

Creating superior customer value for B2B firms through supplier firm capabilities

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ABSTRACT

In a dynamic global business-to-business (B2B) environment, innovation and marketing appear crucial to providing supplier firms' positional advantage through the ability to create value for customers. Our examination is grounded in seeking to address the research question: To what extent is the creation of superior performance, relationship, and co-creation value driven by market orientation, product innovation and marketing capabilities in B2B firms? The results of a survey of 155 large B2B firms show product innovation capability and marketing capability partially mediates the relationship between a firms' market orientation and its ability to create value (performance and co-creation), except for the role of marketing capability which we found acted as a full mediator of the relationship between market orientation and relationship value.

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1. Introduction

The evolution in marketing thought increasingly suggests that simply being market oriented is not enough to create value and gain marketplace advantages; firms must attempt to deliver two types of value: 1) build relationships with business customers; and 2) collaborate with them (Pralhalad & Ramaswamy, 2000) and to do this they need value creating capabilities. Encouraging these value creating activities may represent the next frontier in advantage seeking behaviors (Bendapudi & Leone, 2003; O'Cass & Ngo, 2011), especially in the B2B environment. Such outcomes may represent specific types of value customers are looking for and can help the firm understand their customers, and better identify their needs (Lusch & Vargo, 2006; Payne, Storbacka, & Frow, 2008). However, while focusing on these two increasingly important value creating activities we cannot neglect the importance of delivering to customers' superior performance value in the core product.

Importantly, the path to achieving marketplace advantages is through developing and commercializing value offerings (Lindgreen & Wynstra, 2005) which are delivered via specific capabilities such as product innovation and marketing. Given the existing theoretical foundations and practical issues confronting B2B firms (Lindgreen & Wynstra, 2005), an area that warrants attention is the level of emphasis firms place on marketing and product innovation in their effort to

create superior customer value for their business customers. Firms may attempt to enhance customer value and competitive advantage through superiority in marketing and/or product innovation, but a lack of understanding and control over these functions has the potential to create inferior capabilities in these areas which may weaken the ability to create superior value over rivals.

A critical issue facing managers is in deciding the competitive means to achieve superiority in the delivery of customer value in B2B markets. To address this issue we adopt the view that three specific capabilities which provide important benefits are essential. The first capability involves stimulating product renewal and change (Berry, Sweeting, & Goto, 2006; Damanpour, Walker, & Avellaneda, 2009; Ostrom, Bitner, Brown, & Burkhard, 2010; Song, Song, & Di Benedetto, 2009) through the development and application of the firm's product innovation capability. Most executives would support the view that innovation is the key to growth in increasingly competitive business environments. Innovative firms have historically dominated their industries (Chandrashekar, Mehta, Chandrashekar, & Grewal, 1999; Marinova, 2004). The capability to innovate helps to constantly align the firm with changing market needs in the effort to capitalize on opportunities. Product innovation capability represents an ability to develop new solutions to satisfy customers' current and future needs (Adler & Shenbar, 1990). Building on Abell, Felin, and Foss's (2008) approach to capabilities, product innovation capability is defined here as the routines and processes firms have in place for undertaking innovation related activities in areas such as developing new products, extending product ranges, improving existing product quality, improving production flexibility and exploiting the most-up-to-date technologies. Firms with superior innovation capability employ a learning-by-doing effect, and it is extremely

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hard for rivals to duplicate this know-how in the market (Cavusgil, Calantone, & Zhao, 2003). We argue that product innovation capability is important in the effort to create superior performance value, co-creation value and relationship value. This is evidenced when one considers that markets are increasingly characterized by shorter product life cycles, more dramatic changes in customer's preferences and a tendency for customers to seek newer products.

The second capability involves effectively marketing the offering. Many firms devote significant effort to marketing to protect their customer base (Berry, 2002) and build their product, company reputation and build brand success (Ngo & O'Cass, 2010). Marketing capability is defined here as the routines and processes deployed to engage in marketing activities in areas such as pricing, product distribution, marketing communication, selling, and marketing planning. Since marketing processes are often firm specific (Day, 1994), a unique marketing capability is developed as marketing knowledge and skills are combined to execute marketing actions (Vorhies & Morgan, 2005). Thus, marketing capability is difficult for competitors to imitate and cannot be easily substituted because of the idiosyncratic way firms' integrate their knowledge about markets and marketing. Hence, it is suggested that firms with superior marketing capability can develop and maintain better pricing, distribution, selling, marketing communication, marketing information and marketing planning (Morgan, Vorhies, & Mason, 2009; Vorhies & Morgan, 2005; Vorhies, Morgan, & Autry, 2009), providing them the opportunity to create superior performance, relationship and co-creation value and communicate this to customers.

Successful firms cannot, and do not rely just on their product innovation capability when striving for superior performance. Instead they conduct product innovation and marketing activities simultaneously. While product innovation enables the creation of the customer base because the innovation creates value, marketing helps to protect this valuable asset (and appropriate the value back for the firm) (Berry, 2002; Berthon, Hulbert, & Pitt, 1999). In addition, the commercialization of an innovation requires complementary downstream capabilities such as marketing (Hill & Rothaermel, 2003; Teece, 1986).

The third capability involves market sensing which helps leverage product innovation and marketing capabilities to achieve superior value creation (Ostrom et al., 2010). We believe that undertaking market oriented behaviors is of paramount importance because of the greater necessity of direct firm-customer interactions in B2B markets. The behavioral approach to market orientation (MO) views it as the generation, dissemination and responsiveness to market intelligence (Kohli & Jaworski, 1990; Morgan et al., 2009). In this sense MO provides firms with market-sensing capabilities that should lead to the development and deployment of superior value creating capabilities (innovation and marketing) that provide the mechanism for value creation for customers (Day, 1994; Hult & Ketchen, 2001; Kirca, Jayachandran, & Bearden, 2005). Remarkably, these fundamental linkages between the firms' product innovation and marketing capabilities, and its market sensing capabilities (e.g., MO) and value creation outputs have not been addressed in any empirical study to date.

In this paper, we propose an important theoretical conjecture. We believe that marketing capability and product innovation capability are primary market-linking capabilities that help realize the value of market-sensing capability (MO) in the effort to create three forms of value (e.g., performance, relationship and co-creation value).

Our paper proceeds as follows: First, we explain the underpinnings of our theoretical contentions, and develop specific hypotheses focusing on the relationships between MO, product innovation and marketing capabilities and value creation in the form of performance, relationship and co-creation value. Subsequently, we discuss the research procedures used to gather the data to test the hypotheses. Next, we present the analytical procedures and results. The final

section discusses the findings, contributions and implications of the study and outlines future research.

2. Theoretical background and hypotheses development

2.1. Essential components of value creation

In designing its value offering, the B2B firm needs to give significant attention to interpreting and responding to what value it perceives customers are looking for. By doing this better than competitors, the firm can obtain an advantage (e.g., Slater, 1997; Woodruff, 1997) through the delivery of superior value. Indeed, Day and Wensley (1988, p.2) argue that superior performance requires a firm to achieve "positional superiority based on the provision of superior customer value". The key task for managers then, is to decide how to gain such advantages (through offering specific types of value in the value proposition), especially those that distinguish their offering from competitors (Day & Wensley, 1988; Hult & Ketchen, 2001).

DeSarbo, Jedidi, and Sinha (2001) argue that creating superior value is a strategic issue that should be of interest to researchers and practitioners because of the economic consequences for firms. A strategic approach to value creation has been emphasized by Payne and Holt (2001) who indicate that value creation is part of the strategic process. We theorize that in a strategic sense the value offering is a supplier firm's interpretation of and responsiveness to business customer requirements via the delivery of superior performance in its value offering mix of performance value, relationship building value, and co-creation value. A closer look at the extant literature indicates that value creation from the firm perspective operates at the level of positional advantage and thus we embed our theory in the work of Day and Wensley (1988), Day and Wan den Bulte (2002), and Hult and Ketchen (2001). Theoretically and practically, a key task then for managers is to decide what positional advantages (components of a value offering) distinguish their businesses in the marketplace, premised on what value customers are looking for (O'Cass & Ngo, 2011).

We argue that designing a value offering that matches customers' expectations provides the means to gain a marketplace advantage. While the basis for a firm's value offering can be quite extensive and may cover many types of value, the focus here is on three types of value (performance value, co-creation value and relationship value). Essentially, customers may look for superior value in various aspects of the offering but we limit our attention to these three types. Customers can seek performance value via superior product performance (Mittal & Kamakura, 2001), relationship value via close customer-firm relationships (Ravald & Gronroos, 1996; Ulaga & Eggert, 2006) and co-creation value through working to co-create the product (DeSarbo et al., 2001; Payne et al., 2008; Prahalad & Ramaswamy, 2004; Ramirez, 1999).

Day and Wan den Bulte (2002) indicate that positional advantage consists of both product advantage and relational advantage, and in this sense O'Cass and Ngo (2011) indicate firms should attempt to achieve a mixture of both types of advantage to yield a superior positional advantage. Product advantage can be obtained via product performance superiority with products that have innovative features, high quality, and meet customers' needs better (Kroll, Wright, & Heiens, 1999; Mittal & Kamakura, 2001), while relational advantage can be built upon developing and nurturing customer relationships (Dyer & Singh, 1998; Ravald & Gronroos, 1996). Drawing upon positional advantage theory, we argue that designing a value offering that matches customers' expectations provides the means for supplier firms to achieve positional advantage. In particular, firms need to understand customer expectations and transform these expectations into a bundle of value deliverables in the form of product advantage (product performance value) and relational advantage (relationship and co-creation value).

Recent literature on customer-firm relationship building and firm-customer co-creation has focused on the merits of increasing the extent of active customer engagement and participation in the creation and delivery of offerings. In most cases, the literature unequivocally supports increasing opportunities for relationship building and co-creation between the firm and its customers as a means to achieve relational advantage (e.g., Ngo & O'Cass, 2009, 2010; O'Cass & Ngo, 2011; Prahalad & Ramaswamy, 2004). To this end relationship building and co-creation have become central tenets in marketing. However, our focus here is not on relationship building and co-creation activities (capabilities) per se. We focus on relationship value and co-creation value, which are seen here as two outcomes or types of value firms seek to offer customers.

The shift toward relationship building and co-creation value as a means to enhance customers' perceptions of the value a firm delivers seems entirely reasonable. This is particularly so given the growing emphasis on customers creating value *with* the firm, as opposed to the firm creating value *for* customers (Lengnick-Hall, 1996; Prahalad & Ramaswamy, 2004; Vargo & Lusch, 2004). This emphasis appears consistent with a market-oriented organization and is now firmly embedded within a growing body of work (DeSarbo et al., 2001; Prahalad & Ramaswamy, 2000; Ramirez, 1999). In reality in many markets, firms may find that they have no choice but to build relationships and also embrace co-creation to develop and deliver their offerings, this is so in many B2B markets.

Co-creation value requires a shift to a customer-centric business model, through which customer preferences can be expressed in real time and offerings customized accordingly. The personal interface between the customer and the firm thus represents a critical component of a product delivery process in which the customer has direct input into the production of the final product. Many B2B firms are defined by a high degree of coupling and interdependence with their customers. To the extent that relationship building and co-creation proves desirable for a firm, the firm must have a greater appreciation of its own facilitating factors (e.g., product innovation and marketing). In this sense product innovation and marketing have the capacity to deliver to firms' superiority in terms of the value embedded in product performance, relationship building and co-creation of the product with customers as key value components.

2.2. Market orientation and value creation

Market-oriented firms place the highest priority on creating superior customer value (Slater & Narver, 1995). At the operational level, firms need MO to generate, disseminate, and respond to market intelligence (Jaworski & Kohli, 1993; Zhou, Li, Zhou, & Su, 2008). We contend that while possessing a market orientation is imperative, it is not sufficient to create superior value. Customers do not purchase a firm's offering simply because it possesses a MO, instead they are attracted by and stay with firms that are able to act on the developed knowledge about customers' needs to serve them better (Zhou, Yim, & Tse, 2005) through delivering greater value. In this sense the customer is the final arbiter of value in both the type of value being sought and the level. To this end the firms understanding of its market and the value being sought is the key to its strategic choices related to gaining positional advantages based on creating specific types of value. In such efforts, MO acting as the market-sensing capability provides the knowledge structure to enhance the recognition of market dynamism and the knowledge base to develop the required capabilities to link the firm more deeply with its markets and assists it to create superior value. As such, the unique contribution of MO is that it provides to firms a rare, valuable, and inimitable knowledge base, which will be lessened with the absence of specific deployment capabilities (Menguc & Auh, 2006; Morgan et al., 2009). A more market-oriented firm is able to identify and deploy distinctive capabilities more efficiently than others who are less market-oriented.

Given that a market-oriented firm places its emphasis on understanding the needs of its customers (Jaworski & Kohli, 1993; Slater & Narver, 1999), it needs also possess capabilities to fulfill identified needs. In this context, we see marketing and product innovation capabilities as distinctive capabilities that require alignment with (or the impetus from) – MO for firms to achieve superior value creation (Ritter & Gemunden, 2004; Verona & Ravasi, 2003). As such, MO requires specific mechanisms to ensure the full potential of being market oriented is achieved. In this sense, there appear two key “transformation actions” that help realize the value of MO. The first is product innovation capabilities. With a strong commitment to serving its customers, a market-oriented firm is willing to direct the resources necessary to fulfill customers' latent needs through developing product innovation capabilities (Atuahene-Gima, 1996; Han, Kim, & Srivastava, 1998; Zhou et al., 2005). The second is marketing, where a strong market orientation should be reflected in higher marketing capability (Dutta, Narasimhan, & Rajiv, 1999) to link more strongly with customers. MO ensures better development of market-linking capabilities via marketing and product innovation. This is so because MO provides knowledge about the market upon which firms can develop appropriate marketing and product innovation practices to link the firm to its customers. In this sense, MO provides the firm with a significant driver in inducing market-linking capabilities.

Therefore, to be effective, MO must manifest in firms' specific market linking capabilities that help create and deliver value to customers. In the context of our model (Fig. 1), we see MO as being set within a socially complex system of organizational routines that have the potential to create greater causal ambiguity. Therefore, MO will have more value and exhibit greater rarity and inimitability when working through specific sets capabilities embedded within firms, then in its isolated form (see also Amit & Schoemaker, 1993; Teece, Pisano, & Shuen, 1997 for arguments on MO and capabilities).

Taking the above contentions and drawing on the resources-actions-performance framework suggested by Ketchen, Hult, and Slater (2007), we propose a theoretical framework (see Fig. 1) that focuses on the actions-performance linkages by integrating product innovation capability, marketing capability, MO (as a market sensing capability), and three types of value firms can offer the market.

2.3. The mediational roles of product innovation and marketing capabilities

Being oriented towards its markets provides a firm with a source of ideas for change and improvement (Hurley & Hult, 1998), which with the appropriate capabilities result in superior value creation. We believe that a more market-oriented firm is able to identify and deploy distinctive capability sets more effectively than less market oriented and this view provides the basis on which to focus on the mediational role of capabilities which has not been explored in the MO-value creation context. We contend that firm capabilities (especially product innovation and marketing) mediate the MO-value creation relationship. The implementation of market orientation requires a high degree of product innovation and marketing capability in firms. Our theoretical contention implies that the relationship between the level of MO in firms and corresponding value creation will be mediated via specific capabilities, especially product innovation and marketing. Specifically, the relatively unique features of the firms offering requires that firms implement a market orientation to ensure a greater sensing ability because of the need to use product innovation and marketing to target smaller customer segments, create and communicate the features of the offering and customize offerings which makes product innovation and marketing significant competitive capabilities. This view is noteworthy because Kirca et al. (2005) indicate that MO might be more integral to some firms because of the greater necessity of direct firm-customer interactions. This is

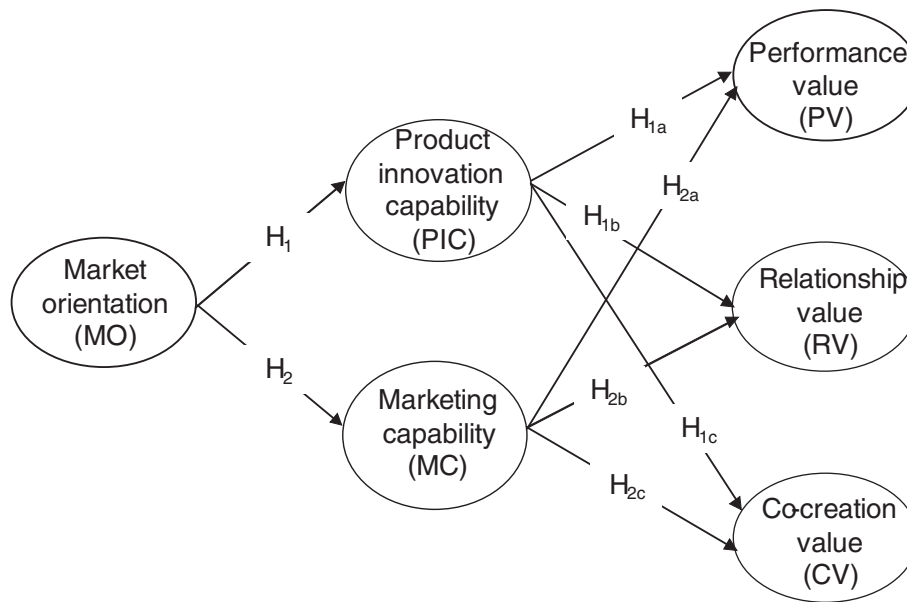


Fig. 1. Theoretical framework integrating actions–performance linkages between product innovation and marketing capability, MO, and value creation in B2B firms.

especially the case in B2B and therefore, MO could be viewed as a failure-prevention approach (a “hygiene” factor) in B2B firms and the mechanism that drives the development of capabilities that create value in the B2B firms' chosen markets.

The key for firms therefore, is to develop and deploy specific capabilities that assist in the creation of superior value for customers. A capability is an ability to create value for customers (Teece et al., 1997) and is embedded within certain productive activities within firms. It is understood that firms may need to acquire a wide range of capabilities to create superior value for customers given there are a wide arrange of different types of value (see Ngo & O'Cass, 2009). However, Möller (2006) suggests that with increasing competition and the scale of business operations firms are forced to specialize in a narrowing set of core value-creating capabilities. Drawing on this insight, this study argues that in the context of B2B, product innovation capability is a core value-creating capability that enables the consistent creation of superior value for business customers. Product innovation capability is seen within the confines of the routines and processes B2B firms have in place for implementing the development, evolution, and execution of new products or product improvements.

A firm's ability to renew market offers is critical, especially in creating superior B2B customer value. In this context, product innovation capability and the value offering are closely associated. Product innovation provides the platform to enable B2B firms to provide new performance attributes (these can be encapsulated within the notion of core product performance, relationship and co-creation as performance in this sense represents what the customer is seeking from the offering) that fulfill key customer needs better than existing offerings. Importantly, innovation enables firms to continuously create advances in their value offerings. Therefore, it is suggested that firms with superior product innovation capability can continuously develop leading edge positions to not only satisfy the current customer needs, but also create value that goes beyond the expectations of customers (Ngo & O'Cass, 2009). Within the context of B2B, this implies that product innovation capability is a key driver in renewing the value offering.

We adopt the view that MO precedes a firms' product innovation capability, and in this sense the present study concurs with the views of Hurley and Hult (1998) and Hult, Hurley, and Knight (2004) in relation to the role of MO and innovation. We propose

that innovation-capable firms driven by a higher degree of MO place greater effort into developing, and implementing market sensing to enhance their innovation capabilities in their effort to create performance value, relationships value and co-creation value. Thus,

H1. Product innovation capability mediates the relationships between market orientation and (a) performance value, (b) relationship value, and (c) co-creation value

Customer choice is influenced by what they (customers) think is valuable (e.g., DeSarbo, Di Benedetto, & Song, 2007; Sirmon, Hitt, & Ireland, 2007), and different customers may conclude differently about what is valuable, depending on their levels of knowledge about the competitive offerings available (Lepak, Smith, & Taylor, 2007), their experience in consuming the offerings. The conclusions drawn by customers in relation to value will also depend heavily on the firms associated marketing of the value offering. Given that value is suggested to result from an evaluation of the trade-off between the relative rewards and sacrifices associated with the offering marketing has a role to play in ensuring congruency between these evaluations. In the B2B context this would result in the business customers' perception of value regulating their firm's behavioral intentions such as loyalty toward the supplier as long as such exchanges offer superior value.

Given the preceding discussion this study argues that the role of marketing capability becomes critical in positioning the value offering (e.g., communicating value) to business customers. This claim is also supported by the view that customer value is the fundamental basis for all marketing activities (Holbrook, 1994). When the firms' marketing helps formulate and communicate realistic expectations of the value offering in the pre-purchase stage, it assists in creating positive reactions during consumption. Hence, it is important for marketing to create and deliver realistic expectations of the value offerings to ensure the correct type and level of value is offered and perceived by customers.

Two interrelated marketing capability domains have been identified: capabilities concerning individual ‘marketing mix’ processes, (e.g., Vorhies & Morgan, 2005), and capabilities concerned with the processes of marketing strategy development and execution (e.g., Morgan, Zou, Vorhies, & Katsikeas, 2003). We focus here on the marketing mix capability which enables a firm to effectively compete in

Table 1
Measures of model constructs and scale psychometric properties.

Constructs and manifest variables	Loading
Market Orientation (MO) ^a AVE = .57 Composite Reliability = .92	
Intelligence Generation (IG) AVE = .68 Composite Reliability = .84	
MO1 We generate information about our customers (e.g., feedback on delivered products and/or services, needs, product/service preferences).	0.70
MO2 We generate information about our competitors (e.g., competitive products and/or services, pricing, promotion campaigns, strategic moves).	0.84
MO3 We generate information about our suppliers (e.g., manufacturing process, industry practices, clientele).	0.85
Intelligence Dissemination (ID) AVE = .72 Composite Reliability = 0.89	
MO4 We disseminate information about customers (e.g., feedback on delivered products and/or services, needs, product/service preferences) throughout the business using a range of communication tools (e.g., circulated documents, cross-functional meetings).	0.81
MO5 We disseminate information about competitors (e.g., competitive products and/or services, pricing, promotion campaigns, strategic moves, etc.) throughout the business using a range of communication tools (e.g., circulated documents, cross-functional meetings).	0.88
MO6 We disseminate information about suppliers (e.g., manufacturing process, industry practices, clientele, etc.) throughout the business using a range of communication tools (e.g., circulated documents, cross-functional meetings).	0.86
Responsiveness (RESP) AVE = .68 Composite Reliability = .87	
MO7 We respond to information about customers that we have generated and disseminated.	0.79
MO8 We respond to information about competitors that we have generated and disseminated.	0.87
MO9 We respond to information about suppliers that we have generated and disseminated.	0.83
Product innovation capability (IC) ^b AVE = .51 Composite Reliability = .84	
IC1 Our product innovations have been	0.84
IC2 Our production process innovations have been	0.69
IC3 Our range of new products has been	0.62
IC4 Our improvement of production system flexibility has been	0.69
IC5 Our improvement of product quality has been	0.67
Marketing capability (SMC) ^b AVE = .55 Composite Reliability = .88	
MC1 Our incorporation of customer needs into marketing of products and services has been	0.71
MC2 Our pricing programs have been	0.71
MC3 Our distribution systems have been	0.74
MC4 Our marketing communication programs have been	0.70
MC5 Our marketing planning skills have been	0.77
MC6 Our implementation of marketing activities has been	0.81
Performance value (PV) ^a AVE = .66 Composite Reliability = .91	
PV1 We ensure customers' personal preferences are satisfied	0.79
PV2 We deliver quality products .	0.77
PV3 We deliver products that are exactly what customers want	0.86
PV4 We deliver products that exceed customers' expectations	0.85
PV5 We deliver products with innovative performance features.	0.77
Relationship value (RV) ^a AVE = .62 Composite Reliability = .89	
RV1 We ensure that customers have easy access to the business at any time	0.81
RV2	0.79

Table 1 (continued)

Constructs and manifest variables	Loading
RV3 We ensure rapid response standards to deal with any customer enquiry.	0.82
RV4 We have continuing relationships with customers	0.76
RV5 We deliver add-on values (special offers, status recognition) to keep customers.	0.75
We maintain long term relationships with our customers.	
Co-creation value (CV) ^a AVE = .69 Composite Reliability = .93	
CV1 We interact with customers to serve them better	0.71
CV2 We work together with customers to produce offerings that mobilize them.	0.88
CV3 We interact with customers to design offerings that meet their needs.	0.89
CV4 We provide products for and in conjunction with customers.	0.85
CV5 We co-opt customer involvement in providing products for them.	0.88
CV6 We provide customers with supporting systems to help them get more value.	0.77

^a 7-point scale 1 = strongly disagree and 7 = strongly agree.

^b 1 = much worse than competitors and 7 = much better than competitors.

its chosen markets in areas such as offering (product), pricing, channel management, marketing communications, and marketing planning, (Morgan et al., 2009; Song, Hanvanich, & Calantone, 2005). Firms possessing higher levels of MO are more likely to develop superior marketing capabilities and as such, are more likely to achieve superior performance in relation to their ability to create value in the value offering (performance value), relationship value and co-creation value with customers. Thus,

H2. Marketing capability mediates the relationships between market orientation and (a) performance value, (b) relationship value, and (c) co-creation value

3. Research method

3.1. Sampling and data collection

We used the data drawn from a survey of B2B firms in Australia. Although the selection of the Australian sample was based primarily on convenience, we recognize that generally research has considered customer value and the implications of supplier firm capabilities in the US context. In this context, Australia was selected as an example of a developed economy outside the US. Australia has been ranked 16th overall in the world's most competitive economies according to The Global Competitiveness Report 2010–2011. Specifically, 1000 large firms (more than 50 full-time employees) with contact details of senior-level executives were drawn randomly from a purchased commercial mailing list of firms operating in 20 different two-digit Standard Industrial Classification code industries (20, 30 and 40). We contacted each respondent in the sample via email and asked them to fill out an online survey. Respondents were also questioned about their knowledge of the market intelligence, product innovation and marketing activities of their firm to ensure they were suitable respondents and asked about their confidence to complete the survey. A reminder email was sent one week after the first one. Non-response bias did not appear to be a major concern as we found no significant differences between those firms who responded early and those who responded late with respect to key measures. Following the procedures suggested by Armstrong and Overton (1977), we found that chi-square tests show no significant differences between those firms who responded early and those who responded late with respect to key measures at the 5 percent significance level. Therefore, we believe that non-response bias did not appear to be a major concern.

We received 155 useable surveys were received, producing a response rate of 15.5%. The sample consisted of 74.2% of firms operating within the domestic market, 25.8% in international markets. The firms range in size, in terms of people employed fulltime, ranged from a minimum of 50 employees to a maximum of 35,520 employees (median = 2278 employees). 64.5% of respondents are marketing managers, 35.5% are non-marketing managers. The analysis also indicated that administrative and support services firms accounted for 29% of the respondents, transport, postal and warehousing 23.2%, information media and telecommunications 16.8%, financial and insurance services 11%, sales trade 8.4%, accommodation and food 7.1%, and others 4.5%.

3.2. Measurement of key model constructs

We selected measures of the key model constructs on the basis of a review of the extant literature on market orientation, innovation capability, marketing capability, performance value, relationship value, and co-creation value (Aragón-Currea, Carcia-Morales, & Córdón-Pozo, 2007; Atuahene-Gima, 1993; Chiesa, Coughlan, & Voss, 1996; Jaworski & Kohli, 1993; Ngo & O'Cass, 2009; Vorhies & Morgan, 2005; Weerawardena & O'Cass, 2004). Table 1 shows all the items used to measure each construct along with primary psychometric properties.

3.2.1. Market orientation

Our conceptualization of market orientation was based on the behavioral perspective (Jaworski & Kohli, 1993). Drawing upon previous studies by Jaworski & Kohli (1993) and Matsuno and Mentzer (2000), we used nine items to measure market orientation. The respondents assessed nine items on a seven-point Likert scale with anchors of 'strongly disagree' and 'strongly agree'.

3.2.2. Product innovation capability

The scales for measuring product innovation capability were based on previous studies by Aragón-Currea et al. (2007), Chiesa et al. (1996) and Weerawardena and O'Cass (2004). Specifically, we used five items to measure product innovation capability as shown in Table 1. All items were rated on a seven-point scale with 'much worse than competitors' and 'much better than competitors' anchors.

3.2.3. Marketing capability

We measured marketing capability using six items adapted from Atuahene-Gima (1993) and Vorhies and Morgan (2005). All items were rated on a seven-point scale with 'much worse than competitors' and 'much better than competitors' anchors.

3.2.4. Value-based performance

The scales for measuring performance value, relationship value, and co-creation value were based on Ngo and O'Cass (2009). Seven-point scales were used with 'strongly disagree' and 'strongly agree' anchors for all value-based performance indicators.

3.2.5. Control variables

We included firm size and market type as controls. Firm size is the logarithm of the number of full-time employees. We coded market type as a dummy variable, such that export firms were coded as '1' and domestic firms as '0'.

To check the content validity of the measures, we followed the pretest and pilot test procedure outlined by Hult et al. (2004) we used twelve academics and ten marketing executives and a pilot study of 30 marketing executives to assess the quality of the measures and the research design. We asked the academics and executives as expert judges in the marketing discipline to evaluate the representativeness of items to their corresponding constructs. The judges were provided with the conceptual definitions of the focal constructs with corresponding items and a set of instructions for judging. This procedure has also been suggested by Lichtenstein, Netemeyer, and Burton (1990), and Obermiller and Spangenberg (1998). At the conclusion of the process of pretest and pilot test we found that items presented in Table 1 are representative to their constructs, providing evidence of satisfactory content validity.

3.3. Measurement reliability and validity

3.3.1. Convergent validity

Table 1 reports the measures of key constructs and primary psychometric properties. Specifically, we used individual indicator loadings, composite reliability, and AVE to assess the adequacy of outer-measurement models. As shown in Table 1, all indicator loadings are greater than the recommended 0.5 (Hulland, 1999), thus demonstrating satisfactory explanatory-power to the measurement models of the key model constructs. In addition, all composite reliabilities, ranging from 0.84 to 0.93, were above the threshold of 0.70 (Nunnally, 1978). Average variance extracted (AVE) values for all constructs, ranging from 0.55 to 0.72, were above 0.50. These findings demonstrate adequate convergent validity of the outer-measurement models.

3.3.2. Discriminant validity

We assessed the discriminant validity of the key constructs following procedures outlined by Fornell and Larcker (1981). As shown in Table 2, the square roots of the AVE values are consistently greater than all corresponding correlations, thus demonstrating discriminant validity. In addition, discriminant validity is evident when the correlation between two constructs (the off-diagonal entries) is not higher than their respective reliability estimates (Gaski & Nevin, 1985; O'Cass & Ngo, 2007). Table 2 demonstrates that no individual correlations (from 0.34 to 0.68) were higher than their respective reliabilities (0.88 to 0.93), thus indicating satisfactory discriminant validity of all constructs.

3.3.3. Common method variance

As we collected cross-sectional data using a single-source method, there might be common method bias effects that lead to spurious relationships among the variables (Podsakoff, MacKenzie, Podsakoff, &

Table 2
Discriminant validity and tests of differences between correlations.

Constructs	1	2	3	4	5	6
Discriminant validity						
1. Market orientation (MO)	0.75 (0.92)					
2. Product innovation capability (PIC)	0.48	0.78 (0.89)				
3. Marketing capability (MC)	0.62	0.68	0.74 (0.88)			
4. Performance value (PV)	0.42	0.49	0.54	0.81 (0.91)		
5. Relationship value (RV)	0.34	0.34	0.46	0.64	0.79 (0.89)	
6. Co-creation value (CV)	0.34	0.43	0.38	0.56	0.62	0.83 (0.93)

Note: Bold diagonal entries are square root of AVE and composite reliabilities in bracket; others are correlation coefficients.

Lee, 2003). We assess common method bias by conducting a Harman's single-factor test. We found that no single factor accounted for the majority of the variance (the first factor accounted for 31.9% of the 73.2% explained variance). We also used the marker-variable technique recommended by Lindell and Whitney (2001) and Maholtra, Kim, and Patil (2006). In particular, we selected market type (export versus domestic) as a marker variable to control for common method variance ($r_M = 0.04$, $p = 0.66$). The mean change in correlations of the five key constructs ($r_U - r_A$) when partialling out the effect of r_M was 0.02, providing no evidence of common method bias.

4. Research findings

We used Partial Least Squares (PLS), specifically PLS-GRAPH v.3.00 to assess the predictive relevance of the conceptual model, and thereby test the hypothesized relationships as depicted in Fig. 1. We chose PLS for several reasons. First, PLS involves no restrictive assumptions about the population or scale of measurement (Wold, 1982), thus the randomness of the sample and the normality of the distribution of variables are not required (Fornell & Bookstein, 1982, p.443). Preliminary analysis of this study indicated that some indicators were not normally distributed and as such PLS is appropriate for use in this situation. Second, PLS is appropriate when the sample size is small as each causal subsystem sequence of paths is estimated separately (Anderson & Gerbing, 1988). A sample of 155 usable responses (is considered small to moderate) in this study is sufficient for the analysis using PLS. Third, as PLS focuses on the explanation of variance using ordinal least squares, this technique is better suited for the investigation of complex relationships in a predictive rather than a confirmatory fashion (Fornell & Bookstein, 1982). In this study the primary concern is with maximizing the prediction of dependent endogenous constructs including value-based performance. Finally, PLS has been widely used in the marketing literature (see Eggert, Ulaga, & Schultz, 2006; Sakar, Echambadi, & Harrison, 2001; Slotegraaf & Dickson, 2004), especially in studies testing complex relationships and mediation effects (Nakata, Zhu, & Izberk-Bilgin, 2011; Slotegraaf & Atuahene-Gima, 2011). PLS is particularly well suited to the study

of mediation, because the mediation effect is the product of two relationships; between the independent variable and the mediator, and between the mediator and the dependent variable. In this context the product of two normally distributed variables is always skewed (Bollen & Stine, 1990; Bontis, Booker, & Serenko, 2007).

4.1. Structural models and hypothesis testing

In hypotheses 1a, 1b, 1c, 2a, 2b, and 2c, product innovation capability and marketing capability were predicted to mediate the relationships between MO and performance value, relationship value, and co-creation value. To test these hypotheses, we followed the procedures suggested by Baron and Kenny's (1986) and estimated nine models. To test hypothesis 1a, which predicts that product innovation capability mediates the effect of MO on performance value, Model 1 and Model 2 were developed. As shown in Table 3, MO positively influences performance value (Model 1, $\beta = 0.44$ t-value = 7.17) and product innovation capability (Model 2, $\beta = 0.48$ t-value = 6.49), which also positively influences performance value (Model 2, $\beta = 0.38$ t-value = 4.87). Comparing Models 1 and 2, we found that the positive effect of MO on performance value in Model 1 becomes weaker in Model 2 ($\beta = 0.44$ vs. $\beta = 0.25$). Thus, product innovation capability partially mediates the relationship between MO and performance value.

To test hypothesis 1b, which predicts that product innovation capability mediates the effect of MO on relationship value, we developed and compared Model 3 and Model 4. As shown in Table 3, MO positively influences relationship value (Model 3, $\beta = 0.35$ t-value = 4.77) and product innovation capability (Model 4, $\beta = 0.48$ t-value = 6.92), which also positively influences relationship value (Model 4, $\beta = 0.22$ t-value = 2.35). Comparing Models 3 and 4, we found that the positive effect of MO on relationship value in Model 3 becomes weaker in Model 4 ($\beta = 0.35$ vs. $\beta = 0.24$). Thus, product innovation capability partially mediates the relationship between MO and relationship value.

Similar to testing hypotheses 1a and 1b, we developed and compared Model 5 and Model 6 to test the mediation effect of product innovation capability on the co-creation value. As shown in Table 3,

Table 3
Hypothesis 1 and 2: structural equation parameter estimates (t-value).

Independent variables	Endogenous variables															
	Hypothesis 1a			Hypothesis 1b			Hypothesis 1c			Hypothesis 2a		Hypothesis 2b		Hypothesis 2c		
	Model 1		Model 2	Model 3		Model 4	Model 5		Model 6	Model 7		Model 8		Model 9		
	PV	PIC	PV	RV	PIC	RV	CV	PIC	CV	MC	PV	MC	RV	MC	CV	
MO	0.44** (7.17)	0.48** (6.49)	0.25** (2.99)	0.35** (4.77)	0.48** (6.92)	0.24** (2.87)	0.36** (4.84)	0.48** (7.61)	0.20** (2.22)	0.62* (11.81)	0.19* (1.80)	0.62* (12.17)	0.14 (1.30)	0.62** (11.55)	0.23** (2.19)	
PIC	–	–	0.38** (4.87)	–	–	0.22** (2.35)	–	–	0.33** (3.51)	–	–	–	–	–	–	
MC	–	–	–	–	–	–	–	–	–	–	0.40** (3.65)	–	0.34* (3.28)	–	0.21* (1.94)	
Controls																
Firm size (log)	0.15** (2.20)	–	0.15** (2.27)	0.08 (1.02)	–	0.08 (1.05)	0.17** (2.21)	–	0.17** (2.60)	–	0.14** (2.14)	–	0.06 (0.82)	–	0.16** (2.28)	
Market type (1 = export)	0.05 (0.64)	–	0.05 (0.62)	0.02 (0.20)	–	0.02 (0.18)	0.12 (1.61)	–	0.12 (1.79)	–	0.06 (0.82)	–	0.01 (0.08)	–	0.12 (1.59)	
R-square	0.20	0.23	0.31	0.12	0.23	0.16	0.15	0.23	0.24	0.38	0.30	0.38	0.19	0.38	0.18	
Sobel t-Test							Test of increases in R ² (ΔR^2) of performance value, relationship value, and co-creation value									
<ul style="list-style-type: none"> • Hypothesis 1a: SE_{indirect effect} = 0.047; z-score = 3.85, p < 0.01 • Hypothesis 1b: SE_{indirect effect} = 0.048; z-score = 2.21, p < 0.01 • Hypothesis 1c: SE_{indirect effect} = 0.050; z-score = 3.14, p < 0.01 • Hypothesis 2a: SE_{indirect effect} = 0.071; z-score = 3.47, p < 0.01 • Hypothesis 2b: SE_{indirect effect} = 0.066; z-score = 3.18, p < 0.01 • Hypothesis 2c: SE_{indirect effect} = 0.068; z-score = 1.92, p < 0.01 							<ul style="list-style-type: none"> • $\Delta R^2_{Model\ 1-2} = 0.11^*$ ($F_{Model\ 1-2, 1, 152} = 24.23 > F_{critical} = 3.84$) • $\Delta R^2_{Model\ 3-4} = 0.04^*$ ($F_{Model\ 3-4, 1, 152} = 7.24 > F_{critical} = 3.84$) • $\Delta R^2_{Model\ 5-6} = 0.09^*$ ($F_{Model\ 5-6, 1, 152} = 18.00 > F_{critical} = 3.84$) • $\Delta R^2_{Model\ 1-7} = 0.10^*$ ($F_{Model\ 1-7, 1, 152} = 21.71 > F_{critical} = 3.84$) • $\Delta R^2_{Model\ 3-8} = 0.07^*$ ($F_{Model\ 3-8, 1, 152} = 13.14 > F_{critical} = 3.84$) • $\Delta R^2_{Model\ 5-9} = 0.03^*$ ($F_{Model\ 5-9, 1, 152} = 5.56 > F_{critical} = 3.84$) 									

Notes: MO = market orientation, MC = marketing capability, PIC = Product innovation capability, PV = performance value, RV = relationship value, CV = co-creation value, * $p < 0.01$, ** $p < 0.05$

both MO and product innovation capability positively influences co-creation value (Model 5, $\beta = 0.36$ t-value = 4.84; Model 6, $\beta = 0.33$ t-value = 3.51, respectively). MO also has a positive effect on product innovation capability (Model 6, $\beta = 0.48$ t-value = 7.61). Comparing Models 5 and 6, we found that the positive effect of MO on co-creation value in Model 5 becomes weaker in Model 6 ($\beta = 0.36$ vs. $\beta = 0.20$). Thus, product innovation capability partially mediates the relationship between MO and co-creation value.

To test hypothesis 2a, which predicts that marketing capability mediates the effect of MO on performance value, we developed Model 7 and compared it to Model 1. As shown in Table 3, MO positively influences marketing capability (Model 7, $\beta = 0.62$ t-value = 11.81), which has a positive effect on performance value (Model 7, $\beta = 0.40$ t-value = 3.65). Comparing Model 1 and Model 7, we found that the positive effect of MO on performance value in Model 1 becomes weaker in Model 7 ($\beta = 0.44$ vs. $\beta = 0.19$). Thus, marketing capability partially mediates the relationship between MO and performance value.

Similar to testing hypothesis 2a, we developed Model 8 and Model 9 and compared them to Model 3 and Model 5, respectively to test hypotheses 2b and 2c. Comparing Model 8 and Model 3, we found that the positive effect of MO on relationship value in Model 3 become insignificant in Model 8 ($\beta = 0.35$ vs. $\beta = 0.14$), suggesting full mediation. Comparing Model 9 and Model 5, we found that the positive effect of MO on co-creation value in Model 5 become weaker in Model 9 ($\beta = 0.36$ vs. $\beta = 0.23$), suggesting partial mediation.

Finally, we examined the contributions of product innovation capability and marketing capability to the explanatory power of Model 2, Model 4, Model 6, Model 7, Model 8, and Model 9. Specifically, we examined the increases in R^2 (ΔR^2) of performance value, relationship value, and co-creation value when product innovation capability and marketing capability were included in these models. As shown in Table 3, $\Delta R^2_{\text{Model 1-2}}$, $\Delta R^2_{\text{Model 3-4}}$, $\Delta R^2_{\text{Model 5-6}}$, $\Delta R^2_{\text{Model 1-7}}$, $\Delta R^2_{\text{Model 3-8}}$, and $\Delta R^2_{\text{Model 5-9}}$ attributable to the mediating effect are statistically significant at <0.05 .

4.2. Model fit

Following the hypotheses tests we calculated the goodness-of-fit index (GoF) recommended by Amato, Vinzi, and Tenenhaus (2004) to assess the fit of both outer-measurement and inner-structural models to the data simultaneously. The GoF in PLS measures the quality of the measurement model for each construct and the redundancy index measures the quality of the structural model for each endogenous construct taking into account to the measurement model (Tenenhaus, Vinzi, Chaltelin, & Lauro, 2005). The GoF is computed by taking the square root of the product of the average communality of all constructs and the average R^2 value of the endogenous constructs as: $GoF = \sqrt{\text{communality} \times R^2}$. Drawing upon the categorization of R^2 effect sizes by Cohen (1988) and using the cut-off value of 0.5 for commonality (Fornell & Larcker, 1981), GoF criteria for small, medium, and large effect sizes are 0.1, 0.25 and 0.36 respectively (Schempers, Wetzels, & Ruyter, 2005). The calculated GoF for the model is 0.41, indicating good fit of each model to the data.

Further, we examined Q^2 predictive relevance originally developed by Stone (1974) and Geisser (1975). Using this procedure a generalized cross-validation measure and jackknife standard deviations of parameter estimates can be produced. Thus, Q^2 represents a measure of how well the observed values are reconstructed by the model and the model parameters. $Q^2 > 0$ indicates the model has predictive relevance. Using this procedure and with omissions distances between 5 and 15 the Q^2 value for the model is 0.30 indicating excellent predictive relevance of the model. Therefore, both the GoF and Q^2 analysis show the model is a good fit to the data.

5. Discussion and implications

The key objective of this study was to examine the roles of B2B firms' product innovation and marketing capabilities in contributing to the achievement of superior value creation in relation to performance, relationship and co-creation value. Our theory embedded within the positional advantage theory articulated that while in a B2B context MO is important it does not directly influence value creation. Specifically, we provide empirical mediational evidence that MO works partially through B2B firms' product innovation and marketing capabilities in facilitating the creation of superior value, especially performance value, and co-creation value. Whereas we show that product innovation capability partially mediates the MO-relationship value created by B2B firms, marketing capability fully mediates this relationship. Our findings provide a critical perspective about how B2B firms create value for their customers by deploying specific capabilities and how MO facilitates this deployment process.

5.1. Theoretical implications

Our study offers two key contributions to the literature. First, although MO may result in a superior marketplace advantage (Jaworski & Kohli, 1993; Menguc & Auh, 2006), we have limited understanding of the 'action' components that facilitate the implementation of MO, especially in B2B firms in the context of creating specific types of value for customers. We extend the current theory to now show the role of intervening capabilities within the context of B2B firms and the creation and delivery of value (performance, relationship and co-creation) to customers. Importantly, we show that capabilities perform a vital role, in influencing the firms' ability to create value, and how MO acts as a facilitating mechanism. On this point, the findings provide opportunities to extend the current literature by showing that MO has a special relationship within B2B firm capabilities and their value creation outcomes, via a fit as mediational role.

We argue that the results provide credence to the contention that, MO, product innovation capability and marketing capability allow B2B firms to recognize market shifts, especially in the context of sought after value by their customers. MO as a market sensing capability provides a knowledge base for firms to develop the required value creation processes and to develop and deploy specific capabilities in a superior fashion to create value. Further, our findings appear to support the view that a more market oriented firm is able to identify and deploy distinctive capability-capability combinations (MO-PIC and MO-MC) more efficiently and effectively than its rivals which may be less market oriented. Firms possessing a strong MO appear to encourage the deployment of capabilities that facilitate market linking and guides actions such as marketing and product innovation. As such, our results confirm that B2B firms' MO acts as a key market sensing capability, and their marketing and product innovation capabilities act as key market-relating mechanisms providing the basis for superior value creation. We adopted the premise that the presence of these specific capabilities provide the basis for competing on creating value and in effect are the basis on achieving positional advantages. A central tenet of our theory was that the market sensing capabilities facilitate the market linking requirements of firms and facilitates the manifestation of specific value via superiority in product innovation and marketing. Further, adopting the view of Venkatraman and Prescott (1990) our findings show that within B2B firms, a model of fit-as-mediation provides an enhanced understanding of the dynamic connections between firms ability to sense and respond through capability deployment (via product innovation capability and marketing capability) to ensure value creation.

Unlike much of the existing literature, our research addressed the competitive value of MO through B2B firms' specific functional capabilities. For example, in their original study of resource-advantage theory, Hunt and Morgan (Hunt & Morgan, 1995) described MO as a

valuable, rare, socially complex, and causally ambiguous resource available to firms. Both Day (1994) and Hunt and Morgan (1995) implied that not all firms are able to generate and sustain competitive advantages by implementing MO. Consequently, we posited that MO produces greater improvement in the B2B firms' value creation performance when combined with other internal complementary capabilities to create new dynamic capabilities that contribute to superior value creation. The shortcomings of MO as a stand-alone capability in generating a superior competitive advantage reinforces the need to theorize MO as a precursor to more functionally oriented capabilities within B2B firms. Thus, our focus of the action components which create and deliver value moves our theory toward removing the current shortcomings in the literature. Overall, our findings speak to the issue of how capability superiority in product innovation and marketing can create performance heterogeneity and ultimately deliver superior value creation in B2B firms. This idea is central to unlocking capabilities contribution to value creation and an important path for marketing and product innovation researchers to pursue when focusing on B2B firms ability to create and deliver superior value. Specifically, B2B firms' were more likely to exhibit superior performance, relationship and co-creation value when they had both high levels of product innovation capability and marketing capability. Although the view that both marketing and product innovation capabilities contribute to value creation is not entirely new, their mediational role is, especially in their role as mediators of the MO-value creation outcomes for B2B firms.

5.2. Managerial implications

For managers, the implication is clear; careful development and management of product innovation and marketing capabilities is essential for superior value creation as well as maximizing the benefits of being market oriented. In particular, our results calls on managers to realize that to transform market knowledge into superior value offerings for customers, firms need to strategically develop and manage product innovation and marketing capabilities. Market knowledge should be cultivated and managed to ensure appropriate behavioral manifestations of capabilities, implying that MO be managed with marketing and product innovation capabilities in mind in B2B firms if the firms' focus is on value creation (product performance, relationship and co-creation). In this sense being driven by MO alone does not appear strategically sound in achieving value creation superiority and there is a requirement for specific functional capabilities to be fostered and managed carefully. Importantly, firms need to endow R&D and marketing departments with necessary resources to acquire appropriate market knowledge and develop capabilities in value creation activities. Our measures of performance value, relationship value, and co-creation value could serve as managerial guides for managers to direct the resource picking and capability building.

Importantly our theory and measures provide guidelines for management practices in firms seeking to develop capabilities to deliver superior value. Indeed, the role of value creation appears to be one of growing managerial importance and focus for many firms and there are many examples that can be found in the media and literature related to firm utilizing specialist capabilities to create specific value for customers. For example, a closer examination of many firm activities and performance and articles in the popular and industry press alludes to the fact that the continued success of companies such as Intel, 3 M, FedEx, Merck, Caterpillar, UPS, SYSCO, Monsanto appears to be based on their ability to create superior value for their business customers through enhanced performance, relationship building and co-creation. Creating superior value for customers may have the power to transform industries. For example, computer chip producers like LSI Logic Corporation and VLSI Technology provide their business customers with do-it-yourself tools that enable customer-chip-based manufacturers (e.g. toy manufacturers that

need circuitry in their products) to design their own specialized chips, thus taking the custom computer chip market from virtually nothing to more than \$20 billion.

Companies such as IBM and General Electric have also developed specific capabilities necessary to design, produce and integrate their offerings to ensure performance, relationship and co-creation value are key components delivered to individual customer's business requirements. In this area, world leading companies such as GE, Ericson, Rolls-Royce and IBM compete on providing solutions driven by specific types of value creation and delivery, rather than simple products or service that are stand alone. Rolls-Royce, for instance, competes not just on its ability to build airplane engines, but works closely with airline companies to establish enhanced value in relationship and co-creation across a range of products and services that are integrated and offer superior value to rivals.

Importantly, the role of relationship value and co-creation and the development of specific capabilities are evidenced in the business-to-business relationships of companies such as P&G and Wal-Mart, which are high profile, market leaders in their respective industries. P&G and Wal-Mart found a way to create greater value through relationship building and co-creation by leveraging on information technology across their mutual supply chains. The resulting channel has become more efficient because channel activities become better coordinated. All in all, the supply chain between P&G and Wal-Mart has adopted a much better customer focus through the relationship value and co-creation value their partnership creates.

Another example is UPS, which has significant innovation capabilities, especially in technology innovation. UPS uses such innovation capabilities to create performance value. This can be seen in it alliance with 3Com to utilize 3Com's Palm technology. This application by UPS and 3Com allows package status checking for customers and UPS service locations and other features which together provide increased performance value. In the context of relationship value a good example can be found between UPS and Kodak. UPS and Kodak have established reciprocal relationships where UPS gains value from the relationship in the area of Kodak's imaging expertise and Kodak benefits from UPS distribution capabilities. There are growing numbers of firms competing on the basis of creating superior value and these examples identified here show firms with superior capabilities in specific areas develop a greater capacity to create and deliver performance, relationship and co-creation value to customers, and firms such as UPS, Kodak, SYSCO, AutoNation and Caterpillar are but a few examples.

6. Limitations and directions for future research

Our findings should be interpreted in light of specific limitations of the study. First, with the use of cross-sectional data, inferences about causality should be made with a degree of caution. Research using longitudinal data could help to evaluate the sequences of impacts among MO, product innovation capability, marketing capability, and value creation. Importantly, one essential contribution to the existing knowledge would be to investigate the causal relationship between MO and capabilities. Second, drawing on capability theory we place emphasis on MO, product innovation capability, and marketing capability. Future research can take into account other potential 'action' components. Finally, as we do not take into account the potential impact of contextual conditions (e.g. technological turbulence and marketplace turbulence or country context: developed-developing), the combinations of MO, product innovation capability, and marketing capability might produce different performance results. However, we believe Australia is an adequate laboratory to test the theory as we recognized that most of the research considered customer value implications of supplier firm capabilities has been conducted in the US and in this context, Australia was selected as an example of a developed economy outside the US. Future research may take into

consideration the cross-national generalizability between developed and developing economies.

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