Trust in marketing's use of information from sales: the moderating role of power

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Abstract

Purpose – This paper aims to improve marketing managers' use of information from sales. The authors propose and empirically test the link between cross-functional trust and marketing's use of information from sales, and whether this effect is contingent on marketing's power within the firm.

Design/methodology/approach – Cross-sectional survey data were collected from 338 large-scale Hungarian firms. Structural equation modeling and bootstrap procedures were used to test the hypotheses.

Findings – The effect of cross-functional trust on marketing managers' use of sales information is fully mediated by sales–marketing integration and marketing's perception of information quality. However, the power of marketing within the firm moderates this mediating relationship.

Research limitations/implications – This paper provides empirical evidence concerning the mediating mechanisms of transferring cross-functional trust to marketing's successful use of information from sales. The findings imply that cross-functional trust can improve marketing managers' use of sales information of firms with powerful marketing units by facilitating integration, whereas it can improve the use of sales information of firms with low marketing power by improving marketing managers' perception of information quality from sales.

Originality/value – This is the first study that models and empirically investigates marketing managers' use of information collected by sales. The current study conceptually links and advances extant knowledge on the literatures on the sales–marketing interface and utilization of market information at the individual level and increases the understanding of how cross-functional trust contributes to information use under different contingencies of marketing power.

Keywords Cross-functional trust, Departmental power, Market information use, Perceived information quality, Sales-Marketing interface, SEM bootstrapping

Paper type Research paper

Introduction

The importance of market information in business activities has been a major concern during the past few decades, culminating in theoretical perspectives such as market orientation (Kohli and Jaworski, 1990) and the knowledge-based theory of the firm (Grant, 1996). While each of these theoretical approaches contributed significantly to our understanding of the critical importance of information to firm performance, the research building upon these theoretical foundations remains focused on the organizational level, and research about the use of market information at the individual level remains relatively scant (Korhonen-Sande, 2010; Rollins *et al.*, 2012; Ahearne *et al.*, 2013). Although organizational information processing is a firm-wide concept, it is implemented at the individual and managerial level (Korhonen-Sande, 2010); therefore, understanding how individual managers perceive and use information is relevant for the entire firm.

Marketing decision makers, especially, are likely to be confronted with complex information processing. Marketing managers are overwhelmed as ever-increasing amounts of data are generated, stored and collected every day (Rollins *et al.*, 2012). They are charged with understanding customer needs and are responsible for disseminating customer information to other departments, such as R&D or manufacturing (Drechsler *et al.*, 2013). It is often suggested that marketing information is the most complex type of information within a firm (Davenport *et al.*, 2001). Marketing information originates from various sources from within and outside the organization, such as databases, the internet, customer complaint management systems, market research or information gathered by salespeople. Marketing managers are charged with obtaining critical information about customers, competitors and market developments, interpreting the information and disseminating it within their organizations.

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Partly because of the abundance of information, managers frequently fail to use the market information available to them, resulting in lower firm performance (Kohli and Jaworski, 1990). As March and Shapira (1982) put it, managers often "gather more information and don't use it, ask for more and ignore it, make decisions first and look for the relevant information afterwards". Although market information is a critical resource for marketing managers, companies tend to put more emphasis on generating marketing knowledge then on using it effectively. Researchers propose that the use of market information leaves much to be desired (Rollins *et al.*, 2012). The American Marketing Association's recent Chief Marketing Officer survey, which surveyed 289 US-based marketing leaders, finds that "marketers report a slight reduction in their companies' development and use of customer insights, compared to data from 2011 to the present" (Moorman, 2016). A recent report by McKinsey and Company (2016) also concludes that "organizations have more data than ever at their disposal. But actually deriving meaningful insights from that data – and converting knowledge into action – is easier said than done". An extensive survey of more than 10,000 practitioners in 60 countries concludes that "What increasingly separes the winners from the losers is the ability to transform data into insights about consumers' motivations and to turn those insights into strategy" (van den Driest *et al.*, 2016).

A critical source of market information is the firm's salesforce, whose daily interactions with customers make them a cheap, fast and effective source of market information. As Gordon *et al.* (1997, p. 33) state:

> [. . .] salespeople spend a significant amount of time with customers and, therefore, are in a unique position to serve as a primary source of information regarding marketplace problems and customer requirements.

However, studies of the sales–marketing interface show that the relationship between sales and marketing is rarely harmonious (Arnett and Wittmann, 2014; Beverland *et al.*, 2006; Troilo *et al.*, 2009). Kotler *et al.* (2006, p. 3.) conclude that sales and marketing "feud like Capulets and Montagues – with disastrous results". Although the information collected by salespeople provide critical input to marketing managers' understanding of customer needs, marketing's access to and use of market information provided by sales is often suboptimal.

Despite academic attention to the managerial use of market information, marketing's key role in understanding customer needs, and the salesforce's importance as an effective source of market information, the literature remains largely silent on how the sales–marketing interface impacts marketing managers' use of information from sales. Thus, both marketing scholars and practitioners stand to benefit from more insight in this area (Korhonen-Sande and Sande, 2014; Rollins *et al.*, 2012). To the best of our knowledge, this article presents the first study that models and empirically investigates marketing managers' use of information collected by sales. The current study conceptually links and advances extant knowledge on the literatures on the sales–marketing interface and utilization of market information at the individual level (Korhonen-Sande and Sande, 2014; Korhonen-Sande, 2010; Rollins *et al.*, 2012; Maltz and Kohli, 1996; Maltz *et al.*, 2001; Fisher *et al.*, 1997).

This article addresses the following research questions:

RQ1. How does cross-functional trust between sales and marketing influence marketing managers' use of market information provided by their sales counterparts?

RQ2. Is this effect contingent on marketing's power within the firm?

The findings from this study offers three key contributions to the extant literature.

First, the dominant view within marketing is that trust positively influences firm-wide information processing (Holste and Fields, 2010, Rutten *et al.*, 2016, Lin *et al.*, 2009). However, a growing body of studies questions its direct benefits to information use. For example, Moorman *et al.* (1992) suggest that trust has no direct effect on marketing managers' information utilization, only through critical mediators. This study contributes to a more nuanced understanding of how trust can strengthen an organization's responsiveness to market-related information by taking into account two critical mediators: the sales–marketing integration and the perceived quality of the shared information. Sales–marketing integration – as suggested by the literature of sales–marketing interface – is the key measure to capture structural alignment across the two functions (Guenzi and Troilo, 2006; Rouziès and Hulland, 2014; Rouziès *et al.*, 2005; Biemans *et al.*, 2010), while – as confirmed by the literature on managerial information utilization – perceived information quality is a central driver of whether managers will actually rely on information available to them (Deshpandé and Zaltman, 1982; Maltz and Kohli, 1996; Maltz *et al.*, 2001; Menon and Varadarajan, 1992).

Second, the effect of cross-functional trust on information use can be better understood by accounting for the power of marketing within the firm. The current study investigates the moderating impact of marketing's power on the relationship between cross-functional trust and managers' use of information. Recent studies confirm that sales encroache on fields traditionally belonging to marketing's domain (Ingram *et al.*, 2002; LaForge *et al.*, 2009; Keszey and Biemans, 2016), whereas marketing's power tends to decline within the firm (Verhoef and Leeflang, 2009). Although power substantially shapes individuals' behavior in organizations (Pfeffer, 1981; Mintzberg, 1983), there is limited insight into how marketing managers' information use behavior is affected by marketing's power within the firm. For exception, a study by Maltz and Kohli (1996) shows functional power differences to have strong direct effects on both cross-functional trust and information sharing patterns; however, to our knowledge, no empirical studies have measured the effects of trust on information use under different contingencies of marketing's power.

Third, the literature on the sales–marketing interface suggests that sales–marketing integration enhances any organization's responsiveness to market dynamics, and describes integration as one of the components of market-driven organizations (Lyus *et al.*, 2011; Rouziès *et al.*, 2005). Nevertheless, a recent meta-analysis by Troy *et al.* (2008) revealed the potential pitfalls of cross-functional integration by showing that integration does not always lead to enhanced firm outcomes in terms of new product development success. For example, integration can also generate dysfunctional conflicts and culminate in time-consuming bureaucratic processes. This study provides a more

fine-grained view of the role of sales–marketing integration and provides further insights into the environmental contingencies that moderate integration's role in the process of organizational responsiveness to market dynamics.

The following section presents the conceptual background and theoretical framework, including the research hypotheses that link sales–marketing trust to marketing managers' use of sales information. Next, the study's research method and key findings are presented. The article concludes with a discussion of the study's theoretical contributions, managerial implications, limitations and suggestions for future research.

Theoretical background and hypotheses development

Theoretical background and research gap

Research about information utilization originated in the field of public policy in the late 1960s. Researchers investigated how the results of Gallup polls and social science research are used in public policy (Weiss and Bucuvalas, 1977; Anderson *et al.*, 1981). Deshpandé and Zaltman (1983) introduced the research stream in marketing by summarizing the key findings from prior research in public policy and suggesting similar research in marketing to uncover how managers rely on commissioned market research. During the past three decades, information utilization has evolved into a well-defined body of research in the marketing domain. Much of the early literature looks at how marketing managers use the results from commissioned market research studies conducted by market research professionals (Drechsler *et al.*, 2013; Deshpandé and Zaltman, 1982; Deshpandé and Zaltman, 1984; Moorman *et al.*, 2001; Lee *et al.*, 1997; Moorman *et al.*, 1992; Hu, 1986; Deshpandé, 1982; Deshpandé and Zaltman, 1983; Deshpandé and Zaltman, 1987; Lee *et al.*, 1987).

Similarly, researchers investigated how managers in other departments use market information (Figure 1). Several studies focus on how managers use export market information (Souchon and Diamantopoulos, 1996; Diamantopoulos and Souchon, 1998, 1999). Other studies reveal how other departments in the firm (such as R&D, engineering and manufacturing) use market information from marketing (Griffin and Hauser, 1996; Fisher *et al.*, 1997) or from both sales and marketing (Korhonen-Sande, 2010; Korhonen-Sande and Sande, 2014).

In contrast, the use of internally available information by marketing managers is much less understood. Although research on market orientation acknowledges the importance of disseminating and responding to collected market information, the question of what determines marketing managers' use of information that already exists within the firm, and is shared through cross-functional relationships, has not received much attention and focuses on readily available information from departments like accounting (Homburg and Karlhaus, 1998; Low and Mohr, 2001).

Salespeople have direct contact with customers and are an important source of rich customer information – such as customer needs, complaints, experiences with the firm's products and services and competitor activities – which is critical to marketing decision-making (Gordon *et al.*, 1997). The literature on the sales–marketing interface has grown into a solid body of research over the past decade (Beverland *et al.*, 2006; Dewsnap and Jobber, 2000; Kotler *et al.*, 2006; Rouziès *et al.*, 2005). This literature stream shows that the sales–marketing interface is uniquely different from other functional interfaces within the firm. Whereas marketing differs significantly from manufacturing and R&D or finance, frequently resulting in communication problems and conflicts, marketing and sales should be well equipped for effective

Figure 1 Empirical research on utilization of market information

	Marketing managers' use of market information	Non-marketing managers' use of market information
Market information from external sources	**Use of market research information** Deshpandé (1982), Deshpandé and Zaltman (1982, 1983, 1984, 1987), Moorman, et al. (1992), Hu (1986), Lee et al. (1987), Lee et al. (1997)	**Export market information (e.g. export marketing research, export assistance, export market intelligence) use** Diamantopoulos and Souchon (1996, 1998), Souchon and Diamantopoulos (1996)
Market information from internal sources: Information from sales	**RESEARCH GAP**	**Use of information from sales by departments such as manufacturing and R&D** Korhonen-Sande (2010), Korhonen-Sande and Sande (2014, 2016)
Market information from internal sources: Information from other departments	**Use of accounting information / general in-house information** Homburg and Karlhaus (1998), Low and Mohr (2001)	**Use of information from marketing by departments such as R&D, engineering and manufacturing** Fisher and Maltz (1997), Maltz and Kohli (1996), Gupta and Wilemon (1988), Griffin and Hauser (1996)

cooperation. They are both boundary spanners, linking the firm with its customers (McAllister, 1995), and serve customers in complementary roles, with marketing supporting sales and building a consistent brand image, and sales performing tactical tasks such as contacting customers, executing marketing strategies and closing the sale in the field (Rouziès *et al.*, 2005).

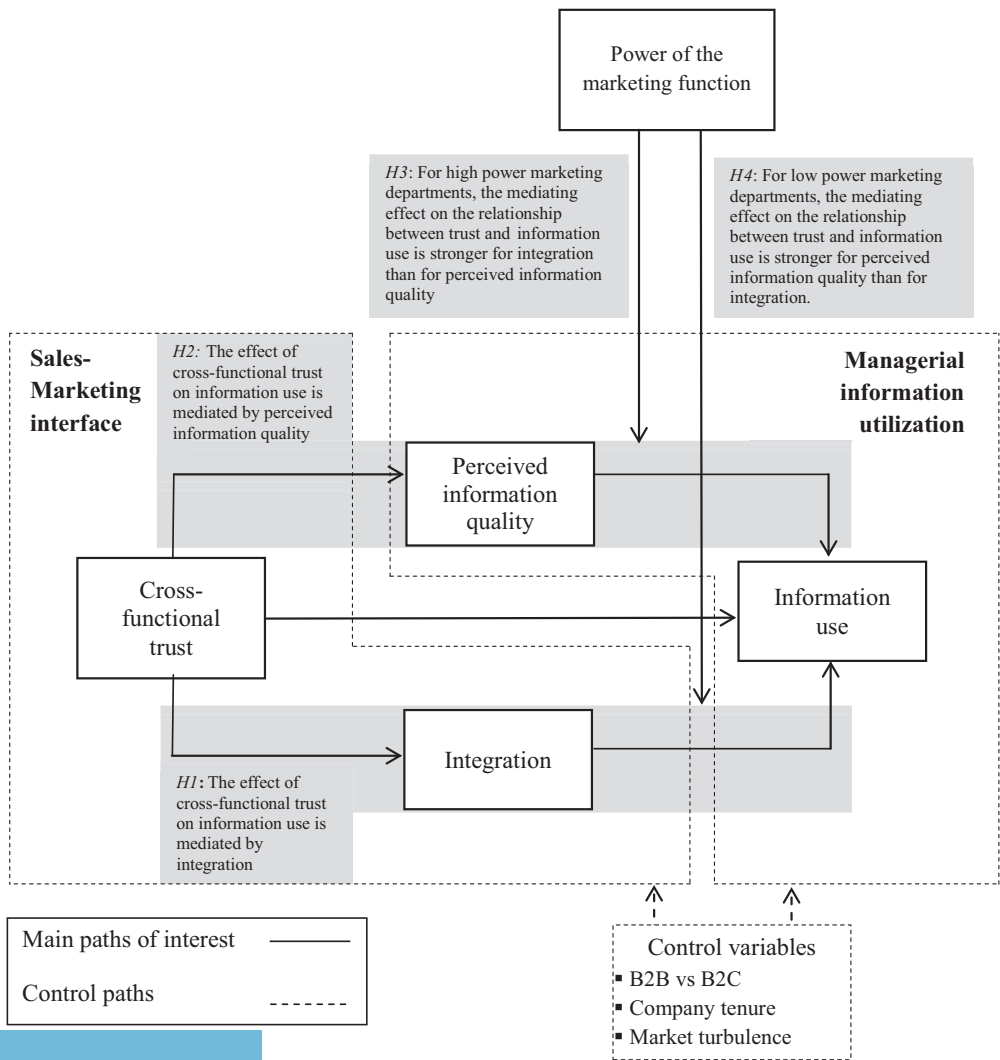
Conceptual framework

The model used in this study (Figure 2) conceptually links two streams of literature, the sales–marketing interface and managerial information utilization. The dependent variable of the conceptual framework is market information use. This study focuses on market information from sales, which is defined as information about customer needs and competitor activities and obtained through their observations and market feedback, disseminated by salespeople toward marketing. Market information use is the degree to which market information is taken into account in managerial problem solving by marketing managers (Diamantopoulos and Souchon, 1999; Moorman *et al.*, 1992; Anderson *et al.*, 1981).

Some authors distinguish between the instrumental and conceptual use of market information. Instrumental use of market information refers to the direct use of information for solving a well-defined problem (Caplan *et al.*, 1975). Conceptual use of market information refers to using information in understanding a problem, initiating "joint thinking" within the firm (Beyer and Trice, 1982). However, Maltz and Kohli (1996) suggest that these two modes of information use cannot easily be separated, which is confirmed by later empirical studies showing that these are theoretically overlapping constructs (Diamantopoulos and Souchon, 1999; Korhonen-Sande and Sande, 2014). Consequently, in the current study, market information utilization is treated as a one-dimensional concept.

The other key construct in the conceptual framework stemming from this literature stream is perceived information quality. Perceived information quality is defined as the extent to which the receiver perceives the information to be accurate, timely, relevant and clear (Maltz and Kohli, 1996). Several empirical studies confirm that the extent to which marketing managers perceive information to be of high quality is a key factor

Figure 2 Model



in determining the extent to which the information is actually used (Deshpandé and Zaltman, 1982; Maltz and Kohli, 1996; Maltz *et al.*, 2001; Menon and Varadarajan, 1992).

As the use of information depends on the receiver's perception of the sender (Moorman *et al.*, 2001; Holste and Fields, 2010), any explanation of marketing's use of market information collected by sales needs to include the relationship between these two business functions. Literature on the sales–marketing interface reveals that despite their similar backgrounds and complementary roles, there is overwhelming evidence that the relationship between sales and marketing is rarely harmonious and constructive (Kotler *et al.*, 2006; Beverland *et al.*, 2006; Dewsnap and Jobber, 2000; Biemans *et al.*, 2010).

The conceptual framework captures this relational mismatch by focusing on cross-functional trust. A key concept in cross-functional interfaces is trust, which creates a collaborative environment by providing people with feelings of security and attachment (Dirks and Ferrin, 2001). Trust is an essential element in positive human relationships that creates a collaborative environment by providing people with feelings of security and attachment (Dirks and Ferrin, 2001). Trust is a broad concept, and many definitions can be found in the literature. For instance, McEvily and Tortoriello (2011) found no less than 129 different definitions in over 48 years of research. This research focuses on cross-functional trust only, being the trust that exists between people (sales and marketing co-workers in this case) who belong to different functional units. Hence, cross-functional trust is defined as the trustor's confidence that the trustee has the ability (i.e. is competent) and motivation (i.e. is trustworthy) to collaborate (Maltz and Kohli, 1996; Morgan and Hunt, 1994). This excludes other dimensions of trust from the scope of this research scrutinized in the literature, such as inter-organizational trust (trust between organizations) and trust between customers and organizations.

Conflicts between sales and marketing are often related to structural mismatch (e.g. insufficient integration, lack of coordination, formalization) (Rouziès *et al.*, 2005; Lyus *et al.*, 2011). A key concept in the sales–marketing literature to characterize the structural aspect of this interface is cross-functional integration (Guenzi and Troilo, 2006; Rouziès and Hulland, 2014; Rouziès *et al.*, 2005; Biemans *et al.*, 2010). Although a number of former studies capture integration, the literature fails to provide a widely accepted, universal measure. This study defines the concept as "the extent to which activities carried out by the two functions [. . .] are supportive of each other" (Rouziès *et al.*, 2005).

Mediating effects of perceived information quality and integration

Studies of the managerial utilization of market information show that trust between sender and receiver is a key driver of a firm's information processing (Holste and Fields, 2010; Rutten *et al.*, 2016; Lin *et al.*, 2009; Moorman *et al.*, 1992; Maltz and Kohli, 1996). While the majority of these studies focus on trust's effect on information exchange, less is known about trust's effect on how managers actually make use of this information (Maltz and Kohli, 1996; Moorman *et al.*, 1992). However, the limited studies in this area show that trust has no direct effect on information use and only has "critical indirect effects" (Moorman *et al.*, 1992); in the absence of a mediating mechanism, trust's effect on managers' use of valuable information will be limited. Former studies confirm that in the context of marketing managers' use of commissioned market research studies, the perceived quality of interactions, the researcher's involvement in research activities and his or her commitment to relationship serve as mediators between trust and information use (Moorman *et al.*, 1992). Based on this indirect relationship between trust and information use, the conceptual model includes two mediators, sales–marketing integration and perceived information quality, that are highly relevant in the context of information processing across the sales–marketing interface.

When two functions are integrated, goals are superordinate to the objectives of units within a firm (Rouziès *et al.*, 2005). Cross-functional integration thus serves to align the interests of organizational units with those of other units (Fisher *et al.*, 1997). The lack of cross-functional trust, which often exists within the sales–marketing interface (Beverland *et al.*, 2006; Kotler *et al.*, 2006), is a major impediment to the effective co-ordination of activities across the two business functions (Rouziès *et al.*, 2005). In the absence of cross-functional trust, sales and marketing may follow their own agendas and objectives, resulting in less cross-functional integration. A higher level of integration improves marketing's use of sales information and increases its responsiveness to market dynamics (Lyus *et al.*, 2011). An empirical study by Troilo *et al.* (2009) shows that sales–marketing integration improves sales managers' motivation to collaborate with marketing on mutual goals and to disseminate usable market feedback.

Sales–marketing integration facilitates communication and information sharing between the two functions (Le Meunier-FitzHugh and Piercy, 2007), which contributes to better insight into each other's objectives, tasks and priorities, and an improved understanding of how colleagues from the other business function perceive the business environment (Malshe, 2011). Inter-functional integration enhances sales' understanding of the specific challenges and market information needs of marketers, and allows salespeople to provide marketers with specific market information, and to help marketers interpret information collected at the level of individual customers. Thus, cross-functional trust is expected to impact information use by contributing to sales–marketing integration:

H1. The effect of cross-functional trust on information use is mediated by sales–marketing integration.

In the sales–marketing interface, information asymmetry exists between the two functions (Lin *et al.*, 2005). Salespeople interact with individual customers on a daily basis, but marketing managers only have an aggregated perspective on entire markets (Beverland *et al.*, 2006). This information asymmetry between salespeople and marketing managers limits the marketing managers' objective assessment of the accuracy and comprehensibility of information about individual customers provided by the salesforce. Information asymmetry exposes marketing managers to the risk of relying on sources providing incomplete information or having questionable track records (Holste and Fields, 2010).

The literature emphasizes that the trustor's confidence is based on the belief that the trustee is reliable, which is associated with

being benevolent, honest and fair (Morgan and Hunt, 1994; Moorman *et al.*, 1992). In the context of information exchange, trust in the provider of information reduces the receiver's concerns about receiving manipulated, poor and unreliable information due to hidden, harmful motivations (Maltz and Kohli, 1996; Fisher *et al.*, 1997). When cross-functional trust between sales and marketing is high, cross-functional trust contributes to the marketing managers' perception of the quality of information provided by sales, and they need to spend less time and effort on quality checks. Thus, cross-functional trust is expected to improve information use by enhancing the perceived quality of information:

H2. The effect of cross-functional trust on information use is mediated by perceived information quality.

Moderated mediating effect of marketing department's power

The effect of cross-functional trust on the use of sales information by marketing managers can be better understood when marketing's power within the firm is taken into account. The extant literature emphasizes the changing nature of sales and its increasing strategic role, resulting in sales moving in on marketing's domain (Ingram *et al.*, 2002; LaForge *et al.*, 2009; Keszey and Biemans, 2016). These changes in the roles of sales change the sales–marketing dynamic and the marketing department's power within the firm. Recent studies point out the declining influence of marketing within the firm (Verhoef and Leeflang, 2009; Homburg *et al.*, 2015).

Drawing on prior conceptualizations of power (Lamberti and Noci, 2009; Nath and Mahajan, 2011; Feng *et al.*, 2015; Pfeffer, 1981; Mintzberg, 1983), the power of a functional unit (e.g. marketing) is defined as its ability to influence corporate behavior. Functional units with higher power have greater authority, capacity to exert their will and higher control over the actions and decisions of other people and departments in the firm (Feng *et al.*, 2015). Organizational theorists posit that a department's position in the organizational structure and hierarchical authority is regarded as one of the primary drivers of power within the firm (Pfeffer, 1981; Welbourne and Trevor, 2000). Therefore, to operationalize and assess the power of a department, the literature generally associates it with the representation of the department on the strategic boards (i.e. firm's top management team, corporate executive suite or Board of Directors) (Lamberti and Noci, 2009; Nath and Mahajan, 2011; Piercy, 1986). These strategic boards formulate the firm's corporate strategy through a series of strategic decisions; thus, functional units that are represented on strategic boards are more likely to have influence on the strategic decisions that executives in these boards make (Nath and Mahajan, 2011).

The former hypotheses (*H1* and *H2*) suggest that trust has a dual effect on information use, through sales–marketing integration and marketing managers' more favorable perception of information from sales. However, these mediating routes may involve potential trade-offs. Building cross-functional integration is both time-consuming and costly for sales and marketing personnel. Hence, marketing faces trade-offs between devoting effort to establishing cross-functional collaboration with sales and expending effort on gaining information from the marketplace that is perceived to be of high quality.

We propose that power may moderate this trade-off. In other words, the mediating effect of integration and perceived information quality might vary depending on power. Further, the mediating effect of one variable may be strengthened, while the other variable is weakened when the power of marketing is high or low.

Organizational theory suggests that the power of a functional unit can shape behavior in organizations through two key mechanisms, inter-functional coordination and resource attraction (Welbourne and Trevor, 2000; Salancik and Pfeffer, 1974). Inter-functional coordination is closely related to integration because integration encompasses collaboration of two units for joint goals (Rouziès *et al.*, 2005) that require coordination of the involved departments.

Influential departments are able to co-ordinate their collaborations with other departments in a more efficient manner, as their influence empower them to establish more effective conflict resolution mechanisms (Salancik and Pfeffer, 1974). This is a highly relevant issue in the context of sales–marketing interface, as a number of studies have suggested that the conflict between sales and marketing is endemic (Kotler *et al.*, 2006). For example, in many firms, sales personnel frequently complain that support tools provided by marketing are inadequate, whereas marketing often accuses sales of poorly implementing marketing initiatives. Sales and marketing often follow their own agendas, hampering effective collaboration and integration (Malshe, 2010). However, power shapes this integration because collaboration with more powerful departments are straightforward and more welcomed by other functional units (Homburg *et al.*, 1999).

As marketing departments are charged with gathering, disseminating and responding to customer needs, market information is a crucial resource for marketing to effectively accomplish its tasks. As suggested by the power literature in organizational theory (Salancik and Pfeffer, 1974), more powerful departments receive more and higher quality resources, enabling them to better perform (Menz and Scheef, 2014). Less powerful marketing units are more likely to have access to more limited resources. Market feedback from salespeople – unlike other sources of market information, such as market research and complaint management systems – is a cheap source of information on customers and competitors. Market information from sales is available when marketing – due to their lower level of power – has only limited resources. This suggests that market information from sales will be more valued by marketing when it has limited resources to obtain information from other reliable sources.

Taken together, the previous arguments suggest that marketing's high level of power create favorable conditions for the inter-functional co-ordination required to accomplish their functional tasks of providing information from and to other functional units. A more powerful marketing unit will be better positioned to obtain cooperation from sales and to clearly specify its needs for information from sales. For example, in a powerful marketing department, marketing managers will be more prone to co-ordinate their activities and involve sales in market scanning. Therefore, departmental power enhances the mediating effect of integration on integration use. On the other hand, when marketing's power is low, marketing has limited resources to use information from a variety of sources and will

greatly value information that is available at low costs, such as market information from sales:

H3. For high power marketing departments, the mediating effect on the relationship between trust and information use is stronger for integration than for perceived information quality.

H4. For low power marketing departments, the mediating effect on the relationship between trust and information use is stronger for perceived information quality than for integration.

Control variables

The conceptual framework includes three control variables: the business context, company tenure and market turbulence.

Previous research concludes that the business context – business-to-business versus business-to-customer (hereafter B2B vs B2C) – influences the roles and configurations of sales and marketing (Biemans *et al.*, 2010; Verhoef and Leeflang, 2009). Furthermore, previous studies of marketing managers' use of market research reports show that patterns of information use in companies operating in B2B and B2C contexts differ slightly (Deshpandé and Zaltman, 1987; Rollins *et al.*, 2012). Therefore, the business context is added as a control variable for integration and information use.

The marketing managers' company tenure – measured by the number of years spent at the firm – is included as a control variable for perceived information quality and information use. Previous studies confirm that work-related expertise accrued during the years managers spent at a firm impacts marketing managers' perception of information usefulness and also has an effect on how managers make decisions and use different types of market information (e.g. Nielsen data, colleagues' opinions, consumer research, etc.) (Lee *et al.*, 1987). Therefore, company tenure is added as a control variable for perceived information quality and information use.

Another key control variable is market turbulence, which is conceptualized as changes in the composition of customers and their preferences (Kohli and Jaworski, 1990). Market turbulence results in shorter product lifecycles, increased development costs and more intensive competition, which forces firms to use information available to them in a more efficient manner. Although firms need market information to meet business environmental challenges, in turbulent times, marketing budgets and tasks are often the first to be reduced and allocated to other departments (Drechsler *et al.*, 2013), such as sales. Therefore, market turbulence is expected to influence the integration between sales and marketing and also the use of market information collected by sales.

Research method

Research context and data collection

The data for this study were collected through a mail survey that was sent to all companies in Hungary, belonging to the top 10 per cent in terms of sales revenue, as reported in the quarterly business information database of the Hungarian Central Statistical Office (www.ksh.hu). For all 1,057 companies satisfying this criterion, we obtained contact information about key informants: either marketing executives or – when the firm has no marketing executive – decision makers in charge of marketing-related decisions. First, the questionnaire was sent to all 1,057 firms in the sampling frame. Next, 14 days after mailing, the non-responding companies were contacted by phone to check whether the mail had been received by the manager in charge of marketing and the reason for non-response. Based on these responses, the database was updated and expanded and used to send additional questionnaires by mail to new respondents. Potential respondents were ensured of data confidentiality, and a summary of the research findings was offered as an incentive for co-operation.

This data collection procedure resulted in 338 questionnaires (31.9 per cent response rate), filled out by respondents that are mostly one level below top management and have an average of 9.3 years of company-specific experience. Table I presents the sample profile.

The firm characteristics indicate that the sample is relatively representative for the basic population in terms of the number of employees. But the distribution per industry of operation is somewhat skewed; agriculture, telecommunication and broadcasting, financial services and transportation are slightly overrepresented in our sample, whereas the processing industry is underrepresented. In addition, the proportion of "other industries" is relatively high, but respondent anonymity did not allow for later classification of these companies. To provide further insight into the sample profile, we provide additional information in Table II on how marketing function is configured in the overall sample and in firms with high and low power of marketing.

Analysis of variance did not indicate significant differences between the means of the key constructs or the descriptive statistics (products/services provided, number of employees, ownership structure) of early and late respondents (Armstrong and Overton, 1977). The most frequent reason for refusal to cooperate – as discovered during the follow-up phone calls – was a lack of time. Therefore, it was concluded that non-response errors would not cause systematic sample errors, and the data were pooled for subsequent analyses.

Measures

The survey included measures for the eight key constructs: use of market information, perceived information quality, cross-functional trust, sales–marketing integration, B2B vs B2C, company tenure, market turbulence and the power of marketing. These constructs are mostly taken from or adapted from previous studies (Appendix). Multi-item constructs are measured with five-point Likert-type scales and consisted of at least three items.

The questionnaire was tested using a multi-stage process. First, two academics, with several decades of experience in academic research, performed a semantic review of the questionnaire, earmarking statements that may cause confusion, include Anglicism or can be expected to tax respondents' patience. Second, a convenience sample of MBA students completed the questionnaire. They were asked to mark all statements that they found confusing, incoherent or hard to respond to.

As all variables are collected at the same time, with the same instrument from the same respondents, the results were

Table I Profile of respondent firms (n = 338) and sampling frame (n = 1,057) in parentheses where available

Company characteristic	(%)
Number of employees	
−5,000	2.4 (1.8)
4,999-1,000	16.6 (14.2)
999-500	15.8 (17.9)
499-300	21.3 (19.4)
299-100	25.7 (26.2)
99-20	15.0 (16.3)
20-0	3.2 (4.2)
Industry of operation	
Agriculture	6.0 (2.0)
Building industry	9.2 (6.5)
Transportation	5.2 (4.4)
Wholesale commerce	14.4 (22.0)
Financial services	6.4 (4.3)
Mining	0.4 (0.3)
Processing industry	16.4 (36.5)
Telecommunication and broadcasting	4.8 (2.6)
Retail and commerce	6.8 (11.1)
Other services	3.2 (9.6)
Other	27.2 (0.9)
Business categories	
Durable consumer goods	14.4
Fast moving consumer goods	18.4
Materials and components	13.2
Industrial capital equipment	4.0
Industrial services	5.2
Consumer services	16.0
Other	28.8
Major field of operation	
business-to-business	45.2
business-to-customer	54.8
Ownership	
Private national	44.6
Private inter- and multinational	46.4
State-owned	9.0
Power of marketing	
High	41.7
Low	58.3

controlled and tested for common method bias (CMB) (Podsakoff *et al.*, 2003). To control for CMB, predictor and criterion variables were allocated in separate sections of the questionnaire, and verbal labels were used for all scale points. The existence of CMB was statistically assessed using three different techniques:

1 Harman's single-factor method (Harman, 1976);
2 assessment of the correlation matrix (Bagozzi *et al.*, 1991); and
3 Lindell and Whitney's (Lindell and Whitney, 2001) method for assessing CMB.

Following Harman's (1976) single factor approach, the results show that no single factor emerged from a factor analysis of all survey items and that no general constructs account for the majority of the covariance among all constructs (Podsakoff and Organ, 1986). The correlation matrix of the variables included in the conceptual model does not include highly correlated variables ($r > 0.90$) (Bagozzi *et al.*, 1991), suggesting that the data can be pooled using the partial correlation technique (Lindell and Whitney, 2001) with a marker ("Our mailing system is user-friendly", measured on a seven-point Likert-scale) that is theoretically expected to be unrelated to the key constructs of the model. Bivariate correlations among the marker and the other variables, as well as a series of partial correlations, do not indicate significant CMB problems. Given these results, it can be concluded that CMB did not significantly affect the findings from this study.

Analyses and results

Assessment of measures

The validity and properties of the multi-item scales were assessed through a confirmatory factor analysis (CFA) with SPSS 20.0 and AMOS 20.0 for the five reflective constructs of cross-functional trust, integration, perceived information quality, managerial use of market information and market turbulence. The CFA results indicate a good fit, compared to accepted cut-off values: Chi-square/df (χ^2/df) is below 2.5, comparative fit index (CFI) is above 0.90, standardized root mean square residual (SRMR) is below 0.08, root mean square error of approximation (RMSEA) is below 0.08, and p of close fit (PCLOSE) is above 0.05 (Byrne, 2010). As showed in Appendix, all standardized factor loadings are statistically significant ($p < 0.05$) and, being above 0.60, within an acceptable range (Anderson and Gerbing, 1988). The fit indices for the measurement model are: $\chi^2(107) = 226.93$; $\chi^2/df = 2.12$; $p < 0.001$, CFI = 0.96; SRMR = 0.06; RMSEA = 0.05 and PCLOSE = 0.11.

Table II Configuration of marketing of respondent firms (n = 338), firms with high (n = 141) and low power (n = 197) of marketing

Configuration of marketing within the firm	Entire sample (n = 338)	High power of marketing (n = 141) (%)	Low power of marketing (n = 197)
Sales is part of the marketing unit	23.3	36.9	13.7
There is a unit or a dedicated position for market research within the firm	24.2	34.1	17.2
There are brand or marketing managers within the firm	38.5	58.9	23.9

Table III presents the findings from the measurement validation tests of seven constructs: use of market information, perceived information quality, cross-functional trust, sales–marketing integration, B2B vs B2C, company tenure and market turbulence.

Power of marketing was measured by a nominal dichotomous scale: whether the marketing function is represented in the firm's Board of Directors. Composite reliability measures range from 0.75 to 0.85, which is above the 0.70 threshold (Nunnally, 1967), indicating acceptable reliability of the constructs. The average variance extracted values range from 0.51 to 0.67, which are above the conventional benchmark of 0.50 (Bagozzi and Yi, 1988). The outcomes from these tests support the convergent validity of the constructs used. Furthermore, the square of the intercorrelation between two constructs is less than the AVE estimates of the two constructs for all pairs of constructs, which supports discriminant validity (Fornell and Larker, 1981).

Hypotheses testing

Prior to testing the mediating effects of PIQ and integration (*H1* and *H2*) and the hypotheses of moderated mediation (*H3* and *H4*), the parameters for the direct effects depicted in Figure 2 were calculated using structural equation modeling (SEM), AMOS 20.0. The fit indices suggest that the model fits the data very well ($\chi^2(405) = 719.04$; $\chi^2/df = 1.77$; $p < 0.001$; RMSEA = 0.034; SRMR = 0.06; NNFI = 0.92; CFI = 0.94). These results, summarized in Table IV, provide preliminary insights into the role of perceived information quality and integration as mediators between trust and information use. For the overall sample, the data show that trust has no significant direct effect on information use (b = 0.13, n.s), but it does have significant effects on integration (b = 0.44, $p < 0.001$) and perceived information quality (b = 0.58, $p < 0.001$). Integration and perceived information quality are also positively related to information use (b = 0.14, $p < 0.05$; b = 0.34, $p < 0.001$).

Table III Properties of measurement scales

Constructs	ME	SD	CR	CA	AVE	1	2	3	4	5	6	7	8
Use of market information	3.30	1.10	0.85	0.82	0.67	0.82							
Perceived information quality	3.60	0.90	0.80	0.80	0.51	0.46**	0.71						
Cross-functional trust	3.85	0.84	0.86	0.85	0.62	0.37**	0.57**	0.79					
Sales-Marketing integration	3.68	1.15	0.85	0.85	0.67	0.31**	0.35**	0.42**	0.82				
B2B vs B2C	6.91	3.16	n.a.	n.a.	n.a.	−0.77	−0.05	−0.06	0.38	n.a.			
Company tenure	9.35	3.96	n.a.	n.a.	n.a.	−0.02	0.06	0.03	−0.06	0.06	n.a.		
Market turbulence	2.97	0.74	0.75	0.73	0.51	0.17	0.11	0.00	0.06	−0.11*	0.00	0.71	

Notes: ME = Mean; SD = Standard Deviation; CR = Composite Reliability; CA = Cronbach's Alpha; AVE = Average Variance Extracted; n.a. = not applicable; Value on the diagonal is the square root of AVE; ** $p < 0.01$; * $p < 0.05$

Table IV Empirical results: parameter estimates (standardized parameter estimates) and variance explained (R^2)

Effects and variance explained	Entire sample (*n* = 338)	Sub samples: High power of marketing (*n* = 141)	Sub samples: Low power of marketing (*n* = 197)
Direct effects			
Trust → USE	0.13	0.09	0.13
Trust → Integration	0.44***	0.26**	0.50***
Trust → PIQ	0.58***	0.45***	0.62***
Integration → USE	0.14*	0.30**	0.03
PIQ → USE	0.34***	0.14*	0.44***
Control paths			
B2B vs B2C → Integration	0.05	−0.10	0.15*
B2B vs B2C → USE (38)	−0.05	−0.01	−0.07
Company tenure → PIQ (33.2)	0.06	−0.05	0.08
Company tenure → USE	−0.03	−0.02	0.10
Market turbulence → Integration	0.07	0.02	0.08
Market turbulence → USE	0.13*	−0.02	0.17*
Variance explained (R^2)			
Integration	0.20	0.08	0.27
PIQ	0.34	0.20	0.39
USE	0.25	0.17	0.33

Notes: Model fit: $\chi^2(405) = 719.04$; $\chi^2/df = 1.77$; $p < 0.001$; RMSEA = 0.034; SRMR = 0.06; NNFI = 0.92; CFI = 0.94; *** $p < 0.001$; ** $p < 0.01$; * $p < 0.05$

Mediation analysis

The standardized total, direct and aggregated indirect effects of integration and perceived information quality were tested using bootstrapping (based on 1,000 bootstrap resamples) (Preacher and Hayes, 2008). The parameters were tested using SEM, covariance-based path analysis with maximum likelihood estimation. Both integration and perceived information quality were simultaneously included in a multiple mediator model instead of estimating two separate single models. This approach reduces the likelihood of parameter bias due to omitted variables (Preacher and Hayes, 2008). Significance levels were based on bias corrected (BC) bootstrap confidence intervals (CIs).

Table V presents the standardized total, direct, aggregate indirect and specific indirect effects of trust on information use via integration and perceived information quality for the overall sample. The test of mediation between trust and information use shows full mediation (Preacher and Hayes, 2008). The total effect of trust on information use is significant (b = 0.37, $p < 0.01$); however, the direct effect is insignificant (b = 0.13, n.s.), which means that trust's effect on information use is only realized through the two mediators, integration and perceived information quality (b = 0.24, $p < 0.01$).

To test for *H1* and *H2*, we needed to decompose the aggregate mediator effects (i.e. joint effect of PIQ and integration) to specific indirect effects through each of the two mediators. Because AMOS 20.0 only provides BC bootstrap CIs for the aggregate indirect effect (i.e. via both mediators) but not for the specific indirect effects through each mediator, we used Process macro of SPSS 20.0 to calculate the mediator effect of the specific indirect effects (Preacher and Hayes, 2008). The results of this analysis show that the relationship between trust and information use is mediated by cross-functional integration (b = 0.05/$p < 0.05$) and by perceived information quality (b = 0.19/$p < 0.01$), providing support for *H1* and *H2*.

Table V also reports the relative magnitude of the direct and indirect effects with respect to the total effect and the relative magnitude of the specific indirect effects with respect to the aggregate indirect effect (Iacobucci *et al.*, 2007). The results for the overall sample show that the aggregate indirect effect accounts for 64.8 per cent of the total effect, whereas integration accounts for 20.8 per cent and perceived information quality for 79.1 per cent of the aggregate indirect effect.

Moderated mediation analysis

Both, for the overall sample and the two subgroups (firms with high and low power of the marketing unit), we calculated the parameters of the direct effects for the two subgroups using SEM (Table IV). *H3-H4* were tested by splitting the overall sample into two subgroups, representing firms with high (n = 141 firms) or low power (n = 197 firms) of the marketing unit (Edwards and Lambert, 2007). Table V reveals the standardized total, direct, aggregate indirect and specific indirect effects through perceived information quality and integration for both subgroups.

The results support *H3*, suggesting that in firms with high-power marketing departments, integration has a stronger mediating effect than perceived information quality on the relationship between trust and information use. As shown in Table V, the results suggest full mediation of trust through perceived information quality and integration on information use (total effect = 0.20, $p < 0.05$; direct effect = 0.09, n.s.; aggregate indirect effect = 0.11, $p < 0.05$). The results indicate a positive significant indirect effect through integration (b = 0.08, $p < 0.05$), which accounts for 72.7 per cent of the aggregate indirect effect. No evidence is found of statistically significant mediation via perceived information quality (b = 0.03, n.s.). These results suggest a fully mediated relationship between trust and information use, with integration being the dominant path of mediation.

For firms with low-power marketing departments, trust has a significant total effect on information use (b = 0.42, $p < 0.01$), an insignificant direct effect (b = 0.13, n.s.) and a significant aggregate indirect effect (b = 0.29, $p < 0.001$), suggesting full mediation in this subgroup as well. The results shown in Table V support *H4*, suggesting that in firms with low-power marketing functions, perceived information quality has a stronger mediating effect than integration on the relationship between trust and integration use. As shown in Table V, mediation through perceived information quality is positive and statistically significant (b = 0.28, $p < 0.01$), while tests do not provide evidence for a statistically significant mediation through integration (b = 0.01, n.s.). Perceived information quality accounts for 96.6 per cent of the aggregate indirect effect of trust on information use in this subgroup of firms with low power marketing functions.

Table V Summary of standardized total, direct and indirect effects

Trust → Information use	Entire sample (n = 338) (%)		Firms with high power of marketing (n = 141) (%)		Firms with low power of marketing (n = 197) (%)	
Total effect	0.37** (0.25/0.50)	100[a]	0.20* (0.07/0.37)	100[a]	0.42** (0.26/0.59)	100[a]
Direct effect	0.13 (0.00/0.25)	35.1[a]	0.09 (−0.09/0.24)	45.0[a]	0.13 (−0.03/0.27)	30.9[a]
Aggregate indirect effect	0.24** (0.14/0.39)	64.8[a]	0.11* (0.02/0.29)	55.0[a]	0.29** (0.13/0.50)	69.1[a]
Indirect effect through integration[c]	0.05* (0.01/0.09)	20.8[b]	0.08* (0.01/0.20)	72.7[b]	0.01 (−0.03/0.10)	3.4[b]
Indirect effect through PIQ	0.19* (0.10/0.28)	79.1[b]	0.03 (−0.01/0.21)	27.3[b]	0.28** (0.12/0.48)	96.6[b]

Notes: **$p < 0.01$; *$p < 0.05$; Significance levels are based on 90% BC bootstrap CIs, two-tailed significance; [a]percentage of the total effect; [b]percentage of the aggregate indirect effect; [c]significance of the specific indirect effects is determined using "Process" macro (Preacher and Hayes, 2008)

Discussion and contributions

More than ever, sales and marketing play key roles in ensuring firms' responsiveness to customer needs (Hult, 2011). Despite the critical importance of market information provided by sales for marketing decision-making (Ahearne *et al.*, 2013; Gordon *et al.*, 1997; Homburg and Jensen, 2007), the extant theory is silent on how marketing managers perceive and use market feedback from their sales counterparts (Ahearne *et al.*, 2013). The primary goal of this study is to address this gap in the literature by merging two related, but separate research streams: managerial use of market information and the sales–marketing interface. More specifically, we aim to answer the following research questions:

RQ1. How does cross-functional trust between sales and marketing influence marketing managers' use of market information provided by their sales counterparts?

RQ2. Is this effect contingent on marketing's power within the firm?

The findings suggest that trust between sales and marketing has an indirect effect on marketing managers' use of information from sales. The study looks at two critical mediators between trust and information use, integration (as suggested by the extant literature about the sales–marketing interface) and marketing managers' perception of information quality (which emerged from the literature on utilization of market information at the individual level). According to the results, sales–marketing integration and marketing's perception of information quality fully mediate the link between trust and information use. Thus, the study provides empirical evidence on trust's dual indirect effect on information use, through two mediating routes of sales–marketing integration and marketing managers' more favorable perception of information from sales.

The findings suggest that this dual effect is contingent on marketing's power within the firm, thus offering new insights into the critical role of power. Cross-functional trust improves marketing managers' use of information from sales of firms with powerful marketing units by facilitating integration. Whereas in firms with low marketing power, trust enhances the use of information by improving marketing managers' perceived quality of information provided by sales. These findings have several implications for both theory and practice.

Theoretical implications

First, this study contributes to the ongoing discourse on how cross-functional trust provides value to a firm by contributing a more fine-grained understanding of the role of trust in a firm's responsiveness to market-related information. A vast number of studies confirm a positive correlation between trust and information sharing within the firm (Holste and Fields, 2010; Lin *et al.*, 2009; Rutten *et al.*, 2016), but several studies question its direct effects on information use (Moorman *et al.*, 1992, Maltz and Kohli, 1996). The findings from the current study provide new empirical evidence of an indirect effect of cross-functional trust on marketing manager's use of information from sales. This result is particularly insightful, given the overwhelming evidence that cross-functional trust is a perpetual issue between sales and marketing (Kotler *et al.*, 2006), that impedes marketing's access and use of valuable market information provided by sales. This study confirms that critical mediators should be present within firms to benefit from cross-functional trust in terms of information use. The study reveals two critical variables: sales–marketing integration and the perceived quality of the shared information.

Second, the study contributes to the current debate about the role and influence of marketing within firms (Verhoef and Leeflang, 2009; Homburg *et al.*, 2015) by suggesting that the effect of cross-functional trust on information use can be better understood by accounting for the power of marketing. While departmental power is a highly relevant research topic in marketing, with the extant literature reporting marketing's decreasing influence (Verhoef and Leeflang, 2009; Engelen *et al.*, 2012), no empirical studies have investigated the role of departmental power in information use. Building on the literature about power in organization theory, this study examines the contingent role of a marketing department's power on the relationship between cross-functional trust and information use. The findings imply that power moderates the effect of trust on information use, that is mediated by integration and perceived quality of information use. In other words, the mediating effect of integration and perceived information quality vary depending on marketing's power. This result implies that future research on the sales–marketing interface and managerial use of market information should include the contingent role of departmental power.

Third, the findings demonstrate that research focusing on cross-functional integration should devote more attention to the contingent role of departmental power. The extant marketing literature suggests that cross-functional integration is the nostrum for improving firm performance in terms of improving cross-functional relationships, organizations' responsibility to market dynamics and enhancing new product development success (Engelen *et al.*, 2012; Lyus *et al.*, 2011; Rouziès *et al.*, 2005). This study, however, lends support to the more critical perspective of cross-functional integration (Troy *et al.*, 2008). By taking into account marketing's power within the firm, this study contributes to a more fine-grained understanding of how integration creates value for the firm. The results suggest that marketing's low power undermines the mediating effect of integration between cross-functional trust and information use.

Managerial implications

This research offers important implications to both marketing and sales managers seeking ways to improve their collaboration and rely more extensively on market feedback from sales. While marketing managers often struggle by concluding meaningful insights from the abundance of information they have, information from sales is especially valuable. This information provides instant feedback from the marketplace that is tailored to the needs of the company and can be accessed at low costs. However, the relationship between sales and marketing is rarely harmonious because sales and marketing often do not perceive each other as trustworthy partners (Arnett and Wittmann, 2014; Troilo *et al.*, 2009).

This study builds on the assumptions from the extant literature, suggesting that as marketing managers trust their colleagues from sales more, they will rely more on their market feedback (Holste and Fields, 2010; Rutten *et al.*, 2016; Lin *et al.*, 2009). This study shows that firms need to establish mediating

mechanisms to benefit from cross-functional trust in terms of better marketing managerial use of sales information. When these mediating mechanisms are absent, marketing managers cannot exploit the rich information collected by sales during their daily interactions with customers. This study suggests two such mechanisms, sales–marketing integration and marketing manager's perception of information quality, and shows that the role and importance of these mechanisms are contingent on the power of the marketing unit.

The findings also show that firms with a strong, powerful marketing department should focus on building effective ties between sales and marketing by means of integration to benefit from trust in terms of better use of market information collected by sales. Apparently, firms with a strong marketing department are better able to dictate their interaction with sales, determine and communicate the kind of information they need from sales and thus use the disseminated information. The findings indicate that firms with less powerful marketing units, which want to enhance marketing's use of sales information, should not devote significant efforts to integrating sales with marketing. Sales–marketing integration may improve sales managers' motivation to collaborate with marketing on mutual goals such as the dissemination of usable market feedback, but salespeople's selling task may conflict with their market research task, and marketing's low power limits their ability to influence sales' behavior in the desired direction.

The findings highlight that when marketing's power is low, marketing managers are more dependent on input from sales. Therefore, to benefit from cross-functional trust, firms should focus on providing opportunities for information sharing between sales and marketing, for example by scheduling regular cross-functional meetings. In cases of less powerful marketing units, managers tend to attribute more credit to information from trustworthy sources, also to protect themselves from being blamed for neglecting this information. Firms should provide marketers with training to objectively assess the quality of market feedback from sales. For instance, by training marketers in techniques such as lateral thinking, which helps them to transform customer feedback from sales into meaningful, usable market information.

Limitations and directions for future research

This study has a few limitations and suggests several directions for future research. First, the study focuses on marketing managers' use of market information from sales. For several decades, the literature posits that successful firms thrive because of their ability to capture market information and use it for their marketing decisions (Kohli and Jaworski, 1990). However, this study focused on managerial information utilization without including firm performance. Performance outcomes, such as profits, new product performance, superior customer value and competitive advantage, are the ultimate goals of marketing managers, and they need effective information processing to achieve this in the current fast-changing business environment. Future research would benefit from adding these performance outcomes of managerial information utilization.

Second, the study captures marketing's power within the firm by assessing its formal position in the firm's Board of Directors. Organizational theorists acknowledge that a department's power is manifested in the representation of the members in critical organizational positions and resource allocation committees (Pfeffer, 1981), and the Board of Directors is one of the most important resource allocation committees. However, a recent study by Feng *et al.* (2015) suggests a quadruple measure of departmental organizational power, as reflected by:

- marketing's representation in leading boards;
- marketing managers' rewards;
- marketing managers' positions in the firm's hierarchy; and
- the marketing department's responsibilities.

Future research could include these more sophisticated measures of marketing's power within the firm.

Third, the current study only uses marketing's power within the firm as a moderator. The literature on the sales–marketing interface highlights that power imbalance between sales and marketing might result in dysfunctional conflicts across the interface, decreased market performance and less effective co-operation (Homburg and Jensen, 2007). Therefore, evaluating the moderating effect of marketing's power could be extended by capturing not only marketing's power within the firm but also marketing's relative power to sales.

Fourth, this study focuses on the mediating roles of perceived information quality and integration between sales and marketing. The results, related to the mediators transmitting the positive effects of cross-functional trust on information use, might motivate more in-depth studies of other potential mediators. For example, the literature suggests an evaluation of the link between cross-functional trust and information use through commitment to collaborate with colleagues from the other unit (Morgan and Hunt, 1994; Moorman *et al.*, 1992), whereas a recent study by Korhonen-Sande and Sande (2016) highlights the mediating role of knowledge integration mechanisms in the context of non-marketing managers' use of customer information. Further studies of the effects of additional mediators would enhance our understanding of the factors that determine the extent to which firms will benefit from trust in terms of information use.

Fifth, while most studies in the field of the sales–marketing interface do not account for the effect of the business environment (i.e. country-specific business culture; regulations), these environmental factors may serve to influence a manager's intention to use market information. For example, managers might use information merely for appearance's sake, not to bring any real insights to the decision process (Diamantopoulos and Souchon, 1999). Environmental uncertainties and business overregulation may well enhance such managerial information use behaviors. This study accounts for market turbulence as a control variable; in turbulent markets, it can be expected that information is especially important to predict customer behavior. This suggests that market turbulence facilitates or hinders marketing managers' use of market information and that it may also be interesting to scrutinize its role as a moderating variable on the effects of trust on information use.

Sixth, although the current study focuses on cross-functional trust between sales and marketing, single informants were used to provide the data. Because this may limit the insights gained, it would be interesting to collect dyadic data and test the effects of the variables on the two subsamples of sales and marketing managers. In addition, this study uses cross-sectional data, which describe various constructs at a single point in time, while cross-functional trust may not be constant. Longitudinal studies could illuminate how the dynamics of trust affect information use over time.

Finally, this study focuses on market feedback from sales managers only and does not consider marketing manager's use of sales–related information from decision analytic tools. Considering the proliferation of big data and related data science analytics, further research could uncover how these platforms (e.g. Salesforce.com) influence cross-functional information exchange and use.

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Further reading

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Appendix

Table AI Measurement constructs

Construct/variable (inspired by or based on)	Items (factor loadings in parentheses)
Use of market information from sales **(Anderson et al. 1981) (reflective)**	(1 = fully disagree, 5 = fully agree) Information I received from my sales contact lead to concrete actions (0.68) Information I received from my sales contact improved my productivity (0.96) Information I received from my sales contact improved implementation of new projects or products (0.71)
Perceived information quality **(Maltz and Kohli, 1996) (reflective)**	(1 = fully disagree, 5 = fully agree) Information provided by the sales counterpart was accurate (0.71) My sales counterpart provided credible estimates of the sales potential for our products (0.64) My sales counterpart provided information relevant for my job (0.76) My sales counterpart provided his/her information clearly (0.86)
Cross-functional trust **(Maltz and Kohli, 1996) (reflective)**	(1 = fully disagree, 5 = fully agree) My sales counterpart can be depended on to provide a good view of the market (0.71) My sales counterpart has a good understanding of customers and competitors (0.92) My sales counterpart keeps her/his commitments to me (0.67) My sales counterpart is a partner in my job (0.81)
Marketing and sales functions' integration **(Van de Ven and Ferry, 1980) (reflective)**	(1 = fully disagree, 5 = fully agree) Sales and marketing closely collaborates with each other (0.88) Sales and marketing has compatible goals and objectives (0.71) Sales and marketing/agreed on priorities of each department (0.86)
B2B vs B2C **(Verhoef and Leeflang, 2009)**	Please indicate the percentage of your turnover that arise from B2B or B2C markets: B2B (1)...B2C (10)
Company tenure	For how many years have you been working for this organization?
Market turbulence **(Jaworski and Kohli, 1993)**	(1 = fully disagree, 5 = fully agree) New customers tend to have product related needs that are different from those of our existing clients In our kind of business customers' product preferences change quite a bit over time Our customers tend to look for new product all the time
Power of marketing	Has marketing a direct representation in the firm's Board of Directors? 1: yes 2: no

Notes: B2B = Business-to-Business, B2C = Business-to-Customer, Model fit: (χ^2 = 226.93, df = 107; χ^2/df = 2.12; p = 0.000; AGFI = 0.89, GFI = 0.92, NFI = 0.92, IFI = 0.96, CFI = 0.96, RMSEA = 0.05, PCLOSE = 0.11). All loadings are significant at the $p < 0.001$ level

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