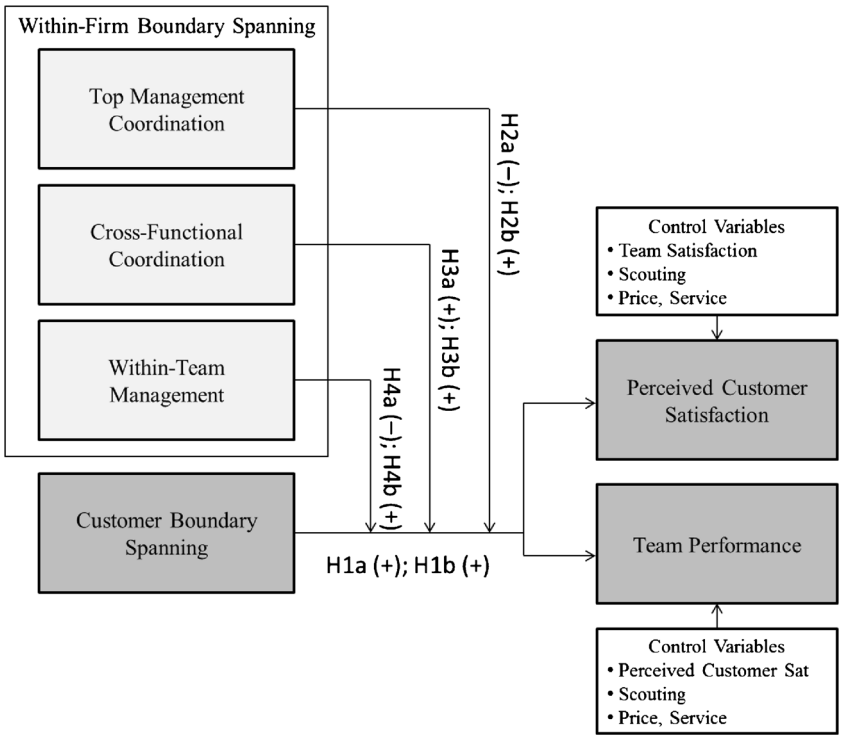

Fig. 2 Conceptual framework

expectations of people who review it, which captures the importance of customer satisfaction (Hackman 1987). We define team performance as how the team meets its profitability, profit growth, sales, and sales growth objectives. While customer and firm objectives can support each other, sales teams often experience tension when simultaneously meeting both goals.

Our conceptual model includes the main effect of *customer boundary spanning* on perceived customer satisfaction and team performance and the moderating effects of *within-firm top management coordination*, *within-firm cross-functional coordination*, and *within-team management*. The customer boundary spanning construct consists of interactions between the sales team and the customer to meet sales team objectives. Sample activities include creating a common vision, setting mutual goals, and working with the customer to achieve business results.

Next we capture the coordination activities occurring within the firm. Although the dedicated sales team is a multifunctional team, it is not entirely self-sufficient. It relies on both top management and various functions within the firm for direction, resources, and to complete sales tasks (Ancona and Caldwell 1992). Top management coordination occurs at the management level within the firm and captures coordination with senior management, sales team executives, other functional executives, and other dedicated sales team managers for input on both team and firm objectives. Task coordination also plays an important role in team success because it determines the ability of the sales team to accomplish its goals by coordinating with other internal organizations (Ancona and Caldwell 1992). We capture these activities through the variable cross-functional coordination. This construct involves the level of coordination and interaction with other departments. Previous research has paid little attention to cross-functional interactions between sales and other functional groups (Homburg et al. 2002). A final component of boundary spanning activities is within-team management, which reflects the internal interactions of the team in terms of vision, resources, and results. Within-team management is an important moderator because groups often perceive processes as divided into internal and external components (Choi 2002).

Research hypotheses

Main effects of customer boundary spanning on customer satisfaction and performance

In the case of dedicated teams, linking a full-time sales team to a single customer provides access to both formal and informal relationships between the two parties. The resources invested in establishing the relationship create a long-term commitment which provides a distinct and well-established means of coordination between the buyer and seller (Bradford et al. 2010; Ganesan 1994; Palmatier et al. 2006). Strong ties created by such relationships also engender access to private information and solidarity during customer boundary spanning activities

(Tuli et al. 2010). This private information enables the team to deliver more accurately to the customer needs than competitors who do not have access to such boundary spanning. Delivering to customer needs enhances customer satisfaction and provides the team with better performance results. Moreover, prior research has demonstrated that customers in a cooperative relationship report the highest level of satisfaction with suppliers, and that customer relationships positively influence performance outcomes (Cannon and Perreault 1999; Morgan and Hunt 1994; Palmatier et al. 2006). As a result, we propose the following:

H1: Customer boundary spanning activities positively influence (a) perceived customer satisfaction and (b) team performance.

Interaction effects of top management coordination and customer boundary spanning

Customer satisfaction as an outcome In the dual role of managing firm- and customer-level boundaries, the team has demands placed on it from both the customer and top management because of the importance of the relationship. Top management rewards are often aligned with company performance through stock options and performance bonuses, which results in a performance orientation (Hambrick et al. 2005). On the other hand, customer-facing teams may perceive satisfying customer needs as more consistent with their job function (Jones et al. 2003) and a key component of successful boundary spanning (Zablah et al. 2012a). For example, internal firm performance metrics often focus on short term criteria while the sales team's objective is to develop long term customer relationships through customer satisfaction (Anderson 1982). As teams integrate customer and top management inputs to satisfy customers, positive outcomes with the client may conflict with outcome metrics relevant to the firm, and vice versa, resulting in increased job demands for the sales team (Katz and Kahn 1978; Marrone et al. 2007).

As a result, we propose that interaction with top management hinders the direct relationship between customer boundary spanning and customer satisfaction by increasing job demands. When both types of boundary spanning are incorporated, coordination with top management, whose focus is on firm metrics of performance, can attenuate the impact of customer boundary spanning on customer satisfaction. Therefore, we propose the following:

H2a: Higher levels of firm top management coordination weaken the relationship between customer boundary spanning and customer satisfaction.

Team performance as an outcome In contrast, when addressing team performance objectives, coordination with top management provides access to resources, i.e., management serves as a job resource rather than a job demand for the sales team. Job resources may come from the organizational level of the firm (Bakker and Demerouti 2007), and top managers will reflect their performance orientation when coordinating with the sales team. Since both parties are working toward shared performance goals such as sales, growth, and profitability, managers outside the sales team will be more likely to provide resources to support those objectives.

Top management coordination can also enable performance goals by buffering the job demands placed on the team by the customer. If top management coordination clearly articulates the alignment of team and firm objectives, the team will feel less pressure to meet customer demands at the expense of firm performance goals and will dedicate resources to internal activities (Choi 2002). In other words, the sales team can evaluate customer requests in terms of their performance impact instead of strictly focusing on satisfying the customer at all costs, which can lead to escalating customer demands, wasted resources, and a less profitable relationship (Homburg et al. 2011; Lee et al. 2012; Siders et al. 2001). By reducing the tension between meeting customer and firm-level objectives, coordination with top management can make the sales team more confident in their response to the customer. Overall, top management coordination provides resources to simultaneously meet firm and customer objectives or buffer customer demands on the sales team by supporting firm-oriented goals. Thus, we propose:

H2b: Higher levels of firm top management coordination strengthen the relationship between customer boundary spanning and team performance.

Interaction effects of cross-functional coordination and customer boundary spanning

In order to meet long-term customer-oriented objectives, the sales function should develop relationships with other functions within the firm to acquire resources (Anderson 1982). The functionally diverse structure of the dedicated sales team provides multiple lenses into customer needs, a variety of resources within the team to meet those needs, and closer ties with other functions within the firm (Bunderson and Sutcliffe 2002; Weitz and Bradford 1999). However, many scenarios exist in which the resources of the firm are necessary to supplement the knowledge within the team. As access to customer information increases, the team's multiple functional connections improve access to information outside the team. The sales team can then quickly access functional resources to respond to customer requests that cannot be met within the team (Edmondson 1999). The combination of high levels of cross-functional activities within the firm and high levels of customer boundary spanning activities increases access to

information resources, which then reduce job demands, thereby increasing the ability of teams to meet performance objectives by making their jobs easier.

H3: Higher levels of firm cross-functional coordination strengthen the relationship between (a) customer boundary spanning and customer satisfaction and (b) customer boundary spanning and team performance.

Interaction effects of within-team management and customer boundary spanning

The final component of boundary spanning is how teams fulfill external demands while preserving internal dynamics, or within-team management (Choi 2002; Marrone et al. 2007). As mentioned earlier, within-team management refers to the ability of the team manager to incorporate resources, goals, and skills in the team. We believe that the level of within-team management can function as either a demand or a resource based on the preferred outcome.

Customer satisfaction as an outcome To satisfy the customer, it is important for the sales team to have an organizational structure and culture that provides the best support for the customer's needs (Bradford et al. 2012; Homburg et al. 2011). However, a team has limited resources that must be allocated between within-team and external activities (Choi 2002), and if it focuses too heavily on internal operations, it can fail to use external information or perceive changes in its environment (Boyd et al. 1993; Janis 1982). At high levels of within-team management, the focus is on addressing internal team dynamics, depleting the manager's resources available to gather customer information. Because the customer is the singular focus of the dedicated team, this reduction in customer-oriented job resources increases strain on the sales team and can lead to a negative impact on customer satisfaction (Bakker and Demerouti 2007). On the other hand, low levels of within-team management allow the team to focus team resources on gathering and disseminating customer information instead of internal team processes. Thus, we propose that higher levels of within-team management increases demands on the team, hindering its ability to meet customer needs:

H4a: Higher levels of within-team management weaken the relationship between customer boundary spanning and customer satisfaction.

Team performance as an outcome For the team performance outcome, the sales team integrates both firm and customer information to meet team performance objectives. Because of the close relationship between the team and the customer, the commitment to the customer may drain away the resources managers have available to guarantee the team an organizational perspective (Siders et al. 2001). This results in an additional need to manage the team through information and resources from the firm to balance the customer and the firm. As a result, higher levels of within-team management provide additional resources to the team around shared firm and team performance objectives. Similar to top management coordination, the team then takes performance objectives into account when addressing customer demands. Customer demands are evaluated but not met at all costs buffering the team from potential performance demands, especially at high levels of customer boundary spanning. Therefore, we propose the following:

H4b: Higher levels of within-team management strengthen the relationship between customer boundary spanning and team performance.

Method

Data

The dataset was provided to us by a third-party firm that requested confidentiality. The firm collected the data by sending a survey to 201 United States-based dedicated sales teams of a large multinational firm. The data were made available to us after being aggregated to the team level. Of the 201 surveys sent, 170 surveys with complete information from every team member were received, for a response rate of 85 %. We dropped three additional teams on the basis of outlier analysis of their extremeness and influence using the calculated Cooks' D and DfBeta statistics (Belsley et al. 1980, p. 13). The end result was a total of 167 usable surveys. The final sample was representative of the teams used by the firm in terms of size, ranging from 4 to 12 members, and longevity. Previous research has shown that the perceptions of individual team members are meaningful for team level analysis (Chen et al. 2002; de Ruyter et al. 2009; Mathieu et al. 2000).

Addressing common method bias Because all data except for the team performance measure involve user responses from a single survey, we address the potential for common method bias (CMB) by following Podsakoff et al.'s (2012) recommendations. In terms of procedural methods, we employed two recommended steps. For the team performance dependent variable, the predictor and criterion came from different sources to control for CMB. For the perceived customer satisfaction dependent variable, the question on perceived customer satisfaction was separated from the main effect and moderator items within the questionnaire. Finally, Podsakoff et al. (2012, p. 565) note that method bias can only deflate and not inflate quadratic and

interaction effects. Since the primary focus of this research is on interaction effects, method bias would not account for any statistically significant interaction effects observed (Evans 1985; Siemsen et al. 2010).

Measures

Independent and moderating variables The measures were assessed using a seven-point Likert scale ranging from 1 ("strongly disagree") to 7 ("strongly agree"). The customer boundary spanning scale and within-team management scales were similar to the scales utilized by Marrone et al. (2007). Specifically, customer boundary spanning (α=.92) and within-team management (α=.87) were measured with a six-item scale for each construct, within-firm cross-functional coordination (α=.77) with a five-item scale, and within-firm top management coordination (α=.78) with a four-item scale. The top management and cross-functional scales are new scales created to capture the variety of sales team interactions. We created a composite score for each construct by averaging all the items. To facilitate interpretation of the interactions, we mean-centered all the variables in the interactions (Aiken and West 1991).

Dependent variables The dependent variable, *perceived customer satisfaction with the team*, was measured with a single item that captured how satisfied the customer is with the sales team as reported by the sales team. Although objective measures are preferable, a perceptual measure can be used when an accurate objective measure is not available or the alternative is to remove the variable from the research design (Dess and Robinson 1984). The single-item scale was similar to the measure used in Bolton and Lemon (1999). Sales *team performance* was measured using a summated index of the sales team's performance reflected by sales, sales growth, profit growth, and profitability. The supervising managers of the dedicated sales teams recoded the team's performance on the four performance items into three levels of performance: low, medium, and high. The four items were summated into a single score. The distribution of performance ratings for the 167 sales teams is 32.3 % low, 32.3 % medium, and 35.3 % high.

Control variables We also included several control variables in the model. The boundary spanning activity of *scouting* served as a control to capture additional non-customer boundary spanning activities. Scouting was measured with a five-item scale (α=.76) adapted from Ancona and Caldwell (1990). We included *team satisfaction* as a control when using customer satisfaction as a dependent variable because it can be an antecedent of customer satisfaction (e.g., Heskett et al. 1994). *Team satisfaction* consists of a single measure that captured the satisfaction level of the team. *Perceived customer satisfaction* served as a control for the team performance model to reflect the external impact of the variable. Finally, we controlled for competitive advantages in *price* and *service* across the various sales teams. These controls prevent team-specific competitive advantages from influencing the various boundary spanning activities. All the scales and factor loadings are provided in the Appendix.

Analytical strategy

We analyzed the data using seemingly unrelated regression (SUR) (Zellner 1962) for several reasons. First, it allowed us to model both outcomes simultaneously. Sales teams face a constant influx of information and must make decisions about how to use the information to simultaneously meet both team and customer goals. The SUR provides a means to use two equations to capture the impact of these multiple information sources and outcomes. Second, SUR allows us to control for the correlations in the error terms across the two equations. Previous research has shown a relationship between customer satisfaction and performance; however, our proposed model should show that boundary spanning activities have asymmetric impacts on each outcome. The significant correlation between the two outcomes supports the relationship between the two outcomes. Thus, we selected SUR as the correlation between errors in the two equations can be exploited to enhance estimator efficiency (Cameron and Trivedi 2010).

Handling endogeneity An important consideration in the analysis is the potential endogeneity bias that might ensue because either (1) the decisions of the dedicated sales teams to boundary span with the customer are motivated by certain customer characteristics and performance expectations or (2) sales teams with significant levels of customer boundary spanning have self-selected themselves to respond to the survey. In both scenarios, the relationship between customer boundary spanning and the two outcomes of interest might be an artifact of the exclusion of firms with lower levels of customer boundary spanning. To correct for this bias, we follow the procedure Garen (1984) outlines. First, we regressed customer boundary spanning on potential antecedents, such as information availability and resource availability, and obtained the predicted error:

$$\mathrm{CBS} = \Delta \times + \upsilon, \tag{1}$$

where CBS is customer boundary spanning, x is a matrix of antecedents, Δ is a matrix of coefficients, and υ is the standard error term. Second, we ran the main regression model and included two additional terms: the estimated error term from Eq. 1 and a product of the error term and customer boundary spanning as the bias may depend on the levels of customer boundary spanning (Garen 1984; Grewal et al. 2010). Specifically, we estimated the following two equations

simultaneously:

$$\begin{aligned}\text{CSAT} &= \beta_0 + \beta_1 \times \text{CBS} + \beta_2 \times \text{TOP} + \beta_3 \times \text{CROSS} + \beta_4 \times \text{WITHIN} \\ &\beta_5 \times \text{TSAT} + \beta_6 \times \text{SCOUT} + \beta_7 \times \text{PRICE} + \beta_8 \times \text{SERV} \\ &+\beta_9 \times \text{CBS} * \text{TOP} + \beta_{10} \times \text{CBS} * \text{CROSS} + \beta_{11} \times \text{CBS} * \text{WITHIN} \\ &+\alpha_{\hat{\upsilon}} + \alpha_{\hat{\upsilon}\text{CBS}}\text{CBS} + \varepsilon. \end{aligned} \quad (2)$$

$$\begin{aligned}\text{PERF} &= \beta_0 + \beta_1 \times \text{CBS} + \beta_2 \times \text{TOP} + \beta_3 \times \text{CROSS} + \beta_4 \times \text{WITHIN} \\ &+\beta_5 \times \text{CSAT} + \beta_6 \times \text{SCOUT} + \beta_7 \times \text{PRICE} + \beta_8 \times \text{SERV} \\ &+\beta_9 \times \text{CBS} * \text{TOP} + \beta_{10} \times \text{CBS} * \text{CROSS} + \beta_{11} \times \text{CBS} * \text{WITHIN} \\ &+\alpha_{\hat{\upsilon}} + \alpha_{\hat{\upsilon}\text{CBS}}\text{CBS} + \varepsilon. \end{aligned} \quad (3)$$

where CSAT is perceived customer satisfaction, PERF is team performance, CBS is customer boundary spanning, TOP is top management coordination, CROSS is cross-functional coordination, WITHIN is within-team management, TSAT is team satisfaction, SCOUT is scouting, PRICE is competitive advantage in price, SERV is competitive advantage in service, and α_{υ} and $\alpha_{\upsilon\text{CBS}}$ are self-selection correction coefficients, with υ CBS representing the product of the estimated error term from Eq. 1 and customer boundary spanning.

Hypothesis testing

Measurement model To address potential validity concerns associated with using data collected by the firm, we conducted exploratory (EFA) and confirmatory factor analysis (CFA) (Gerbing and Anderson 1988). We included the latent variables of customer boundary spanning, the three within-firm coordination moderators, and the scouting control in our analysis. The EFA did not result in any significant cross-loading and produced singular loadings on each of the latent variables. Measure reliability and validity were then assessed using CFA. All of the constructs exhibited composite reliabilities above the recommended threshold of .70 (Bagozzi and Yi 1988). Furthermore, the Cronbach's alpha of each measure was over .75. For each of the latent constructs, the factor loadings were in the range from .50 to .86, with a majority loading greater than .70 (see Appendix). All loadings were statistically significant ($p<.001$), demonstrating convergent validity (Bagozzi et al. 1991).Finally, the CFA analysis exhibited adequate model fit (χ^2=458.90, d.f. = 265, χ^2/d.f.=1.73, $p<.001$; root mean square error of approximation =.066, CFI=.901). While the χ^2 was significant, the model shows good fit when evaluating the ratio of the χ^2 to the degrees of freedom (Jöreskog 1969) as it falls below the commonly used criteria for good fit which range anywhere from less than 5 to less than 2 (Wheaton et al. 1977). The CFI results are slightly below the recommendations of Hu and Bentler (1998), but Bagozzi and Yi (2012) suggest that these criteria may be too stringent and there is some ambiguity around acceptable cutoffs.

Next, we calculated the average variance extracted (AVE) for each of the latent constructs. All the constructs were at or above the .50 threshold, except for within-firm cross-functional coordination. The AVE of cross-functional coordination was .42; however, we retained it in the model because it captures the theoretical aspect of cross-functional coordination. We also used AVE to test discriminant validity by checking whether the AVEs for the latent variables were greater than their contribution to other constructs. The AVE of each construct was compared with squared correlation of all other constructs and met the above criteria, indicating discriminant validity (Fornell and Larcker 1981). Table 1 provides a summary of the descriptive statistics and the correlation matrix.

We summarize the results in Table 2. Given the inclusion of interaction variables, we examined the variance inflation factors (VIFs) to check for multicollinearity. The mean VIF was 1.61, and the maximum VIF was 2.34, well below the threshold, indicating that multicollinearity was not an issue in this study (Draper et al. 1966).[1] As Table 2 shows, the model explains a system R-square of 34 %. The incremental variance explained by the inclusion of the interaction variables is statistically significant (ΔR^2=.04, F=9.27; $p<.05$).

Main effects-only model Customer boundary spanning has a positive and significant effect on customer satisfaction (β=.31, $p<.01$) supporting H1a. Team performance does not have a significant effect, but is in the positive direction (β=.10, *ns*). This result does not support H1b.

Top management coordination moderating effect The interaction between customer boundary spanning and top management coordination is negative when customer satisfaction is the outcome (β=−.12, $p<.01$). This result provides support for H2a. At low levels of customer boundary spanning, high levels of firm top management coordination lead to higher levels of customer satisfaction. However, at high levels of customer boundary spanning, low top management coordination leads to more satisfied customers (see Fig. 3, Panel A).

The results also show that the interaction between customer boundary spanning and top management coordination is positive and significant for team performance (β=.10, $p<.01$),

[1] As an additional test, we ran an item-by-item correlation of the within-team management and customer boundary spanning variables and removed item 3 from the within-team variable because of its high correlation with item 3 of customer boundary spanning. We then reran the seemingly unrelated regression model with the new within-team management variable and interaction term. The results were consistent with the previous model.

Table 1 Descriptive statistics, reliability, and correlations

Variables	M	SD	AVE	CR	1	2	3	4	5	6	7	8	9	10
1. Team performance	2.03	0.82	– [a]	– [a]	– [a]									
2. Perceived customer satisfaction	5.67	0.99	– [a]	– [a]	.35**	– [a]								
3. Customer boundary spanning	4.97	1.16	.65	0.92	.30**	.42**	.92							
4. Top management coordination	4.07	1.11	.49	0.79	.10	.15*	.24**	.78						
5. Cross-functional coordination	3.54	0.93	.42	0.78	.09	.12	.25**	.32**	.77					
6. Within-team management	5.45	0.80	.55	0.87	.18	.21**	.65**	.25**	.30**	.87				
7. Scouting	3.47	0.99	.49	0.77	.11	.18*	.30**	.27**	.35**	.33**	.76			
8. Team satisfaction	5.38	0.94	– [a]	– [a]	.28**	.38**	.27**	.15*	.21**	.27**	.14	– [a]		
9. Competitive advantage in price	3.30	1.33	– [a]	– [a]	.07	.01	.02	.16*	.24**	–.05	.16*	.10	– [a]	
10. Competitive advantage in service	5.10	1.26	– [a]	– [a]	.12	.42**	.26**	.18*	.23**	.11	.26**	.10	.11	_ [a]

*p<.05. **p<.01. [a] Single-item measure

N=167. Cronbach's alpha is on the diagonal, *CR*, composite reliability

supporting H2b. At high levels of customer boundary spanning, high top management coordination has a positive impact on performance. At low levels of customer boundary spanning, high levels of top management coordination have the opposite effect and lower performance (see Fig. 3, Panel B).

Cross-functional coordination moderating effect The results show a significant, positive moderating effect of cross-functional activities on customer boundary spanning for the customer satisfaction outcome (β=.14, p<.01). Thus, the result provides support for H3a. High level of cross-functional coordination and customer boundary spanning provide the highest level of customer satisfaction, while high cross-functional coordination and low customer boundary spanning result in the lowest level of satisfaction (see Fig. 4, Panel A).

We next tested the interaction effect of firm cross-functional activities and customer boundary spanning on team performance. We predicted a positive interaction between firm cross-functional activities and customer boundary spanning activities; however, the results indicate a significant, negative moderating effect of cross-functional coordination on customer boundary spanning (β=−.14, p<.01). Thus, H3b is not supported. At low levels of customer boundary spanning, access to other functions increases performance, while at high levels of customer boundary spanning, low levels of cross-functional coordination lead to higher performance (see Fig. 4, Panel B).

Within-team management moderating effect The final interaction is between within-team management and customer boundary spanning. Though in the hypothesized direction, the results do not provide support for H4a, which proposes a negative moderating effect of within-team management on the relationship between customer boundary spanning and satisfaction (β=−.10, *ns*). For the interaction effect of within-team management and customer boundary spanning on team performance, the results provide support for H4b, which proposes a positive moderating effect (β=.13, p<.01). At high levels of customer boundary spanning, high within-team management has a positive impact on performance. However, at low levels of customer boundary spanning, high levels of within-team management inhibit team performance (see Fig. 5).

Controls As predicted by the service profit chain, team satisfaction has a positive significant effect on customer satisfaction (β=.28, p<.01), and customer satisfaction has a positive significant effect on performance (β=.29, p<.01). For the other controls, only competitive advantage in service has a significant positive effect on customer satisfaction (β=.35, p<.01). All the other controls are not significant.

Robustness checks

We tested for violations of standard regression assumptions regarding model misspecification using Ramsey's (1969) RESET test and normality using the Jarque–Bera test. None of these violations appear to be either generalized or problematic in our data. We reestimated the regression models with White's (1980) heteroskedasticity-consistent standard errors. The results remained stable, and the Breusch–Pagan test indicated that heteroskedasticity was not an issue. We also used alternative combinations of antecedents that were available in the survey to estimate the self-selection variables; the final regression results remained consistent.

Because team performance is an index measured on three levels, we tested the dependent variable as both a continuous and a categorical variable. The results showed no significant difference in the estimation based on the treatment of the performance variable, and the reported results are with team performance as a continuous variable.

Table 2 Results

	Hypothesis/ expected effect	Main effects model estimation with endogeneity/self-selection correction		Full model estimation with endogeneity/self-selection correction	
		Perceived customer satisfaction	Team performance	Perceived customer satisfaction	Team performance
Intercept		5.77** (.07)	2.02** (.07)	5.81** (.07)	1.97** (.07)
Main effects					
Customer boundary spanning	H1a (+); H1b (+)	.31** (.09)	.10 (.09)	.28** (.08)	.13* (.08)
Top management		.04 (.06)	–.02 (.06)	.02 (.06)	–.02 (.06)
Cross-functional		–.07 (.07)	–.02 (.07)	–.04 (.06)	–.05 (.06)
Within-team management		–.12 (.09)	.00 (.08)	–.12 (.09)	.02 (.08)
Interactions					
Customer boundary spanning × top management	H2a (−); H2b (+)			–.12** (.05)	.10** (.05)
Customer boundary spanning × cross-functional	H3a (+); H3b (+)			.14** (.06)	–.14** (.06)
Customer boundary spanning × within-team management	H4a (−); H4b (+)			–.10 (.06)	.13** (.05)
Controls					
Team satisfaction		.26**(.06)		.28**(.06)	
Perceived customer satisfaction			.28** (.07)		.29** (.07)
Scouting		.01 (.07)	–.02 (.07)	.01 (.07)	–.02 (.06)
Price		–.06 (.07)	.08 (.07)	–.07 (.06)	.08 (.06)
Service		.34** (.07)	–.10 (.07)	.35** (.07)	–.11 (.07)
Self-selection variables					
$\hat{v}$		–.10 (.21)	.46** (.20)	–.11 (.21)	.45** (.19)
$\hat{v}$ × CBS		–.31* (.15)	.13 (.15)	–.24 (.16)	.06 (.16)
Ordinary least squares F (p-value)		9.71 (.0001)	3.48 (.0004)	8.46 (.0001)	3.54 (.0001)
Ordinary least squares R^2 (R^2_{adj})		.38 (.34)	.18 (.13)	.42(.37)	.23(.17)
SUR system weighted R^2		.30	.34		

(1) A positive coefficient of $\hat{v}$ indicates that we have controlled for an upward bias of customer satisfaction/team performance due to the potential endogeniety of customer boundary spanning. A positive coefficient of $\hat{v}$ x CBS indicates that we have controlled for an upward bias of customer satisfaction/team performance due to the range of high customer boundary spanning levels

(2) The incremental variance explained (ΔR^2 =0.04) by the full model (control variables + main effects + interactions) over the constrained model (control variables + main effects) is statistically significant (F=9.27, p<0.05)

**p<.01. *p<.05

[a] We report the regression coefficient with standard errors in parentheses. Consistent with extant paradigms, for the hypothesized effects, we report one-tailed tests for statistical significance. We estimate both models using ordinary least squares and find that all results remain unchanged except for the interaction CBS and WITH in the customer satisfaction model turns significant. For the self-selection variables, we consider customer boundary spanning (CBS) a potential source of self-selection/endogeniety bias

Discussion

Recognizing the growing utilization of dedicated sales teams to manage large customer accounts, we attempt to advance extant research by focusing on the challenge these teams face in managing both customer and firm boundaries to deliver performance. We found support for our contention that coordinating information across multiple internal and external boundaries can create both job demands and job resources that work to both hinder and help the value creation and value appropriation processes.

Summary of findings and theoretical implications

Our study is the first to distinguish between customer and firm sales activities and the dual tension of managing both customer satisfaction and team performance. Therefore, our study makes important contributions to the team selling literature by integrating the sales team, boundary spanning, and JD-R literature to provide a more realistic and comprehensive understanding of sales teams' activities and performance. Our study also contributes to the boundary spanning literature by distinguishing between customer boundary spanning and

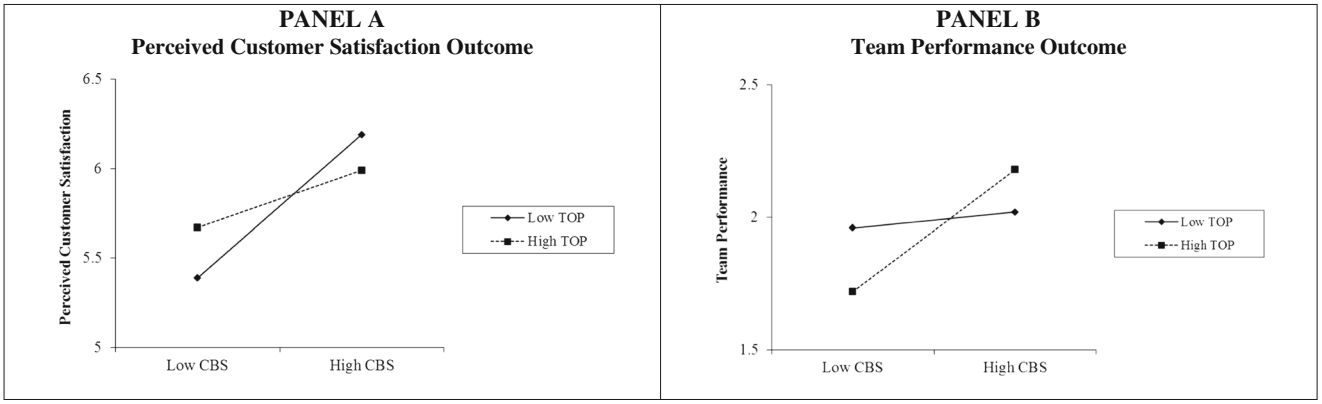

Fig. 3 Customer boundary spanning x top management coordination. *CBS*, customer boundary spanning; *TOP*, top management coordination

within-firm coordination activities and the dual tension of managing both. That is, we reveal both functional and dysfunctional interactions between customer and within-firm coordination, contrary to the overwhelmingly positive view found in the literature based on the examination of a single boundary (e.g., Ancona and Caldwell 1990, 1992; Miao and Evans 2013). Finally, our research expands the sales literature by incorporating two potentially competing team outcomes. In general sales teams will need to manage the tension between the two performance outcomes and will need to determine the impact of various types of within-firm coordination.

Previous research has examined boundary spanning from one organization to another either inside or outside the firm or as an activity that affects within-team management (Marrone 2010). We extend and contribute to the literature by simultaneously examining three different sources of sales team activity: those from sales team to firm, those from sales team to customer, and those within the sales team. As a sales manager noted, "There are three essential circles here, there's the customer, the company, and there's the team." The results suggest that customer boundary spanning and within-firm coordination are distinct forms that interact to affect customer satisfaction and performance in asymmetric ways. Harking back to the three research questions we raised previously, we uncovered empirical evidence that has important implications for both theory and practice.

Performance implications of customer boundary spanning We examined how external customer boundary spanning activities affect customer satisfaction and team performance. This research shows that, other things equal, customer boundary spanning has a positive effect on customer satisfaction, in support of previous studies that espouse the cooperative versus competitive nature of customer relationships (Tuli et al. 2007; Tuli et al. 2010). However, customer boundary spanning has a directional, but not significant, impact on team performance. That is, other things equal, customer boundary spanning does not necessarily lead to team performance. Nevertheless, we feel that the results of the main-effects model support the cooperative nature of customer relationships.

Interaction of within-firm coordination and customer boundary spanning The results suggest that the relationships between customer boundary spanning and customer satisfaction and sales team performance are subject to several contingencies. We find support for the contingent expectations that externally focused customer boundary spanning plays two different roles to internally focused top management coordination: a *substitute* in delivering customer satisfaction and a *complement* in delivering team performance. In addition, customer boundary spanning is effective when the level of cross-functional coordination is high when delivering customer satisfaction. In contrast, when the metric is internal—namely, team performance—cross-functional coordination exerts a negative moderating effect on customer boundary spanning. This finding suggests that for superior team performance, customer boundary spanning is effective when it is high and the level of cross-functional coordination is low. Finally, we find that within-team management is complementary in delivering team performance. These results contribute to the boundary spanning and team selling literature by moving from a main effects framework to a contingency framework and showing the potential negative interactive effect of within-firm coordination activities on customer satisfaction or team performance.

Outcome of boundary spanning activities: internal versus external outcomes By using perceived customer satisfaction and team performance, our study employs two team-level variables to measure the outcome of boundary spanning activity. This is especially relevant, considering that these two outcomes often result in tension within the sales team. In the face of competing needs, this research provides evidence that the different outcomes can affect whether within-firm coordination or customer boundary spanning activities are more important in meeting team objectives. In other words, it is not as simple as improving customer satisfaction to meet performance objectives; there is a point at which the cost

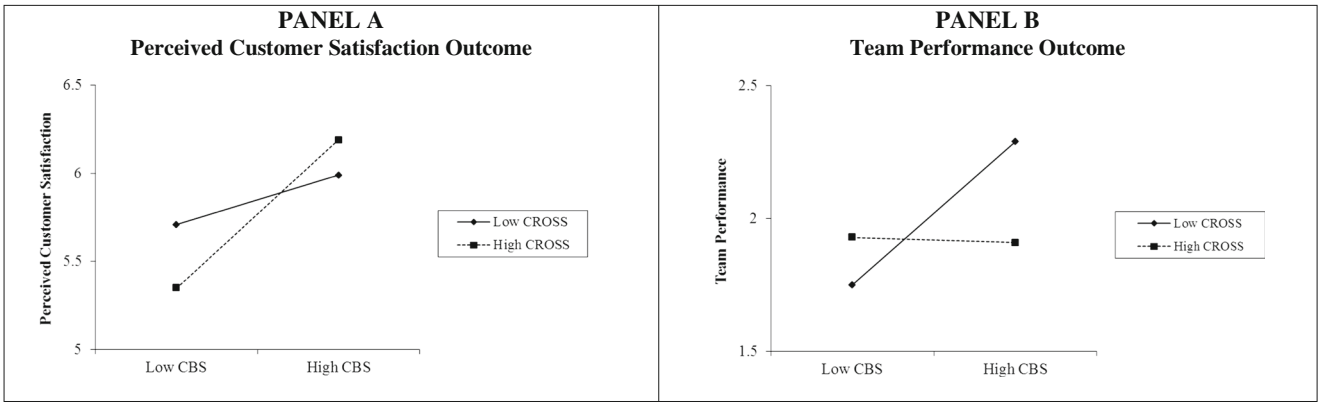

Fig. 4 Customer boundary spanning x cross-functional coordination. *CBS*, customer boundary spanning; *CROSS*, cross-functional coordination

and resources associated with meeting customer satisfaction objectives must be considered (Homburg et al. 2011). However, the performance paradox that stems from potentially conflicting demands of varied internal and external constituencies can also positively influence team performance. The ability to manage seemingly paradoxical performance outcomes can lead to increased learning, creativity, and flexibility within the team. By effectively managing the tension between the two demands, sales teams can reach an equilibrium that allows for short term excellence and long-term success (Smith and Lewis 2011).

Managerial implications

Our findings have several important implications for managers. As sales teams grow and become more structurally complex, managers increasingly need to communicate with multiple parties. Dedicated sales teams are created to enhance cooperation between buyer and seller and to satisfy their needs quickly through the represented functions available within the team. The internal sources of information, though valuable when customer boundary spanning is low, do not provide an acceptable substitute for buyer–seller cooperation. However, when integrating information from the customer and the selling firm while managing a multifunctional team, managers must determine how to manage multiple sources of information. We summarize the interaction effects of within-firm boundary spanning activities on both outcomes to inform managers of the complementary and substitution effects of internal and external information and resources.

Joint impact of customer and within-firm activities on customer satisfaction When customer satisfaction is the manager's primary focus, developing a clear understanding of customers and their needs through customer boundary spanning provides the best means to improve customer satisfaction across all interaction effects. By working closely with the customer, developing a common understanding between the two parties, and sharing information across organizations, the dedicated team is better able to meet customer satisfaction objectives. Interestingly, managers' ability to incorporate information from either top management or other functions with customer boundary spanning activities has differing effects on customer satisfaction. The best source of information for

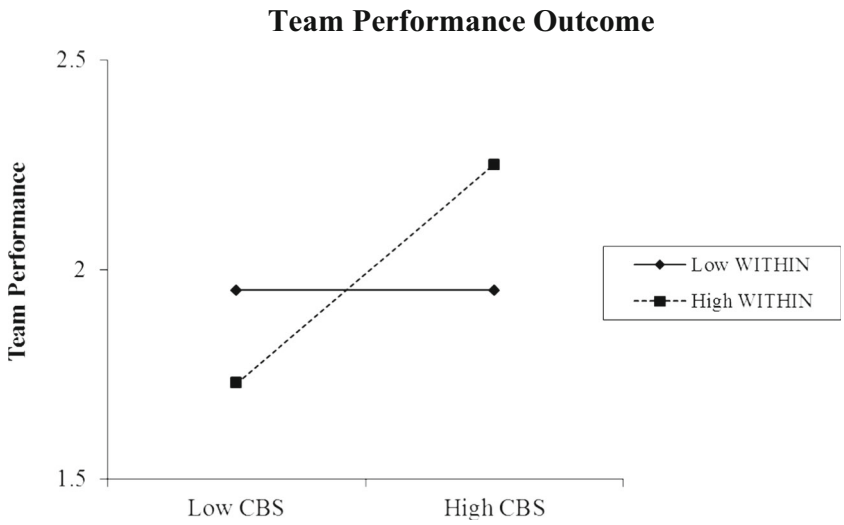

Fig. 5 Customer boundary spanning × within-team management team performance outcome. *CBS*, customer boundary spanning; *WITHIN*, within-team management

satisfying customers comes from top managers within the firm when there is limited access and input from the customer. Other managers within the firm have experience with a variety of customers, and their input provides best practices that can improve overall customer satisfaction. However, as the level of customer boundary spanning increases, managers should focus more on the customer. The generalized input received from top management, based on experience with other customers, may not be consistent with the unique requirements of a specific customer. Integrating both can attenuate the positive impact of customer boundary spanning and result in a less optimal outcome than using the more customized source of information.

However, managers should increase coordination with other functions within the firm in combination with customer boundary spanning to improve customer satisfaction. The findings indicate that at high levels of customer boundary spanning the multifunctional aspects of the dedicated sales team enable managers to quickly reach out to the parent organization for input on customer requests that cannot be addressed within the team resulting in more satisfied customers. However, at low levels of customer boundary spanning, managers should have a limited need to reach out to other functions. Because there is little customer driven input, solutions should be available within the team. As a result, low levels of both lead to more satisfied customers.

Joint impact of customer and within-firm activities on team performance For team performance, the combination of high levels of customer boundary spanning and within-firm activities have a minimal or negative effect, the opposite of what managers experience when focusing on customer satisfaction. Managers that excessively focus on the customer may overcommit resources to the relationship which, while satisfying the customer, reduces overall profitability (Homburg et al. 2011). This is especially critical in the case of dedicated sales teams. Because they are created to service large customers, they have a tendency to go native, and these actions can have a direct impact on overall firm profitability. By incorporating firm objectives into its day-to-day interactions with the customer, the team is less likely to spend excess resources in meeting customer needs. The asymmetric interaction results for customer satisfaction and team performance indicate that managers need to be aware of multiple outcomes and how they combine firm and customer information.

The highest level of performance occurs when managers combine top management and customer inputs. Top-level information from within the firm provides managers clear insight into the organizational goals of the firm, and the combination of customer and firm boundary spanning enables the sales team to incorporate customer and profitability objectives to meet team performance objectives. We also find that at low levels of customer boundary spanning, high levels of top-level coordination can reduce the effectiveness of team performance because teams become increasingly focused on firm objectives, leading to an inability to integrate customer needs with internal firm objectives. We find similar results with the within-firm management interaction. The results suggest that high levels of within-team management enable managers to clearly integrate firm goals and objectives into the team. Because the team has a high level of understanding of both team and customer objectives, it performs better.

However, contrary to expectations, increased levels of cross-functional coordination can decrease team performance when combined with customer boundary spanning. When there is limited customer information, input from other functions provides managers with better access to overall organizational needs. However, at high levels of customer boundary spanning, cross-functional coordination has a negative effect. Because dedicated teams have a variety of functions, they are largely self-sufficient, and when customer boundary spanning information is available, managers should be able to readily respond to customers. Higher levels of cross-functional coordination indicate that the sales team does not have the necessary internal resources and cannot perform at the same levels as other teams.

Limitations

This research has several limitations. First, the study is cross-sectional. Because our analytical method controls for endogeneity, it help us address one of the key limitations of cross-sectional data. Moreover, cross-sectional studies are commonly found in the marketing literature. Notwithstanding, a longitudinal study that uses data collected from each sales team to determine how the relationship develops over time would provide additional insights into the dynamic impact of boundary spanning on satisfaction and performance. Next, we were limited by using dedicated sales teams from a single firm which may limit generalizability. When examining team selling it is often difficult to collect primary data (Jones et al. 2005). A study that captures various dedicated sales teams from the seller's perspective or even dyadic data would provide additional insights. However, given the large number of selling teams and the controls around price and service, the single firm we examined provides a reasonable view into boundary spanning activities.

The dataset itself also has several limitations. First, the data were aggregated at the team level, so we do not have the responses of individual team members. As a result, we do not have control variables to capture differences across teams in terms of size, tenure and diversity. Our focus was on team-level interactions, so the aggregated responses adequately meet the study's needs. Another limitation is that we only have single item measures of the dependent variables. The requirements of the participating firm limited the ability to use multi-item scales. However, previous research has effectively incorporated

single item measures of customer satisfaction (e.g., Bolton and Lemon 1999). A final limitation is that we only have data from the sales team and not the customer. As a result, we cannot control for customer characteristics and have only a perceptual measure of customer satisfaction. Ideally, we would like to have input from the customer. However, previous research indicates that in general contact employees are good sources of information on customer attitudes (Bitner et al. 1994) and a perceptual measure can be used when an accurate objective measure is not available (Dess and Robinson 1984).

Future research

This study provides an introduction to the study of meeting the needs of multiple external organizations and the sales team at the same time. We identified select moderators to reflect the impact of organizational practices and attitudes on boundary spanning activities; however, other moderating factors may interact with the tradeoffs made between external clients and the internal organization. Research should also examine dyadic moderators that are equally important to both parties, such as shared values, goals, or strategies. Another interesting area for exploration would be to examine the boundary spanning activities across a variety of firms. The business relationship and its character may play an important role on both internal and external relationships and the desired outcome. For example, a retailer such as P&G may have a very different relationship with Walmart than a construction firm does with its clients.

In addition to dedicated sales teams, this research may be applicable to other teams that span multiple boundaries within the firm. Previous research focuses on marketing relationships with other functions at a singular level, but not on how simultaneously maintaining multiple relationships affects team and firm outcomes. For example, the relationship between marketing and finance or technology may influence relationships with customers or outside vendors. Or within the firm, the relationship with finance and IT may interact to impact marketing and sales measures. The tension caused by managing activities with potentially conflicting objectives occurs across the entire organization.

A final opportunity exists in examining different types of relationships or relationship stages in which to evaluate boundary spanning activities. This study does not distinguish between the states of maturity of the relationship. Further research could explore whether the same relationships hold in situations in which the buyer–seller relationship is relatively new or when there exists asymmetry in power or dependency differs. An example of a discrepancy in power would be a situation in which there is a large buyer and small supplier, or vice versa. Overall, this research provides a first step in examining the process of managing multiple boundaries at the same time; many potential opportunities exist to further expand this research stream.

Appendix

Table 3 Scale items

Perceived customer satisfaction [a]	Team performance
Likert scale ranging from 1 (“not satisfied”) to 7 (“very satisfied”)[b]	Ranking: low, medium, high[b]
	Outside supervising managers assessment of the sales team
Consider all of your customer’s experiences with your team in general. Overall, how satisfied would you say the customer is with your sales team?	capturing the sales team’s potential in terms of sales, sales growth, profit growth and profitability
Customer boundary spanning[c]	Cross-functional coordination
Likert scale ranging from 1 (“strongly disagree”) to 7 (“strongly agree”)	Likert scale ranging from 1 (“strongly disagree”) to 7 (“strongly agree”)
My manager…	Extent of coordination and interface between the following groups and your manager
1…Creates a vision for the work and shares it with his/her customers (.86)	1 Finance (.77)
2…Enrolls all resources at the customer who are available to build their business results (.80)	2 Product supply (.65)
3…Sets stretch goals and shares mutual responsibility for results (.77)	3 Research and development (.56)
4…Builds skills and knowledge (mastery) of the customer (.81)	4 Management systems (.69)
5…Jointly works with the customer to eliminate issues and barriers in achieving business results (.82)	5 Human resources (.55)
6…Identifies, values, and leverages skills and assets of customers (.78)	

Table 3 (continued)

Top management coordination	Within-team management[c]
Likert scale ranging from 1 ("strongly disagree") to 7 ("strongly agree")	Likert scale ranging from 1 ("strongly disagree") to 7 ("strongly agree")
Extent of coordination and interface between the following groups and your Manager	My manager…
1 Other sales team managers (.50)	1…Creates a vision for the work and shares it with his/her team members (.61)
2 Directors/VPs for your sales team (.68)	2…Enrolls all resources in the sales team to build the team's business results (.72)
3 Sales top management (.82)	3…Sets stretch goals and shares mutual responsibility for results (.79)
4 Company executives (VP and above non-sales management) (.76)	4…Builds skills and knowledge (mastery) of his/her team members (.72)
Team satisfaction	5…Jointly works with sales team members to eliminate issues and barriers in achieving business results (.75)
Likert scale ranging from 1 ("strongly disagree") to 7 ("strongly agree")	6…Identifies, values, and leverages skills and assets of sales team members (.79)
All in all, we are satisfied with our work.[a]	Scouting [d]
Price, service	Likert scale ranging from 1 ("strongly disagree") to 7 ("strongly agree")
What is your level of competitive advantage in the market on these factors?	Indicate the degree to which these information types are available to your team
Likert scale ranging from 1 ("very low") to 7 ("very high")	Advance information on new technologies that may affect the team (.56)
Price[a], service[a]	Information on competitor's relative overall performance results (.60)
	Information on benchmarking inside your sales team (.73)
	Information on benchmarking outside your sales team (.80)

Standardized factor loadings are in parentheses. All factor loadings are significant at $p<.001$. [a] Adapted from Bolton and Lemon (1999). [b] Single-item measure. [c] Adapted from Marrone et al. (2007). [d] Adapted from Ancona and Caldwell (1990)

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