Mark Lett (2013) 24:323–337
DOI 10.1007/s11002-013-9240-7

Marketing's roles in innovation in business-to-business firms: Status, issues, and research agenda

Abbie Griffin · Brett W. Josephson · Gary Lilien · Fred Wiersema · Barry Bayus · Rajesh Chandy · Ely Dahan · Steve Gaskin · Ajay Kohli · Christopher Miller · Ralph Oliva · Jelena Spanjol

Published online: 31 May 2013

Abstract A project funded by the Institute for the Study of Business Markets to develop an understanding of the current state of business-to-business marketing and a research agenda for the field identified a *lack of understanding of how the marketing function can or should best contribute to firms' innovation efforts* as the top priority. A workshop of senior academics and research-oriented practitioners explored this topic further, identifying four

A. Griffin
University of Utah, Salt Lake City, USA
e-mail: abbie.griffin@business.utah.edu

B. W. Josephson
Washington State University, Pullman, USA
e-mail: brett.josephson@wsu.edu

G. Lilien (✉)
Pennsylvania State University, 468 Business Building, Penn State, University Park, PA 16802, USA
e-mail: g5l@psu.edu

F. Wiersema
B2B Leadership Board, ISBM, University Park, USA
e-mail: fredw@B2Bboard.org

B. Bayus
University of North Carolina, Chapel Hill, USA
e-mail: Barry_Bayus@kenan-flagler.unc.edu

R. Chandy
London Business School, London, UK
e-mail: chandy@london.edu

E. Dahan
UCLA, Los Angeles, USA
e-mail: elydahan@gmail.com

S. Gaskin
Applied Marketing Science, Waltham, USA
e-mail: sgaskin@ams-inc.com

specific themes: (1) improving customer needs understanding and customer involvement in developing new products, (2) innovating beyond the lab, (3) disseminating and implementing research findings in firms, and (4) marketing's overall role in innovation. This article defines these themes, sketches the current status of knowledge about each theme, frames practitioners' issues with them, and proposes research agendas for each theme to move the field forward. The goal is to encourage rigorously executed academic research that can also help firms innovate more successfully.

Keywords Innovation · B2B · New products · Open innovation

1 Introduction

The need for innovation is consistently a top business priority among CEOs (Jaruzelski et al. 2012; Taylor et al. 2012) and the importance of a firm's ability to innovate cannot be overstated (Hauser et al. 2006; Rubera and Kirca 2012). For decades, the extant literatures in economics (Schumpeter 1942), management (Cohen and Levinthal 1990; Porter 1985), marketing (Chandy and Tellis 1998), finance (Brown et al. 2009), and other disciplines has documented the importance innovation plays in a firm's ability to create customer value, differentiate itself from competitors to develop a sustainable competitive advantage (Day and Wensley 1988; Porter 1985) and to permit the firm to grow revenues and profits (Sood and Tellis 2009).

Marketing scholars have helped reshape the innovation conversation away from classical economic perspectives, such as the Schumpeterian logic (Schumpeter 1942), towards a focus on the firm's process for developing new products (Chandy et al. 2006; Cooper 2011), customers (Griffin and Hauser 1993; Hoffman et al. 2010), ability to generate and utilize resources from its external networks (Noordhoff et al. 2011; Rindfleisch and Moorman 2001), and culture (Tellis et al. 2009) among other topics.

However, previous published analyses of and research agendas for the research opportunities that remain in innovation have been prepared primarily from the perspective of academics (Hauser et al. 2006). Furthermore, few general theories, models, or findings about better practices that have been generated by marketing academics are being implemented by firms in general, and business-to-business (B2B) firms in particular (see Lilien 2011, for example). This practitioner ignorance

A. Kohli
Georgia Institute of Technology, Atlanta, USA
e-mail: Ajay.Kohli@mgt.gatech.edu

C. Miller
Innovation Focus, Lancaster, USA
e-mail: cwmiller@innovationfocus.com

R. Oliva
The Pennsylvania State University, University Park, USA
e-mail: Roliva@psu.edu

J. Spanjol
University of Illinois at Chicago, Chicago, USA
e-mail: spanjol@uic.edu

of the knowledge base generated by marketing academics is especially acute concerning innovation, a process for which the marketing department frequently has little influence within the B2B firm (Workman 1993).

One example of research that has gained little traction in practice concerns methods to obtain customer needs for developing new products. Significant academic research has demonstrated that customers can articulate their problems and needs when asked questions in an appropriate manner (Griffin and Hauser 1993) and the Voice of the Customer (Griffin and Hauser 1993) and Customer Visit (McQuarrie 2008) methods have been developed and published to enable managers to elicit those needs more efficiently and effectively. In fact, "Voice of the Customer" has become a hugely popular buzzword.[1] However, fewer than half of all firms say they have implemented Voice of the Customer processes in their innovation systems (Barczak et al. 2009), and most firms who claim to have Voice of the Customer processes have actually implemented some other set of unrelated market research techniques (Katz 2011).

Another method developed by academics and vetted in industrial application, but still seldom implemented is the Lead User technique (von Hippel 1986; Lilien et al. 2002). Although annual sales from lead user projects have been projected to be eight times the annual sales generated from "traditional" firm-developed products for one firm (Lilien et al. 2002), most firms do not use the method (Barczak et al. 2009; Olsen and Bakke 2001).

The discussion above leads to two basic questions:

1. What are the most important problems concerning marketing and innovation in B2B firms that the academic literature has not sufficiently addressed?
2. Why is the level of practitioner knowledge and use of research findings on innovation so low, and what can marketing academics do about it?

2 Background: the B2B agenda and research priorities

The B2B Leadership Board at the Institute for the Study of Business Markets (ISBM) consists of a number of B2B Chief Marketing Office (CMO) level executives and senior B2B marketing academics. One of the Board's missions is to determine "the major needs and most promising opportunities in the B2B domains, along with their implications for B2B marketers, academic researchers and educators" (Wiersema 2012, page 1). To meet that goal, in 2011 the Board embarked on a project to set a B2B Agenda and associated Research Priorities.

In the first phase of the project, Fred Wiersema interviewed 72 executives from 61 B2B firms and 30 academics. He content-analyzed the interviews and reviewed and deepened the findings with half-day working sessions with a subset of the academics from the Leadership Board, and then in a roundtable with 15 CMOs.

The primary question asked was: "Five years into the future, there will be B2B firms who have succeeded and are in the lead and others who have not. What, in your opinion, will leading edge firms have done that the others have not?" Innovation effectiveness came up in over half the interviews as a key discriminator, but the interviews provided no clear or consistent role for marketing in fostering that

[1] Googling "Voice of the Customer" on April 20, 2013 returned over 800,000 hits.

innovation. Two of the key report findings highlighted issues associated with how marketing contributes to the innovation process:

- How to improve and develop how the marketing/innovation interface operates
- How to extract and leverage more granular customer and market knowledge

Based on these findings, ISBM launched a project to further develop these topics and a research agenda specific to understanding how marketing can better support innovation in the firm. Using a Delphi approach, 15 leading innovation academics provided an "empirical generalization" about one of the following two statements:

1. Customer engagement in B2B innovation: What do we and should we know?
2. B2B innovation and NPD: What drives innovation in the B2B space and how does innovation relate to NPD?

The Delphi responses were compiled and sent out to a select set of academics and research-oriented practitioners (the authors), who participated in a half-day workshop to develop research priorities. Four themes emerged:

Theme 1: Improving customer needs understanding and customer involvement in developing new products
Theme 2: Innovating beyond the lab
Theme 3: Disseminating and implementing academic research in firms
Theme 4: Marketing's overall role in innovation

While all four themes represent opportunities for marketing researchers to address in future research, the first two provide the most significant potential. We define and discuss each of these themes in more detail below, and suggest specific propositions and research questions for future investigation.

3 Theme 1: Improving customer needs understanding and customer involvement in developing new products

The first major theme to emerge from our research concerns the role of customers in the innovation management process. Gathering good needs information is especially critical in the B2B realm, where customers represent individual organizations whose needs or requirements cannot be readily simulated or understood using laboratory subjects. Numerous calls for improving customer data (see Day and Montgomery 1999) have been made in the literature, and some methods from academics like Voice of the Customer (Griffin and Hauser 1993) and Customer Visits (McQuarrie 2008), as well as from consultants like Outcome Driven Innovation (Ulwick 2005) and New Product Blueprinting (Adams 2008), have been developed to provide such information.

The marketing executives in the B2B Agenda Project consistently cited the gap between their need for and access to pertinent, accurate, and timely data about customer trends, needs, and behaviors and the challenges and complexity of gathering such information. They are unsure whether, when or how to involve customers in innovation or which customers to engage. They are concerned that if they do involve customers in the innovation process, sensitive information about technology developments, strategies, or other proprietary issues can leak. They acknowledge that information should be gathered from potential customers directly, customers who are geographically distributed, making the collection of customer information time consuming and costly. Because the difficulties and costs of collecting such information are well understood but the opportunity cost of not collecting the information is not clear, executives are challenged to build a business case for the customer information investment. Finally, executives note that even when customer knowledge has been collected, it is often under- or inappropriately utilized.

The need to improve customer needs understanding will only grow in importance. Informants from both practice and academia commented on emerging markets' emphasis on "good-enough" product offerings (lower priced, with fewer features and designs that allow them to be manufactured and delivered faster and/or locally). Both practitioners and academics familiar with emerging markets stressed the need for a better understanding of how the organizational buying contexts there differ from those in industrialized markets due to the more prominent roles of governments and nongovernmental organizations in transactions and in the economy of emerging markets.

While Steve Jobs at Apple, Henry Ford, and others have claimed that customers are not able to tell firms what products they should be developing, research has shown that customers are, in fact, able to articulate their problems, needs, and preferences, and in great detail—when asked about these in specific ways (Griffin and Hauser 1993; McQuarrie 2008). However, marketers and especially salespeople typically speak the language of features and specifications, rather than customer problems. Thus, interviewers not trained in how to ask questions of potential customers to get them to articulate needs or problems will most likely bring information back to the organization that leads to incremental improvements to today's products rather than to breakthrough innovations. Both the Voice of the Customer and Customer Visit methods were developed as "do it yourself" methods for gathering needs so that members of the development team could execute the methods themselves.

Extending this line of research, Hoffman et al. (2010) develop a scale to identify customers with an "emergent nature" (a unique capability to imagine or envision how concepts might be further developed so that they will be successful in the mainstream marketplace) and show that such customers are better problem articulators than are experts, lead users (von Hippel 1986) or average customers. Firms may be able to prescreen potential interviewees with the scale of Hoffman et al. (2010) to find the best individuals from whom to gather data by avoiding inarticulate customers.

Much needs-gathering traditionally has been performed either by an internal market research group or by a specialist market research firm. The findings from such work are often underdistributed and under-utilized in firms, especially if the resulting information is not viewed as credible and of the highest quality by product development teams, most of whom reside outside of the marketing function. Moorman et al. (1992) show that an increased use of market research results is associated with higher quality interactions between the information providers and users, which results from trust in the information providers and the information they collect. In later research, Moorman et al. (1993) find that trust between market information providers and users is higher with increased researcher expertise, sincerity, integrity, tactfulness, project timeliness, customization, and willingness to decrease user uncertainty. Marketers who employ external groups to help the firm gather customer needs must take steps to ensure the use of the information generated; those who do not make the organizational as well as the financial investment are generally wasting money.

Another way to obtain customer needs is to involve customers directly in the innovation process. Direct customer involvement provides several benefits to the firm, including unique knowledge about customer needs (Fang 2008) which can result in more innovative products (von Hippel 2005). However, some firms are reluctant to include customers in the innovation process due to concerns about opportunism (Noordhoff et al. 2011) and knowledge leakage.

While marketing executives acknowledge the benefits of customer involvement in the innovation process, they frequently raise three questions: (1) Which customers should they involve?; (2) How should they involve those customers?; and (3) How can they measure the impact of that involvement?

Managers seek customers likely to provide a valuable contribution without the dangers of information leakage and opportunism (Noordhoff et al. 2011). Finding the right customers is especially critical in B2B markets, where the impact of a customer's customer (end user) can be key to innovation success. Hence, research into customer selection must consider the entire value chain the firm resides within, not just the firm's direct customers. These downstream customers may be very difficult to find or contact, as the firm's direct customers sometimes hold their customers' information as proprietary, or regulations may prevent the supplier firm from contacting them.

Several pieces of research provide insight on appropriate customer selection. Lead users (von Hippel 1986), individuals for whom a problem is so critical that they have developed a solution of their own, have been proposed as key assets to an innovation program. And, as suggested above (Hoffman et al. 2010), the emergent nature scale may help detect better customers to involve in innovation projects.

Once the appropriate customer has been selected for involvement, the challenge is how to create an appropriate role for that customer in the innovation process. Should the customer be an active or passive participant in the process? Also, who is in charge of monitoring, facilitating, and controlling the customer during the process? Fang (2008) explores the impact of customer participation and the tradeoff between innovativeness and optimal speed to market. He finds that firms can use customers as either an information resource, simply sharing information during the innovation process, or as a co-developer, an active participant in the innovation process. He reports that using customers as information sources is positively related to product innovativeness only when downstream customer network connectivity is low. He also shows that including customers as co-developers can actually hurt new product innovativeness when process interdependence is low.

In terms of measuring impact of customer involvement, the Lilien et al. (2002) approach involves a natural experiment across different divisions within 3M, research that should be replicated in other domains and for other processes.

3.1 Specific research questions

Marketing managers and academics note the importance of continuing to improve the quality of data received about consumer needs, trends, and habits, as well as the overall impact of customer involvement in the innovation process. As a discipline, marketing is well suited to provide valuable insights into both issues, as it resides at the customer–firm interface. We propose the following propositions and research questions as the most significant issues managers need answers to. While various researchers have looked at some facets of some of these propositions and questions, no comprehensive research exists to date that produces a complete answer to any of them.

Proposition 1: Pertinent customer information, used diligently, improves innovation outcomes

Specific research questions:

1.1 Where, how, and under what circumstances does using customer needs knowledge make a significant difference in innovation outcomes?
1.2 What kinds of customer information are most important at different points in the innovation process?
1.3 How does the value of the information provided differ by product/market type?
1.4 How much does using customer needs knowledge impact NPD and firm success?
1.5 What are the best ways to obtain and incorporate the needs of downstream customers (the firm's customers' customers) in the innovation process?
1.6 Once obtained, what is the best way to ensure that customer knowledge actually is used in the innovation process?
1.7 What customer knowledge-related factors are associated with breakdowns in the innovation process?

Proposition 2: Inputs from some types of customers are better than inputs from others

Specific research question:

2 Which customers provide the most valuable information (at what stages) of the innovation process?

Proposition 3: Involving customers in the innovation process improves innovation outcomes

Specific research questions:

3.1 What are the best ways to involve customers in the innovation process?
3.2 What are the contingencies and trade-offs in the different types of involvement?
3.3 How can firm's best involve multiple customers simultaneously (who may be competitors) in the innovation process?

Proposition 4: The benefits of involving customers in innovation outweigh the costs

Specific research questions:

4. How can/should we measure the costs and benefits of involving customers in the innovation process?

Proposition 5: The issues above differ by geography, firm type (size, industry), and market type (emerging versus mature).

4 Theme 2: Innovating beyond the lab

Firms must move at least some innovation activities "beyond the R&D laboratory" in the coming years to create more breakthrough innovations and to increase customer satisfaction with the firm's offerings. The B2B Agenda uncovered two critical needs associated with changing the NPD processes used to help firms improve innovation performance:

1. Moving innovation away from a product or service focus and towards a total solution perspective.
2. Empowering the social network as a source of innovation.

The traditional paradigm for creating new products consists of an internal, hierarchical structure to ensure control over the development process, resulting products and any new information that arises from the project (Chesbrough 2003). Indeed, the majority of the academic research on innovation since the 1980s has focused on improving and refining processes for developing new innovations internally. However, while these types of processes increase the success and efficiency of incremental innovation, they do not create breakthrough innovations (Barczak et al. 2009; Griffin et al. 2012). Thus, most NPD portfolios contain few breakthrough and more incremental innovations, hampering firms' abilities to grow organically (Barczak et al. 2009).

Both marketing managers and academics recognize that firms must find new ways to create customer value beyond pursuing the efficiency and effectiveness enhancements that are supported by most NPD processes currently in use. Most current innovation processes produce products that, while technically superior to prior versions, often do not fulfill customers' total solution needs. The view of Levitt (1980) on this issue was that it was an "augmented product" that provided superior value to a customer, which consisted of a tangible product as well as intangible service components. Vargo and Lusch (2004) stress that firms must understand the impact a firm's overall solution offering has on the customer.

Fang et al. (2008) find that managers normally respond to failures of their product-focused approaches by focusing on service. However, while responding firms did achieve higher profit growth (Eggert et al. 2011), they did not broaden their efforts toward a "total solution" as Vargo and Lusch (2004) recommend, but rather, simply added services, shifting innovation's focus from product development to service development. Moreover, Tuli et al. (2007) suggest that it may be useful to consider a total solution as a set of ongoing relational processes between suppliers and customers that address a customer's issues, rather than as a bundle of goods and services.

Even when firms try to produce a total solution, forces within can make it difficult to do so. For example, the sales function is often reluctant to support modifications of the firm's current offerings (Ahearne et al. 2010), since new offerings require more selling effort and time. Finance and senior management also may not support a breakthrough innovation if the resulting total solution cannibalizes the firm's current investments and assets (Chandy and Tellis 1998). And the marketers interviewed for the B2B Agenda noted that their R&D colleagues are reluctant to move from a product-centric to a total solutions orientation, perhaps because they are unsure how to do so.

The second major opportunity for moving R&D outside the lab is to engage in socially based or open innovation (Chesbrough 2003), where the firm uses external as well as internal constituents in the creation, development, and execution of their innovation project. Open innovation means sharing the risks as well as the rewards of breakthroughs with external constituents (Chesbrough 2003; Von Hippel 2005). Firms practice open innovation in a number of ways, including outsourcing the R&D function, posting technical problems on either proprietary or open web sites in competitions, sponsoring design competitions, and hosting electronic suggestion boxes (Bayus 2013).

While open innovation presents a number of potential benefits to the firm, many senior level managers are reluctant to use this approach because of the risks: open innovation may make the firm's internal knowledge, capabilities, and strategies more visible to competitors, suppliers, and customers, potentially outweighing potential benefits.

4.1 Specific research questions

Far more has been written about open innovation in the popular press than in academic journals to date. While innovating beyond the lab appears highly promising, research is needed to separate what is real from what is hype and to develop a comprehensive model and understanding of the processes, structures, incentives, and outcomes when innovating in communities beyond the firm's boundaries. The senior managers interviewed for the B2B Agenda recognize the promise of innovating beyond the lab but are reluctant to pursue nontraditional innovation without a better understanding about both benefits and pitfalls. Hence, we pose the following proposition and research questions:

Proposition 6: Innovating beyond the laboratory opens up potentially rich avenues for B2B firms to create new customer value

Specific research questions:

6.1 What are the most effective processes to develop total solution offerings (augmented products and attendant services) aimed at increasing B2B customer value?
6.2 What are the most effective mechanisms to develop business model innovations aimed at increasing B2B customer value?
6.3 By what means, mechanisms, and logic could nontraditional innovation approaches create new and sustainable customer value in B2B firms?
6.4 What are the benefits, risks, and implications that arise from using nontraditional innovation approaches?
6.5 What impediments do senior managers experience, and what risks do they perceive, in pursuing/exploring breakthrough innovations.
6.6 What should the tradeoffs be between making and buying customer-value creating innovations and how do those tradeoffs differ by firm and by industry?

5 Theme 3: Disseminating and implementing research findings in firms

Research shows that various innovation-related concepts, models, processes, and approaches can significantly improve innovation performance in firms (Hauser et al. 2006). However, the utilization of these concepts and approaches falls well short of their promise. The academic literature has long searched for why research findings are not being employed by practitioners and managers (Jaworski 2011; Lilien 2011; Little 1970; Reibstein et al. 2009): if academic research in marketing has something to bring to the innovation table, then why are managers not utilizing those research findings? Our analysis uncovered several barriers inhibiting academic marketing research on innovation from impacting B2B firms.

Marketing research on innovation has uncovered some noteworthy findings that should significantly help a firm to succeed in today's dynamic marketplace. For instance, research has linked the innovation process to generating excess consumer welfare via improved products and lower prices (Hauser et al. 2006), to lowering firm risk (McAlister et al. 2007), and to improving firm financial performance (Hauser et al. 2006; Pauwels et al. 2004). However, scholars have noted (see Lilien 2011 for a review), and the B2B Agenda interviews have confirmed, that the ability of marketing academics to disseminate knowledge beyond the academic community has been disappointing. Which party is more responsible for this lack of dissemination is unclear, however.

Perhaps there is something inherent in the research methods used by academics that undermine managerial interest in the results. Alternatively, perhaps the problem is a mismatch between incentives. The most effective mechanisms for showing firms how to adopt new methods are noncoercive, normative, "best practice" illustrations (Frazier and Rody 1991; Frazier and Summers 1984). These illustrations require concrete examples and role models for how to implement the new method. However, while that approach may work for consultants, it is not how academics disseminate their research. Academic writing is more general and abstract in nature, with illustrations, even when included, normally short, and lacking in sufficient detail to help implementation. Hence, practitioners are challenged to translate academic findings to their situation, and thus much academic knowledge is "lost in translation" (de Ven et al. 2006).

To understand and apply academic research, managers would have to attend academic conferences, read technical academic journals, and then figure out how the general findings apply to their firms. And even if the research appears to be useful, the tendency of academics to collect industry-specific innovation data (e.g., pharmaceuticals, high tech) may hinder broader acceptance, as managers may view their firm context to be different from those studied.

There may be personal or political reasons for lack of acceptance of new findings (Cropanzano et al. 1999). For example, a firm's willingness to cannibalize its current investments and assets is a strong predictor of creating breakthrough innovations (Chandy and Tellis 1998). However, senior managers are often elevated to the highest levels of the corporation because they were responsible for developing or championing what became a major product or product line for the firm. Once they reach that position, they may be reluctant to abandon the proven offering at the expense of new innovative ones, even though the breakthrough product could lead to significant new growth (Chandy and Tellis 1998; 2000).

In addition, managers may feel that the (short term) costs outweigh the riskier, long term benefits to the firm of adopting academic findings. Both academic (Chakravarty and Grewal 2011; Hayes and Abernathy 1980; Mizik 2010) and popular press articles (Lubber 2012) have noted the perils that short term, or quarterly capitalism, has on a firm's long-term health and performance. Mizik and Jacobson (2007) show that myopic management, the overemphasis on operations that produce immediate gains at the expense of long-term profits, initially improves firm financial performance, but is detrimental in the long term. However, the most prevalent executive compensation structures focus on maximizing quarterly stock performance, which places the executive suite in tension with the long-term nature of marketing activities such as innovation (Anderson 2006).

5.1 Specific research questions

Managers by and large are not using academic results to change or improve innovation in their firms. Academics are not rewarded by their institutions for translating academic articles into practice or disseminating research beyond presenting at academic conferences and writing technical academic journal articles. Both academia and business would benefit by additional research on the following issues to address the proposition:

Proposition 7: Academics can improve firms' implementation of their research findings on innovation success

Specific research questions:

7.1 What academic research methods are conducive to firms' using research findings in changing their innovation process?
7.2 What organizational factors and conditions are conducive to firms' using academic research findings in changing their innovation processes?
7.3 What language and communication mechanisms should academics use to improve the implementation of academic research on innovation in firms?
7.4 What actions can academics take to raise the level of implementation of academic research on innovation in firms?
7.5 What are the best methods to help firms implement NPD academic research findings and who inside and outside the firm should be involved? (consultants/intermediaries)

6 Theme 4: The marketing function's involvement in innovation

Should the marketing function, in fact, even be concerned with the innovation process and its outcomes? Marketing academics feel that innovation is a topic that marketers should be intimately involved with (Hauser et al. 2006), but questions remain about whether they really should be, especially at the executive level, which often views the marketing department's capabilities with distrust (Sheth and Sisodia 2005; Verhoef and Leeflang 2009).

The resource dependence (Pfeffer and Salancik 1978) and constituency-based theories of the firm (Anderson 1982) highlight the integral aspect marketing plays in the innovation process (Chandy et al. 2006) as well as in innovation outcomes (Gatignon and Xuereb 1997; Sood and Tellis 2009). The role of each function in the firm is to secure a reliable, continual, and sufficient flow of resources from external constituents to support the firm's activities (Anderson 1982). Marketing's role is to deliver cash to the firm by satisfying long-term customer needs, functioning as the interface between customers and the firm (Day and Montgomery 1999), appearing to make it central to the innovation process.

The academic literature (Griffin and Hauser 1993; Hoffman et al. 2010) notes that the knowledge the marketing function provides about current, as well as future, customer needs is essential to the success of innovation projects. And marketing also places pressure on other functions of the firm to embrace the marketing concept (Kohli and Jaworski 1990; Levitt 1980; Narver and Slater 1990), resulting in improved organizational learning (Slater and Narver 1995) and an organizational culture (Gatignon and Xuereb 1997) that promotes improved innovation outcomes (Rubera and Kirca 2012).

However, significant barriers in B2B firms keep marketing from exerting control over innovation and NPD decisions. Workman (1993) found three that were particularly limiting to the marketing's ability to influence these decisions: (1) functional power structures, (2) limited marketing resources, and (3) time-to-market pressures.

In many B2B firms, functional power more frequently resides in functions such as engineering and development (e.g., Westinghouse Nuclear), manufacturing (e.g., Intel), or finance (e.g., Allied Signal prior to its Westinghouse acquisition) than in the marketing function. This lack of power frequently results in understaffing the marketing function. In addition, marketing's influence is often undermined through time-to-market pressures (Griffin 1993), as project teams do not have the time to gather customer need information, and proceed with innovating based on their own judgments of which customer needs are most important to satisfy. Hence, marketing's influence in innovation is often indirect, requiring marketing to build informal coalitions to influence engineering, development, and senior management decisions.

Marketing's problems with influencing innovation decisions were clearly articulated by the CMOs in the B2B Agenda research, who indicated that their connection to innovation decisions in their firms was often unclear. They indicated that while they are under increased corporate pressure to create more compelling customer value, their views and proposed initiatives were under-appreciated by other senior executives.

6.1 Specific research questions

In practice, while academics feel that innovation decisions would benefit from marketing's input, little research on marketing's role(s) in the innovation process has been done, and none has tried to determine what marketing's optimal role should be:

Proposition 8: Involving marketing in the innovation process improves innovation outcomes

Specific research questions:

8.1 What should be the role(s) of the marketing function in B2B innovation decision making and strategy setting? Should those roles differ by industry/firm type?

8.2 If marketing's current role is less than optimal, what can marketing do to increase marketing's influence over innovation strategy?
8.3 When customer value creation shifts from traditional, NPD-guided innovation to innovating beyond the lab, what are the implications for the optimal role and involvement of the marketing function?
8.4 How should marketing interact with top management and other functions in the innovation process?

7 Conclusion

Successful innovation has the power to reshape marketplaces, improve people's lives and society, and create new industrial leaders (Chandy and Tellis 1998; 2000). It is at the forefront of a firm's ability to successfully differentiate itself from competitors and achieve a sustainable competitive advantage (Porter 1985). Given its importance, it is surprising that firms appear to undervalue innovation as critical for firm survival and growth. The discipline of marketing is uniquely situated to play an active role in this continuing dialog regarding innovation's importance, necessity, and process. As the representative of the customer to the firm (Anderson 1982), the marketing department serves as a vital conduit for unique market intelligence (Kohli and Jaworski 1990) that is essential for successful innovation. As such, marketing should continue to work to demonstrate its value and importance in the innovation domain.

The goal of this paper is not to provide an exhaustive review, integration, or synthesis of the innovation research that resides within marketing, but to highlight a series of themes that are of concern to practitioners as well as academics. We hope to stimulate both new and expanded research streams to facilitate the conversation between academics and practitioners concerning B2B marketing and innovation and the link to other functions within the firm.

Acknowledgments The authors would like to acknowledge the Institute for the Study of Business Markets for its support.

References

Adams, D. (2008). *New product blueprinting: the handbook for B2B organic growth*. Cuyahoga Falls: AIM.

Ahearne, M., Rapp, A., Hughes, D. E., & Jindal, R. (2010). Managing sales force product perceptions and control systems in the success of new product introductions. *Journal of Marketing Research, 47*, 764–776. August.

Anderson, P. F. (1982). Marketing, strategic planning and the theory of the firm. *Journal of Marketing, 48*, 15–26. Spring.

Anderson, E. W. (2006). Linking service and finance. *Marketing Science, 25*(6), 587–589.

Barczak, G., Griffin, A., & Kahn, K. B. (2009). Perspective: trends and drivers of success in NPD practices: results of the 2003 PDMA best practices study. *Journal of Product Innovation Management, 25*(1), 3–23.

Bayus, B. L. (2013). Crowdsourcing new product ideas over time: an analysis of the Dell IdeaStorm community. *Management Science, 59*(1), 226–244.

Brown, J. R., Fazzari, S. M., & Petersen, B. C. (2009). Financing innovation and growth: cash flow, external equity, and the 1990s R&D boom. *Journal of Finance, 64*(1), 151–185.

Chakravarty, A., & Grewal, R. (2011). The stock market in the driver's seat! Implications for R&D and marketing. *Management Science, 57*(9), 1595–1609.

Chandy, R., & Tellis, G. J. (1998). Organizing for radical product innovation: the overlooked role of willingness to cannibalize. *Journal of Marketing, 35*(4), 474–487.

Chandy, R., & Tellis, G. J. (2000). The incumbent's curse? Incumbency, size, and radical product innovation. *Journal of Marketing, 64*(3), 1–17.

Chandy, R., Hopstaken, B., Narasimhan, O., & Prabhu, J. (2006). From invention to innovation: conversion ability in product development. *Journal of Marketing Research, 43*(3), 494–508.

Chesbrough, H. W. (2003). *Open innovation: the new imperative for creating and profiting from technology*. Boston: Harvard Business School Press.

Cohen, W. M., & Levinthal, D. A. (1990). Absorptive capacity: a new perspective on learning and innovation. *Administrative Science Quarterly, 35*(1), 128–152.

Cooper, R. (2011). *Winning at new products: creating value through innovation*. New York: Basic Books.

Cropanzano, R., Howes, J. C., Grandey, A. A., & Toth, P. (1999). The relationship of organizational politics and support to work behaviors, attitudes, and stress. *Journal of Organizational Behavior, 18*(April), 159–180.

Day, G. S., & Montgomery, D. B. (1999). Charting new directions for marketing. *Journal of Marketing, 63*(4), 3–13.

Day, G. S., & Wensley, R. (1988). Assessing advantage—a framework for diagnosing competitive superiority. *Journal of Marketing, 52*(2), 1–20.

de Ven Van, A. H., & Johnson, P. E. (2006). Knowledge for theory and practice. *Academy of Management Review, 31*(4), 802–821.

Eggert, A., Hogreve, J., Ulaga, W., & Muenkhoff, E. (2011). Industrial services, product innovations, and firm profitability: a multiple-group latent growth curve analysis. *Industrial Marketing Management, 40*, 661–670. June.

Fang, E. (2008). Customer participation and the trade-off between new product innovativeness and speed to market. *Journal of Marketing, 72*(4), 90–104.

Fang, E., Palmatier, R. W., & Steenkamp, J. B. E. M. (2008). Effect of service transitions on firm value. *Journal of Marketing, 72*, 1–14. September.

Frazier, G. L., & Rody, R. C. (1991). The use of influence strategies in interfirm relationships in industrial-product channels. *Journal of Marketing, 55*(1), 52–69.

Frazier, G. L., & Summers, J. O. (1984). Interfirm influence strategies and their application within distribution channels. *Journal of Marketing, 48*(3), 43–55.

Gatignon, H., & Xuereb, J. (1997). Strategic orientation of the firm and new product performance. *Journal of Marketing Research, 34*(1), 77–90.

Griffin, A. (1993). Metrics for measuring product development cycles times. *Journal of Product Innovation Management, 10*(2), 112–125.

Griffin, A., & Hauser, J. R. (1993). The Voice of the Customer. *Marketing Science, 12*(1), 1–27.

Griffin, A., Price, R. L., & Vojak, B. (2012). *Serial innovators: how individuals create and deliver breakthrough innovations in existing organizations*. Palo Alto: Stanford University Press.

Hauser, J., Tellis, G. J., & Griffin, A. (2006). Research on innovation: a review and agenda for marketing science. *Marketing Science, 25*(6), 687–717.

Hayes, R. H., & Abernathy, W. J. (1980). Managing our way to economic decline. *Harvard Business Review, 58*, 67–77.

Hoffman, D. L., Kopalle, P. K., & Novak, T. P. (2010). The "right" consumers for better concepts: identifying consumers high in emergent nature to develop new product concepts. *Journal of Marketing Research, 47*(5), 854–865.

Jaruzelski, B., Loehr, J., and R. Holman (2012) The 2012 global innovation 1000 study. http://www.booz.com/global/home/what_we_think/global-innovation-1000.

Jaworski, B. J. (2011). On managerial relevance. *Journal of Marketing, 75*(4), 211–224.

Katz, G. (2011). Nine myths about the voice of the customer. *Visions* (October), 24–25.

Kohli, A. K., & Jaworski, B. J. (1990). Market orientation: the construct, research propositions, and managerial implications. *Journal of Marketing, 54*(2), 1–18.

Levitt, T. (1980). Marketing success through differentiation—of anything. *Harvard Business Review, 58*(1), 83–91.

Lilien, G. L. (2011). Bridging the academic–practitioner divide in marketing decision models. *Journal of Marketing, 75*(4), 196–210.

Lilien, L. G., Morrison Pamela, D., Searls, K., Sonnack, M., & Von Hippel, E. (2002). Performance assessment of the lead user idea-generation process for new product development. *Management Science, 48*(8), 1042–1059.

Little, R. W. (1970). The marketing channel: who should lead this extra-corporate organization? *Journal of Marketing, 34*(1), 31–38.

Lubber, M. (2012). Ending quarterly capitalism. http://www.forbes.com/sites/mindylubber/2012/02/21/ending-quarterly-capitalism/.

McAlister, L., Srinivasan, R., & Kim, M. C. (2007). Advertising, research and development, and systematic risk of the firm. *Journal of Marketing, 71*(1), 35–48.

McQuarrie, E. (2008). *Customer visits: building a better market focus* (3rd ed.). New York: Sharpe.

Mizik, N. (2010). The theory and practice of myopic management. *Journal of Marketing Research, 47*, 594–611. August.

Mizik, N., & Jacobson, R. (2007). Myopic marketing management: evidence of the phenomenon and its long-term performance consequences in the SEO context. *Marketing Science, 26*(3), 361–379.

Moorman, C., Zaltman, G., & Deshpandé, R. (1992). Relationships between providers and users of market research: the dynamics of trust within and between organizations. *Journal of Marketing Research, 29*(3), 314–328.

Moorman, C., Deshpandé, R., & Zaltman, G. (1993). Factors affecting trust in market research relationships. *Journal of Marketing, 57*(1), 81–101.

Narver, J. C., & Slater, S. F. (1990). The effect of a market orientation on business profitability. *Journal of Marketing, 54*(4), 20–35.

Noordhoff, C. S., Kriakopoulos, K., Moorman, C., Pauwels, P., & Dellaert, B. G. C. (2011). The bright side and dark side of embedded ties in business-to-business innovation. *Journal of Marketing, 75*(5), 34–52.

Olsen, E. L., & Bakke, G. (2001). Implementing the lead user method in a high technology firm: a longitudinal study of intentions versus actions. *Journal of Product Innovation Management, 18*(2), 388–395. November.

Pauwels, K., Silva-Risso, J., Srinivasan, S., & Hanssens, D. M. (2004). New products, sales promotions, and firm value: the case of the automobile industry. *Journal of Marketing, 68*(4), 142–156.

Pfeffer, J., & Salancik, G. R. (1978). *The external control of organizations*. New York: Harper and Row.

Porter, M. E. (1985). *Competitive advantage*. New York: The Free Press.

Reibstein, D. J., Day, G., & Wind, J. (2009). Guest editorial: is marketing academia losing its way? *Journal of Marketing, 73*, 1–3. July.

Rindfleisch, A., & Moorman, C. (2001). The acquisition and utilization of information in new product alliances: a strength-of-ties perspective. *Journal of Marketing, 65*(3), 1–18.

Rubera, G., & Kirca, A. H. (2012). Firm innovativeness and its performance outcomes: a meta-analytic review and theoretical integration. *Journal of Marketing, 76*(3), 130–147.

Schumpeter, J. A. (1942). *Capitalism, socialism, and democracy*. New York: Harper.

Sheth, J. N., & Sisodia, R. S. (2005). A dangerous divergence: marketing and society. *Journal of Public Policy & Marketing, 24*(1), 160–162.

Slater, S. F., & Narver, J. C. (1995). Market orientation and the learning organization. *Journal of Marketing, 59*, 63–74. July.

Sood, A., & Tellis, G. J. (2009). Do innovations really pay off? Total stock market returns to innovation. *Marketing Science, 28*(3), 442–456.

Taylor, A., Wagner, K. & Zablit, H. (2012). The most innovative companies 2012. https://www.bcgperspectives.com/content/articles/growth_innovation_the_most_innovative_companies_2012/.

Tellis, G. J., Prabhu, J. C., & Chandy, R. K. (2009). Radical innovation across nations: the preeminence of corporate culture. *Journal of Marketing, 73*(1), 3–23.

Tuli, K. R., Kohli, A. K., & Bharadwaj, S. G. (2007). Rethinking customer solutions: from product bundles to relational processes. *Journal of Marketing, 71*, 1–17. July.

Ulwick, A. (2005). *What customers want: using outcome-driven innovation to create breakthrough products and services*. New York: McGraw Hill.

Vargo, S. L., & Lusch, R. F. (2004). Evolving to a new dominant logic for marketing. *Journal of Marketing, 68*(1), 1–17.

Verhoef, P. C., & Leeflang, P. S. H. (2009). Understanding the marketing department's influence within the firm. *Journal of Marketing, 73*(2), 14–37.

von Hippel, E. (1986). Lead users: a source of novel product concepts. *Management Science, 32*, 791–805.

von Hippel, E. (2005). *Democratizing innovation*. Cambridge: MIT Free Press.

Wiersema, F. (2012). *The B2B Agenda*: *the current state of B2B marketing and a look ahead*. University Park, PA: The Institute for the Study of Business Markets.

Workman, J. P., Jr. (1993). Marketing's limited role in new product development in one computer systems firm. *Journal of Marketing Research, 30*, 405–421. November.