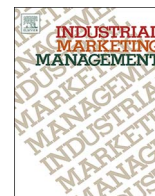




Contents lists available at ScienceDirect

# Industrial Marketing Management

journal homepage: [www.elsevier.com/locate/indmarman](http://www.elsevier.com/locate/indmarman)

Target and position article

## Enhancing firm performance: The role of brand orientation in business-to-business marketing<sup>☆</sup>

Yu Chang<sup>a</sup>, Xinchun Wang<sup>b,\*</sup>, Dennis B. Arnett<sup>c</sup><sup>a</sup> School of Management, Northwestern Polytechnical University, Xi'an 710072, China<sup>b</sup> College of Business and Public Administration, University of North Dakota, Grand Forks, ND 58201, United States<sup>c</sup> Rawls College of Business, Texas Tech University, Area of Marketing, Lubbock, TX 79409, United States

### ARTICLE INFO

#### Keywords:

Business-to-business branding  
Brand performance  
Customer value co-creation  
Entrepreneurial orientation  
Marketing capability

### ABSTRACT

Though business-to-business branding has received substantial attention from researchers, practitioners are slow to adopt brand orientations. This study highlights the role of brand orientation in translating managerial and organizational resources into superior brand performance. Specifically, this study extends the extant literature by (1) investigating the factors that influence whether managers adopt a brand orientation and (2) exploring the processes that allow B2B branding to influence brand performance. Using data collected from 166 Chinese industrial firms operating in a variety of industrial sectors, this study finds that both entrepreneurial orientation and marketing capability positively influence a firm's brand orientation and the brand orientation can influence a firm's brand performance both directly and indirectly by encouraging customer value co-creation activities.

### 1. Introduction

The importance of branding in business-to-consumer (B2C) contexts is well accepted. As Keller (1993, p. 2) emphasizes, “a firm's most valuable asset for improving marketing productivity is the knowledge that has been created about the brand in consumers' minds from the firm's investments in previous marketing programs.” However, managers have been slower to recognize the value of developing a brand orientation, which refers to a strategic orientation that views branding as an important driver of firm success (Urde, 1999), in business-to-business (B2B) settings. This trend is changing. Research examining B2B branding issues are becoming more prevalent (see, e.g., Lambkin & Muzellec, 2010; Reijonen, Hirvonen, Nagy, Laukkanen, & Gabrielsson, 2015). Studies suggest that brands benefit industrial firms in a number of ways, including raising the quality perceptions of their offerings (Michell, King, & Reast, 2001), enabling premium pricing strategies (Michell et al., 2001), and improving market performance (Homburg, Klarmann, & Schmitt, 2010). Interestingly, many marketing practitioners do not recognize the strategic value of B2B brands (Leek & Christodoulides, 2011). As a result, they fail to adopt brand orientations. That is, they do not view B2B branding as an important component of their marketing strategies (Urde, Baumgarth, & Merrilees, 2013). Leek and Christodoulides (2011) suggest B2B managers may not understand the mechanism that links branding efforts to firm

performance. Our initial in-depth interviews with managers seem to support this view. We find that B2B firms often eschew investing in brand-focused strategies because they are not convinced that they will result in immediate financial rewards. Extant research on B2B branding tends to focus on how B2B branding influences firm performance. Our study is different in that it focuses on understanding why some firms adopt a brand orientation while others do not. Specifically, we examine two research questions.

- (1) What factors influence whether B2B firms adopt brand orientations?
- (2) How does brand orientation affect brand performance?

Drawing on research using upper-echelon theory (Hambrick, 2007; Hambrick & Mason, 1984), the resource-based view (Barney, 1991; Hunt, 2010), and service-dominant logic (Vargo & Lusch, 2004, 2008), we develop a theory-based model that highlights the role that brand orientation plays in translating key management and organizational factors into increased firm value and better brand performance (see Fig. 1). The model proposes that brand orientation is directly affected by managers' entrepreneurial orientation and firms' marketing capabilities. In addition, it hypothesizes that brand orientation influences brand success both directly and indirectly by encouraging customer value co-creation, which in turn affects brand performance. We test our

<sup>☆</sup> The first author acknowledges the financial support provided by the National Social Science Fund of China (Grant No. 17XGL014).

\* Corresponding author.

E-mail addresses: [changyu@nwpu.edu.cn](mailto:changyu@nwpu.edu.cn) (Y. Chang), [xinchun.wang@und.edu](mailto:xinchun.wang@und.edu) (X. Wang), [dennis.arnett@ttu.edu](mailto:dennis.arnett@ttu.edu) (D.B. Arnett).

<https://doi.org/10.1016/j.indmarman.2018.01.031>

Received 28 July 2017; Received in revised form 22 January 2018; Accepted 23 January 2018  
0019-8501/ © 2018 Published by Elsevier Inc.

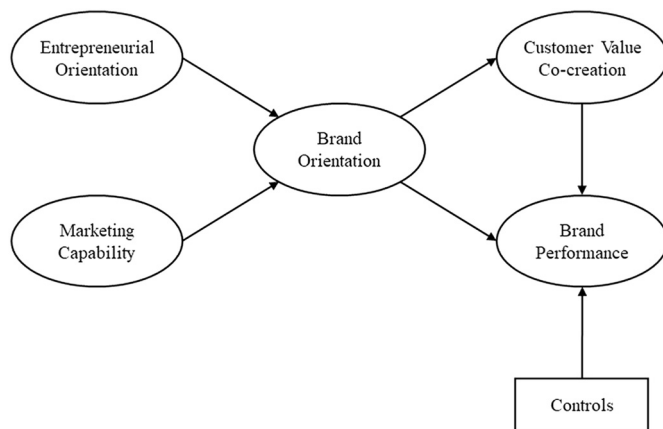


Fig. 1. Hypothesized model.

model using data collected from 166 Chinese industrial firms operating in a variety of industrial sectors.

Our study contributes to the existing literature in several ways. First, it provides new insights concerning the factors that affect whether B2B firms adopt brand orientations by looking at both characteristics of managers and capabilities of firms. This provides guidance for firms that would like to become more brand oriented. Second, it uncovers the underlying process by which brand orientation affects brand performance (i.e., both directly and indirectly through customer value co-creation). Third, the inclusion of customer co-creation as a construct in our model provides additional insights into the relational aspects of B2B branding (Davis, Golicic, & Marquardt, 2008; Zhang, Jiang, Shabbir, & Du, 2015). Fourth, in general, our results enable marketing practitioners to “see” how B2B branding efforts can affect performance, which could result in more firms adopting a B2B brand orientation.

Our paper is organized as follows. First, a theoretical framework is developed and the corresponding hypotheses are presented. Second, the analysis method employed is outlined. Third, the results and research findings are summarized. Finally, the paper concludes with discussions of both the theoretical and managerial implications.

## 2. Theoretical framework

### 2.1. Brand orientation in the B2B context

Brand orientation refers to “an approach in which the processes of the organization revolve around the creation, development, and protection of brand identity in an ongoing interaction with target customers with the aim of achieving lasting competitive advantage” (Urde, 1999, p. 117). It is a form of marketing orientation in which top management strongly emphasizes the role that branding plays in the success of the firm (Baumgarth, 2010; Reijonen et al., 2015). Compared to customer-oriented firms that value market intelligence (Deshpandé, Farley, & Webster Jr, 1993), brand-oriented firms tend to have clear brand visions and identities, as well as systems in place to manage the relationships between their brands and their main stakeholders (Reid, Luxton, & Mavondo, 2005).

Though both B2B and B2C firms adopt brand orientations, research suggests that the differences inherent in the two domains may affect how brand orientations are realized (Baumgarth, 2010). For example, B2B decision-making processes tend to be more complex than those in B2C markets. They involve more people, are more formalized, and involve buyers, who have extensive knowledge of the products and services they are purchasing. In addition, there tends to be less customers and more reliance on personal contact (Leek & Christodoulides, 2011). As a result, relational ties play an important role in buying decisions (Duncan & Moriarty, 1998). In addition, customers and suppliers often develop close relationships in which they participate in the

development and implementation of each other's strategies (Yi & Gong, 2013). As a result, brand associations encompass a broad set of characteristics, which could include co-creation activities that provide value for both suppliers and customers (Davis et al., 2008). Moreover, B2B purchases often combine both physical products and intangible services. Therefore, the potential sources of brand equity are vast (Vargo & Lusch, 2011).

Some question whether rational trained industrial buyers can be influenced by the intangible characteristics of brands (see, e.g., Bendixen, Bukasa, & Abratt, 2004; Leek & Christodoulides, 2012; Lindgreen, Beverland, & Farrelly, 2010). Others suggest that the tendency to reward managers using short-term performance goals deters manager from choosing a brand orientation (Core, Holthausen, & Larcker, 1999; Leek & Christodoulides, 2011). In contrast to these views, empirical studies suggest that B2B branding is effective (e.g., Homburg et al., 2010; Michell et al., 2001). How do B2B firms overcome these obstacles and adopt a brand orientation?

### 2.2. Factors influencing brand orientation

The building and maintenance of a brand requires significant resource commitments (e.g., human resources and promotion and advertising efforts) (Erdem & Sun, 2002). Thus, managers must carefully weigh the pros and cons of adopting a B2B brand orientation. Firms that are more willing to engage in branding activities than others are considered to be more brand oriented (Reijonen et al., 2015). Drawing on the Upper-echelon theory and the resource-based view, we propose that two key factors influence the degree to which a firm is brand oriented—management's entrepreneurial orientation and the firm's marketing capability.

#### 2.2.1. Entrepreneurial orientation

Entrepreneurial orientation (EO) refers to the processes, practices, and decision-making activities that lead to entrepreneurial decisions and actions (Dess, Lumpkin, & Covin, 1997; Li, Huang, & Tsai, 2009; Lumpkin & Dess, 1996). Characteristics associated with EO include, autonomy, innovativeness, risk taking, proactiveness, and competitive aggressiveness (Rauch, Wiklund, Lumpkin, & Frese, 2009). Lyon, Lumpkin, & Dess describe the dimensions as follows (Lyon, Lumpkin, & Dess, 2000, p. 1056):

The competitive aggressiveness dimension of EO [entrepreneurial orientation] can be defined as the tendency of firms to assume a combative posture towards rivals and to employ a high level of competitive intensity in attempts to surpass rivals. Innovativeness refers to attempts to embrace creativity, experimentation, novelty, technological leadership, and so forth, in both products and processes. Proactiveness relates to forward-looking, first mover advantage-seeking efforts to shape the environment by introducing new products or processes ahead of the competition. Risk taking consists of activities such as borrowing heavily, committing a high percentage of resources to projects with uncertain outcomes, and entering unknown markets. Autonomy refers to actions undertaken by individuals or teams intended to establish a new business concept, idea, or vision.

Upper-echelon theory maintains that managers' personal characteristics, such as EO, influence strategic decision-making (Hambrick, 2007; Hambrick & Mason, 1984). Research investigating EO suggests that it is positively related to firm performance (e.g., Hult, Snow, & Kandemir, 2003; Lumpkin & Dess, 2001).

The adoption of a brand orientation is considered an entrepreneurial activity (Low & Fullerton, 1994; Noble, Sinha, & Kumar, 2002). It is a resource-intensive process (Leek & Christodoulides, 2011). In addition, building/maintaining brands involve significant opportunity costs for firms, as resources can always be used for other strategic purposes (Rauch et al., 2009). Therefore, a brand orientation may be

viewed by many managers as being too perilous—especially if they are motivated by short-term financial goals (Leek & Christodoulides, 2011). Therefore, to be successful, managers must be willing to take risks, be proactive, and engage in innovative activities. That is, they must adopt an EO (Wiklund & Shepherd, 2003). An EO enables firms to develop innovation capabilities (Avlonitis & Salavou, 2007) and identify new opportunities more easily than other firms with lower levels of EO (Zahra, Sapienza, & Davidsson, 2006). Entrepreneurial-oriented managers, however, are willing to explore new growth opportunities and take risks. They are also more likely to take long-term strategic perspectives and, therefore, they are more likely to perceive the value of being brand-oriented (Lumpkin & Dess, 2001). Therefore, we hypothesize:

**H1.** Entrepreneurial orientation is positively related to brand orientation.

### 2.2.2. Marketing capability

Though an EO is predicted to influence firms' decisions regarding whether to become brand-oriented, it is not sufficient to ensure that firms will indeed become so. To successfully adopt strategic initiatives, firms must also possess certain abilities that will allow them to be successful in those endeavors (Reijonen et al., 2015). In regards to branding, research suggests that firms, which have higher levels of marketing capabilities, tend to be more successful (Spyropoulou, Skarmas, & Katsikeas, 2011). Marketing capabilities are defined as a firm's ability to coordinate elements of its marketing mix with its resource inputs to develop and implement successful marketing strategies (Morgan, Vorhies, & Mason, 2009). Key to this process is the management of market information and the development and execution of marketing strategies (Vorhies & Morgan, 2005). Research suggests that marketing capability enhances brand performance (e.g., customer satisfaction and loyalty) (Vorhies, Orr, & Bush, 2011). In addition, it allows firms to develop deep market insights and to better understand fast-changing markets (Day, 1994). Moreover, marketing capabilities are dynamic resources that enable firms to achieve sustainable competitive advantages (Day, 2011). Consequently, firms that exhibit higher levels of marketing capabilities are more likely to recognize the importance and value of building strong brands. For example, Morgan et al. (2009) find that firms that exhibit higher levels of marketing capabilities are more likely to experience strong brand performance. Therefore, we hypothesize:

**H2.** Marketing capability is positively related to brand orientation.

### 2.3. Brand orientation and brand performance

In general, one would expect that the relationship between brand orientation and brand performance to be positive because firms with higher levels of brand orientation are more willing to engage in branding activities (Reijonen et al., 2015). However, studies that examine the effects of branding activities on firm performance suggest that some firms may not benefit from their branding initiatives. For B2C firms, the positive relationship between branding activities and firm performance is well documented (see, e.g., Aaker, 1997; Rao, Agarwal, & Dahlhoff, 2004). However, in B2B markets the relationship is not clear (i.e., results are mixed) (Ohnemus, 2009). A number of explanations for the lack of consistent findings have been put forth, including differences in brand relevance across product categories (Backhaus, Steiner, & Lügger, 2011), interactions between brand image and corporate reputation (Cretu & Brodie, 2007), the effects of market characteristics (e.g., technology turbulence) and factors affecting buyers (e.g., time pressure) (Homburg et al., 2010).

The pursuit of successful brands in B2B markets seems logical. Strong brands are perceived to deliver more value to customers (Aaker, 1997). In addition, firms with successful brands can often charge higher

prices than rivals do (Persson, 2010). Also, there is a positive relationship between respected brands and customer loyalty (Yoo & Donthu, 2001). Moreover, powerful brands allow firms to occupy marketplace positions of competitive advantage (Van Riel, De Mortanges, & Streukens, 2005). So, why is it the case that results from studies examining branding in the B2B context are equivocal? One possible answer is that extant studies do not taken into account all of the mechanisms by which brand orientation affects brand performance. Therefore, we model the relationship between brand orientation and brand success in two ways.

#### 2.3.1. Direct effects

Brand orientation describes the extent to which a firm is willing to invest organizational resources in the branding process (Reijonen et al., 2015). In general, firms that develop a brand orientation view brands as important factors in the success of firms (Hankinson, 2002). As a result, they are willing to devote resources to their branding activities (Reijonen et al., 2015). Brand orientation benefits firms in a number of ways, including closer relationships with customers, which results in higher levels of trust and commitment (Keh & Xie, 2009), higher levels of customer loyalty and satisfaction, which results from higher levels of trust and commitment (Morgan & Hunt, 1994), an ability to deliver more brand value, which leads to increases in purchase intentions (Kumar, Bohling, & Ladda, 2003; Urde, 1999), and the development of stronger brand images. Superior brand image results in higher brand value, which ultimately influences the willingness of customers to pay for the premium price. Given the price-inelastic nature of B2B purchases, suppliers can benefit from premium pricing by developing a superior brand (Michell et al., 2001; Persson, 2010). Therefore, we hypothesize:

**H3.** Brand orientation is positively related to brand performance.

#### 2.3.2. The mediating role of customer value co-creation

The ultimate goal of branding is to develop and deliver superior customer value, which in turn results in superior firm performance (Rao et al., 2004). Traditional views of supplier-customer relationships envision suppliers producing offerings and customers purchasing them (Payne, Storbacka, & Frow, 2008). Under this view, the extent to which a brand creates value depends mainly on the quality of the supplier's marketing efforts (e.g., product development and promotion). However, this view has been challenged. For example, Vargo and Lusch's (2004, 2008) service-dominant logic view suggests that firms cannot generate brand value unless customers are engaged in the branding process. They maintain that "the consumer is always involved in the production of value" (p. 11). According to this view, there is no value until a market offering is used. As a result, value generation must involve both suppliers and customers. The process is referred to as value co-creation. It can cover a large array of activities, such as joint strategic planning, information sharing, and decision-making. In the case of branding, value co-creation becomes an important mechanism that aids the development of valued brands (Ranjan & Read, 2016).

Brand-oriented firms are more likely to understand the value of including customers in their branding activities (Reijonen et al., 2015). In the B2B market, market offerings are often a combination of both services and physical products. Thus, to develop customized offerings, customer participation is often expected (e.g., Fang, 2008; Fang, Palmatier, & Evans, 2008). If a firm places strategic priority on branding (i.e., brand orientated), it will be more willing to devote efforts to developing and delivering superior brand value to its customers and customer customization and participation are effective ways to achieve this goal. Thus, it is anticipated that brand orientation is positively associated with customer value co-creation. We hypothesize:

**H4.** Brand orientation is positively related to customer value co-creation.

Customer engagement in the value co-creation process provides suppliers with opportunities to better understand customer expectations and improve their marketing effectiveness/efficiency (Kalaiganam & Varadarajan, 2006; Oliver, 2006). The benefits accrue to both suppliers and their customers. As Ramaswamy (2011, p. 195) maintains, “co-creation is the process by which mutual value is expanded together.” Specifically, the customer can improve its innovation capability and obtain higher product/service quality (Kelley, Donnelly Jr, & Skinner, 1990). The supplier, on the other hand, can better understand customers’ needs and, thus, provide better tailored marketing offerings (Grönroos, 2011). In addition, value co-creation enhances the mutual understanding of the brand’s value (Tynan, McKechnie, & Chhuon, 2010). Given the nature of B2B purchasing, i.e., the tendency to rely on relationship-based transactions rather than ones based on price competition, engaged customers are more likely to be brand loyal and have higher levels of satisfaction, which increases repurchase rates (Mittal & Kamakura, 2001; Payne et al., 2008). Moreover, customers, who actively participating in value co-creation activities, tend to be more committed to the relationship (Yi & Gong, 2013). The participation in value co-creation also encourages customers to provide suppliers with timely feedback, which allows them to quickly address potential problems and achieve better firm performance (Markus, Mertens, & Murphy, 2005). Thus, it is anticipated that value co-creation results in better brand performance. Therefore, we hypothesize:

**H5.** Customer value co-creation is positively related to brand performance.

### 3. Method

#### 3.1. Sample and data

The data for this study comes from 166 Chinese B2B companies. The sample frame consists of key informants in these companies. To identify them, we contacted the alumni organization of an EMBA program in a major university in China. The organization was able to give us access to a list of executives, who graduated from the EMBA program. The initial list contained contact information for key contacts in approximately 800 firms. Given that our study involves B2B marketing efforts, the list was culled to include only B2B firms. In addition, to assure that the informants had the necessary knowledge, we choose people, who were senior managers/directors in sales, marketing, or supply chain management units and, who had worked in their companies for three or more years. A total of 585 potential informants were included in the final sample frame. The survey questionnaires were distributed to informants via e-mail. Informants were instructed as to the purpose of the study and received a guarantee that their firms’ information and their identities would be kept confidential. To increase our response rate, the informants were provided with an option to receive a summary of the research findings. Two reminder e-mails were sent. A total of 185 responses were received, which represents a response rate of 31.62%. An examination of the data revealed that 19 of the responses were not usable due to a large amount of missing data. The final sample consists of data from 166 companies covering a variety of industry sectors (see Appendix A for the descriptive statistics of the sample).

#### 3.2. Measures

The original questionnaire was developed in English. A standard back-translation technique was used to translate the questionnaire into Chinese (Brislin, 1980). To ensure the quality of the questionnaire design, a pre-test with 25 informants was conducted to examine if there were any confusing or ambiguous questions. The pre-test informants were also asked to provide suggestions on improving the presentation of the questionnaire. This process did not result in any major changes. The key constructs are measured using previous developed scales.

Minor modifications were made in wording to adapt the questions to the context of the study. All items use a seven-point Likert scale (1 = “strongly disagree” and 7 = “strongly agree”). The descriptive statistics of the constructs are presented in Table 2.

*Brand orientation* is measured using a five-item scale, which is adapted from Reijonen et al. (2015) and Yin Wong and Merrilees (2007). This scale captures the extent to which a firm believes branding is an essential element of its business strategy portfolio. *Entrepreneurial orientation* is measured using a seven item scale, which is adapted from Walter, Auer, and Ritter (2006) and Lumpkin and Dess (1996). These items capture management’s strategic orientation in regards to innovativeness, proactivity, and competitive aggressiveness. *Marketing capability* is measured using a five-item scale, which is adapted from O’Cass and Ngo (2012) and Morgan et al. (2009). These items measure the extent to which a firm possesses capabilities related to the development and implementing of marketing strategies. *Customer value co-creation* is measured using a four-item scale, which is adapted from Claro and Claro (2010). It captures the extent to which customers are involved in the supplier’s business processes. *Brand performance* is measured using a five-item scale, which is adapted from Baumgarth and Binckebanck (2011) and Davis et al. (2008). It reflects the outcomes associated with successful brands (e.g., loyalty, competitive advantages, and the ability to charge higher prices).

A number of control variables are included in our study. To control for firm-level heterogeneity, we include a dummy variable that captures whether a firm is considered a service or a nonservice (2 = services, 1 = non-services), a dummy variable designed to identify ownership characteristics (1 = state-owned firms, 0 = non-state-owned firms), and firm size, which is operationalized as the number of employees. To control for industry-level heterogeneity, we include measure of industry competitive intensity and technology turbulence. All the measures are shown in Table 2.

### 4. Analysis and results

The data are analyzed using partial least square (PLS) analysis (Wold, 1982). As Arnett, Laverie, and Meiers (2003) suggest, PLS offers benefits over other techniques. PLS does not make strict assumptions regarding the distribution of the data, such as normality, and is not sensitive to the problems associated with smaller sample sizes (Anderson & Gerbing, 1988; Wold, 1982). First, the properties of the measurement model are assessed, including the internal reliabilities, convergent and discriminant validities, and the common method variance. Second, the structural model is examined to test the hypotheses represented by Fig. 1.

#### 4.1. Measurement model

The measurement model is tested within the imposed structure of the hypothesized model. The means, standard deviations and inter-correlations are shown in Table 1. The measurement results, including the internal reliability and the average variance extracted (AVE) for each construct are presented in Table 2.

##### 4.1.1. Internal reliability and convergent validity

The internal reliabilities are calculated using the measurement loadings. All composite reliabilities are greater than or equal to 0.88, which is above the 0.70 level recommended by Nunnally (1978). Following O’Cass and Ngo (2012), the convergent validity is examined using the indicator loadings and the average variance extracted (AVE). All factor loadings are greater than or equal to 0.72, which is higher than the 0.50 level recommended by Hulland (1999). In addition, the AVE value for each construct is greater than or equal to 0.63. These results suggest that the measurement model demonstrates acceptable convergent validity.

**Table 1**  
Means, standard deviations and intercorrelations.

	Mean	S.D.	1	2	3	4	5	6	7	8	9	10	11
1. Brand orientation	6.00	1.18		0.47	0.41	0.28	0.44	−0.03	−0.22	−0.01	−0.02	0.28	0.03
2. Entrepreneurial orientation	5.66	1.02	0.50		0.57	0.45	0.56	0.01	−0.09	−0.10	0.12	0.34	0.09
3. Marketing capability	5.08	1.17	0.44	0.60		0.23	0.51	−0.02	−0.15	−0.10	0.07	0.41	0.16
4. Customer value co-creation	5.01	1.41	0.31	0.48	0.26		0.34	0.07	0.04	−0.02	−0.06	0.17	0.02
5. Brand performance	5.38	1.09	0.47	0.59	0.54	0.37		0.11	−0.08	0.08	0.02	0.26	0.09
6. Firm size	3.47	1.80	0.00	0.04	0.01	0.10	0.14		0.07	0.27	0.14	0.11	0.16
7. Service	1.47	0.50	−0.19	−0.06	−0.12	0.07	−0.05	0.10		−0.21	−0.13	−0.06	0.03
8. Ownership	0.34	0.48	0.02	−0.07	−0.07	0.01	0.11	0.30	−0.18		−0.04	0.03	−0.10
9. Competition	2.94	0.84	0.01	0.15	0.10	−0.03	0.05	0.17	−0.10	−0.01		0.05	0.00
10. Technology turbulence	5.08	1.21	0.31	0.37	0.44	0.20	0.29	0.14	−0.03	0.06	0.08		0.13
11. MV (R&D intensity)	3.14	1.72	0.06	0.12	0.19	0.05	0.12	0.19	0.06	−0.07	0.03	0.16	

Note: coefficients that have absolute value > 0.15 are significant at the 0.05 level. Following (Lindell & Whitney, 2001), zero-order correlations are below the diagonal; adjusted correlations for potential common method variance are above the diagonal.

#### 4.1.2. Discriminant validity

Discriminant validity is tested using the method prescribed by Fornell and Larcker (1981). The results indicate that the shared variance between each construct and its measures is higher than the shared variance between each construct and the other constructs in the model. This suggests that the measurement model demonstrates adequate discriminant validity.

#### 4.1.3. Common method variance

The data for each firm were collected from a single respondent. In addition, they are cross-sectional in nature. Therefore, common method (same-source) bias may be an issue (Doty & Glick, 1998). To test for this possibility, we follow Chung, Wang, Huang, and Yang (2016) and Lindell and Whitney (2001) to include a marker variable (i.e., R&D intensity) in our model to test for the potential common method bias. As Lindell and Whitney (2001) suggest, the marker variable should be unrelated to at least one key variables in the model. In this study, we use a firm's R&D intensity as a marker variable. In theory, R&D intensity is not related to a firm's marketing capability nor a firm's willingness to co-create value with its customer. The results suggest that (1) the marker variable (i.e., R&D intensity) is not significantly correlated with most key variables in our model; (2) after adjusting the correlations based on the lowest positive correction between the marker variable and the key variable (i.e., 0.03), the correlations among the key variables are not significantly different from the original ones.

Second, we use the Harman one-factor test (Podsakoff & Organ, 1986). All of the measurement items were included in a single principle component factor analysis (unrotated solution). Common method variance exists when a single factor emerges or accounts for most of the shared variance among the variables. The analysis revealed five factors with eigenvalues > 1. The first factor explains 41.44% of the total variance. The above evidences suggest that common method variance does not seem to be an issue.

#### 4.2. Structural model

The results of the structural model are summarized in Table 3. The hypothesized model explains a large portion of the variance in the endogenous constructs—34% of the variance in brand performance, 29% of the variance in brand orientation, and 10% of the variance in value co-creation. This suggests that the hypothesized structural model is appropriate (Wang, Arnett, & Hou, 2016).

All five hypotheses (100%) are supported. Entrepreneurial orientation is positively related to brand orientation ( $\gamma = 0.38$ ,  $t = 3.62$ ). Thus, H1 is supported. Marketing capability is positively related to brand orientation ( $\gamma = 0.22$ ,  $t = 2.40$ ). Thus, H2 is supported. Brand orientation is positively related to firm performance ( $\beta = 0.32$ ,  $t = 2.96$ ). Thus, H3 is supported. Brand orientation is positively related to Customer value co-creation ( $\beta = 0.32$ ,  $t = 3.15$ ). Thus, H4 is

supported. Customer value co-creation is positively related to Brand performance ( $\beta = 0.25$ ,  $t = 3.77$ ). Thus, H5 is supported.

Given that our model hypothesizes that customer value co-creation acts as a mediator between brand orientation and brand performance (see Fig. 1), we conduct an additional test to determine the nature of the relationship. Following Wang et al. (2016), we compare the results of our hypothesized model to those of a rival model in which no mediating effect is included (see Table 3). In the rival model, brand orientation is positively related to brand performance ( $\beta = 0.40$ ,  $t = 4.98$ ) and the model accounts for 29% of the variance in brand performance. When the mediating effect is included (hypothesized model) the relationship between brand orientation on brand performance is diminished ( $\beta = 0.32$ ,  $t = 2.96$ ). This result combined with the fact that both the relationship between brand orientation and value co-creation ( $\beta = 0.32$ ,  $t = 3.15$ ) and the relationship between value co-creation is positively related to brand performance ( $\beta = 0.25$ ,  $t = 3.77$ ) are significant, suggests that customer value co-creation partially mediates the relationship between brand orientation and brand performance.

## 5. Discussion

Though B2B branding is catching the attention of researchers, practitioners are slow to adopt brand orientations. We develop and test a theory-based model that highlights the role that brand orientation plays in translating key management and organizational factors into firm value and brand performance. The results provide evidence as to the central role that brand orientation plays in B2B settings. First, it influences brand performance (i.e., customer loyalty, competitive advantage, and the ability to charge higher prices) both directly and indirectly, by encouraging customer value co-creation. In general, brand orientation encourages management to devote more resources to branding efforts. These resources can be directed toward efforts designed to engage customers through joint strategic planning, information sharing, and decision-making processes. As our results suggest, the inclusion of the customer value co-creation construct in our model provides additional insights into the processes that lead to increased brand performance.

Our study also provides insights into how firms can promote brand orientation. Specifically, we examine two factors that influence the development of a brand orientation—entrepreneurial orientation and marketing capability. The results suggest that both of these factors encourage the formation of a brand orientation. In general, when firms have higher levels of entrepreneurial orientation, they are more innovative, proactive, and likely to take risks, which encourage them to become more brand-oriented. Similarly, marketing capability also influences positively brand orientation. A marketing capability provides managers with necessary resources for branding and enables them to recognize the importance and value of building strong brands.

**Table 2**  
Measures and measurement model results.

Construct/measurement items	Loading
Brand orientation (AVE = 0.81, internal reliability = 0.96)	
Brand1 Branding is essential to our strategy	0.90
Brand2 Branding flows through all our marketing activities	0.92
Brand3 Branding is essential in running this company	0.92
Brand4 Long-term brand planning is critical to our future success	0.90
Brand5 The brand is an important asset for us	0.87
Entrepreneurial orientation (AVE = 0.63, internal reliability = 0.92)	
Relative to our competitors,	
EO1 In our firm, innovation is emphasized above all.	0.78
EO2 People in our firm are encouraged to experiment in this organization so as to identify new, more innovative approaches or products.	0.76
EO3 People in our firm are willing to take risks.	0.78
EO4 Long-term potential is valued over short-term performance in our firm	0.85
EO5 Our firm has higher ability to persevere in making our vision of the business a reality	0.80
EO6 Our firm has higher ability to identify new opportunities	0.79
EO7 Our firm is very aggressive and intensely competitive	0.78
Marketing capability (AVE = 0.66, internal reliability = 0.89)	
MKT1 Our firm's incorporation of customer needs into marketing of products and services has been better than competitors.	0.79
MKT2 Our firm's implementation of marketing activities has been better than competitors.	0.88
MKT3 Our firm's advertising management and creative skills are better in comparison with our competitors.	0.80
MKT4 Our firm's skills to segment and target markets are better in comparison with our competitors.	0.78
Customer value co-creation (AVE = 0.65, internal reliability = 0.88)	
VCC1 Our customers actively participate in the process of new product development of our company.	0.72
VCC2 Our customers provide us with sale forecasts for the products our company sells to them.	0.81
VCC3 Our company shares long-term plans of our products with our customers.	0.87
VCC4 The customers and our company deal with problems that arise in the course of the relationship together.	0.82
Brand performance (AVE = 0.76, internal reliability = 0.94)	
Relative to our competitors,	
FP1 Our customers are willing to pay more in order to do business with us.	0.86
FP2 Our customers expect to continue the business relationship with us for a long time.	0.90
FP3 Our firm has built strong customer brand loyalty.	0.84
FP4 Our firm is advantageous position in competition	0.88
FP5 Our firm is successful in retaining current customers.	0.87
Control variables	
Firm size: number of employees	
Service: 1 = non-service firms; 2 = service firms	
Firm ownership: 1 = state-owned firms; 0 = non-state-owned firms	
Competition intensity	
Which of the following best describes the supplier environment you've been recalling?	
Has no major brands = 1;	
Has a small number of major brands = 2;	
Has an even mix of major brands and less well-known brands = 3;	
Has many major brands = 4.	
Technological turbulence (AVE = 0.77, internal reliability = 0.85)	
The technology in our industry is changing rapidly.	0.86
Technological changes provide significant opportunities in our industry.	0.92
A large number of new product ideas have been made possible through technological breakthroughs in our industry.	0.84

### 5.1. Theoretical implications

This study makes several contributions to the existing literature. First, though previous studies have provided evidence supporting the positive role of branding in both B2C and B2B markets, few studies have shed light on why some firms pursue brand strategies and others do not.

In this study, we bridge this gap by proposing two important factors that motivate or help firms build stronger brand orientations. Specifically, the results suggest entrepreneurial orientation provides an alternative explanation for the firm heterogeneity in brand orientation. Moreover, marketing capability serves as a potential source that provides the organizations with the resources needed to ensure the success of branding strategies. The findings of this study enrich the current literature by identifying organizational resources that can help them develop a brand orientation.

Second, this study extends the current literature by examining the effects of customer value co-creation (e.g., Payne et al., 2008; Wang, Lee, Fang, & Ma, 2017). Prior research suggests that customer value co-creation can result in favorable firm performance for both suppliers and customers (Ranjan & Read, 2016). The present study, however, provides additional insights into how customer value co-creation can potentially serve as a mechanism by which a firm's brand orientation influences its performance. Specially, drawing on the S-D logic, this study suggests that a firm's brand orientation can indirectly influence its brand performance by encouraging customer value co-creation activities, which aid in the development of both relational brand assets and successful brands.

Third, this study uncovers an important aspect of branding in the B2B context—relationship-specific assets are a factor in the development of successful B2B brands. Compared to consumer brands, B2B brands require high levels of relational investments, such as customer participation and value co-creation. For example, by surveying a large scale of B2B small-to-medium sized firms in UK, Michaelidou, Siamagka, and Christodoulides (2011) observe that nearly 44% of them engage their customers via social networks and those engagements significantly contribute to the firms' branding success. The value co-creation process examined in this study enhances an understanding of the value of the brand as well as acts as a catalyst for additional sources of brand equity.

### 5.2. Managerial implications

Our findings suggest that firms that desire to develop brand orientations should promote strategic entrepreneurship among their top managers. In the B2B market, managers may not be motivated to invest in branding due to the lack of immediate returns on investment and the higher risk associated with branding activities (Leek & Christodoulides, 2011). In addition, some managers do not seem to understand the value of developing relationships in connection with developing B2B brands and fail to see that relationships are embedded in B2B brand assets (Davis et al., 2008). To overcome the risk-averse nature of strategic decision-making and fully discover the benefits of B2B branding, managers need to be more innovative, proactive, and competitive aggressive. That is, they need to be more entrepreneurial oriented.

Managers, who are interested in developing brand orientations should strive to develop marketing capabilities that enable their firms to obtain the necessary resources to promote the success of branding strategies. For example, managers need to enhance the firm's advertising and promotion efficiency/effectiveness so that the firm can better communicate with its customers to deliver the brand information (Erdem & Sun, 2002). In addition, managers need to use their marketing-related strategic resources to actively monitor market trends and to obtain valuable insights regarding dynamic customer needs (Jaworski & Kohli, 1993).

Third, to support the success of branding in business markets, managers need to efficiently use their strategic resources. However, they should also actively engage with their customers to co-create brand value. The results of our study suggest that the value co-creation process is an important mechanism that can translate the branding efforts into superior brand performance. As Chan, Yim, and Lam (2010) suggest, customers, who are deeply engaged in suppliers' business processes, better understand the suppliers' brand value and, thus, will

**Table 3**  
Structural model.

	Hypothesized model		Rival model	
	Path estimate (t-value)	R <sup>2</sup>	Path estimate (t-value)	R <sup>2</sup>
Brand orientation		0.29		0.29
(H1) Entrepreneurial Orientation → Brand orientation	0.38 (3.62)		0.38 (3.77)	
(H2) Marketing capability → Brand orientation	0.22 (2.40)		0.22 (2.42)	
Value co-creation		0.10		
(H4) Brand orientation → Value co-creation	0.32 (3.15)			
Brand performance		0.34		0.29
(H3) Brand orientation → Brand performance	0.32 (2.96)		0.40 (4.98)	
(H5) Value co-creation → Brand performance	0.25 (3.77)			
Control variable				
Service/nonservice → Brand performance	− 0.01 (0.05)		0.03 (0.40)	
Firm ownership → Brand performance	− 0.04 (0.50)		− 0.02 (0.28)	
Firm size → Brand performance	0.06 (0.79)		0.09 (1.23)	
Industry competition intensity → Brand performance	0.03 (0.53)		0.02 (0.28)	
Technology turbulence → Brand performance	0.21 (2.65)		0.23 (2.61)	

be more willing to add value to the relationship. Thus, managers are encouraged to share strategic planning with customers and involve customers in product design and innovation. Moreover, the results reveal that the effect size of this indirect path is smaller than the one of the direct path (0.08 vs. 0.32); thus, managers can focus more on utilizing the direct impact of brand orientation on enhancing firm performance if customer value co-creation requires costly resources commitment.

### 5.3. Limitations and future research

The present study has several limitations. First, like previous studies using survey research method, this study suffers from issues typically associated with self-reported data. For example, the respondents were asked to provide information regarding their customers' value co-creation activities, which could lead to biases associated with social desirability. In addition, the cross-sectional nature of our data provides limited references regarding causality. Thus, future studies can use other methods to confirm the research findings of our study. Second, branding is a strategic-level endeavor, which is resource intensive.

Therefore, the process could be affected by a variety of factors. This study only focused on two major factors that influence firms' brand orientations. Future studies can further explore this topic to uncover other mechanisms that provide additional explanatory power. For example, studies could explore whether factors, such as top management team composition and internal/external corporate governance systems influence firms' brand orientations. Third, though the firms included in our sample come from a variety of industry sectors, they lack geographic diversity, which could be a source of bias in our data. Future research could be used to confirm the external validity of our findings by using different samples. In addition, this study suggests that the relationships embedded in the B2B branding process are important. Future research could examine whether branding interacts other strategic initiative, such as customer relationship management efforts. Finally, given the mixed results in previous studies examining the link between B2B branding and firm performance, future research is encouraged to investigate if these mixed results are at least partially due to some missing mediating effects, such as the potential roles of brand image and corporate reputation.

### Appendix A. Descriptive statistics of the sample.

	Frequency (%)
Number of employees	
< 100	17.3
101–500	20.4
501–1000	12.9
1001–5000	20.4
5001–10,000	5.6
> 10,000	23.5
Industry sector	
Manufacturing	36.4
Information technology	14.2
Fast moving consumer goods	5.5
Financial services	6.8
Transportation	6.8
Construction and real estate	5.6
Others	24.7
Firm ownership	
State firm	34.0
Private firm	35.2
Joint ventures	6.8
Foreign direct investment	24.1

R&D intensity relative to sales	
< 1%	14.8
1–5%	27.8
6–10%	25.3
11–15%	13.6
16–20%	7.4
21–25%	1.9
> 25%	9.3

## References

- Aaker, J. L. (1997). Dimensions of brand personality. *Journal of Marketing Research*, 34(3), 347–356.
- Anderson, J. C., & Gerbing, D. W. (1988). Structural equation modeling in practice: A review and recommended two-step approach. *Psychological Bulletin*, 103(3), 411.
- Arnett, D. B., Laverie, D. A., & Meiers, A. (2003). Developing parsimonious retailer equity indexes using partial least squares analysis: A method and applications. *Journal of Retailing*, 79(3), 161–170.
- Avlonitis, G. J., & Salavou, H. E. (2007). Entrepreneurial orientation of SMEs, product innovativeness, and performance. *Journal of Business Research*, 60(5), 566–575.
- Backhaus, K., Steiner, M., & Lügger, K. (2011). To invest, or not to invest, in brands? Drivers of brand relevance in B2B markets. *Industrial Marketing Management*, 40(7), 1082–1092.
- Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, 17(1), 99–120.
- Baumgarth, C. (2010). “Living the brand”: Brand orientation in the business-to-business sector. *European Journal of Marketing*, 44(5), 653–671.
- Baumgarth, C., & Binckebanck, L. (2011). Sales force impact on B-to-B brand equity: Conceptual framework and empirical test. *The Journal of Product and Brand Management*, 20(6), 487–498.
- Bendixen, M., Bukasa, K. A., & Abratt, R. (2004). Brand equity in the business-to-business market. *Industrial Marketing Management*, 33(5), 371–380.
- Brislin, R. W. (1980). Cross-cultural research methods. *Environment and culture* (pp. 47–82). Springer US.
- Chan, K. W., Yim, C. K., & Lam, S. S. (2010). Is customer participation in value creation a double-edged sword? Evidence from professional financial services across cultures. *Journal of Marketing*, 74(3), 48–64.
- Chung, H. F., Wang, C. L., Huang, P. H., & Yang, Z. (2016). Organizational capabilities and business performance: When and how does the dark side of managerial ties matter? *Industrial Marketing Management*, 55, 70–82.
- Claro, D. P., & Claro, P. B. O. (2010). Collaborative buyer–supplier relationships and downstream information in marketing channels. *Industrial Marketing Management*, 39(2), 221–228.
- Core, J. E., Holthausen, R. W., & Larcker, D. F. (1999). Corporate governance, chief executive officer compensation, and firm performance. *Journal of Financial Economics*, 51(3), 371–406.
- Cretu, A. E., & Brodie, R. J. (2007). The influence of brand image and company reputation where manufacturers market to small firms: A customer value perspective. *Industrial Marketing Management*, 36(2), 230–240.
- Davis, D. F., Golicic, S. L., & Marquardt, A. J. (2008). Branding a B2B service: Does a brand differentiate a logistics service provider? *Industrial Marketing Management*, 37(2), 218–227.
- Day, G. S. (1994). The capabilities of market-driven organizations. *Journal of Marketing*, 58(4), 37–52.
- Day, G. S. (2011). Closing the marketing capabilities gap. *Journal of Marketing*, 75(4), 183–195.
- Deshpandé, R., Farley, J. U., & Webster, F. E., Jr. (1993). Corporate culture, customer orientation, and innovativeness in Japanese firms: A quadrat analysis. *Journal of Marketing*, 57(1), 23–37.
- Dess, G. G., Lumpkin, G. T., & Covin, J. G. (1997). Entrepreneurial strategy making and firm performance: Tests of contingency and configurational models. *Strategic Management Journal*, 18(9), 677–695.
- Doty, D. H., & Glick, W. H. (1998). Common methods bias: Does common methods variance really bias results? *Organizational Research Methods*, 1(4), 374–406.
- Duncan, T., & Moriarty, S. E. (1998). A communication-based marketing model for managing relationships. *Journal of Marketing*, 62(2), 1–13.
- Erdem, T., & Sun, B. (2002). An empirical investigation of the spillover effects of advertising and sales promotions in umbrella branding. *Journal of Marketing Research*, 39(4), 408–420.
- 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., & Evans, K. R. (2008). Influence of customer participation on creating and sharing of new product value. *Journal of the Academy of Marketing Science*, 36(3), 322–336.
- Fornell, C., & Larcker, D. F. (1981). Structural equation models with unobservable variables and measurement error: Algebra and statistics. *Journal of Marketing Research*, 18(3), 382–388.
- Grönroos, C. (2011). A service perspective on business relationships: The value creation, interaction and marketing interface. *Industrial Marketing Management*, 40(2), 240–247.
- Hambrick, D. C. (2007). Upper echelons theory: An update. *Academy of Management Review*, 32(2), 334–343.
- Hambrick, D. C., & Mason, P. A. (1984). Upper echelons: The organization as a reflection of its top managers. *Academy of Management Review*, 9(2), 193–206.
- Hankinson, P. (2002). The impact of brand orientation on managerial practice: A quantitative study of the UK’s top 500 fundraising managers. *International Journal of Nonprofit and Voluntary Sector Marketing*, 7(1), 30–44.
- Homburg, C., Klarmann, M., & Schmitt, J. (2010). Brand awareness in business markets: When is it related to firm performance? *International Journal of Research in Marketing*, 27(3), 201–212.
- Hulland, J. (1999). Use of partial least squares (PLS) in strategic management research: A review of four recent studies. *Strategic Management Journal*, 20(2), 195–204.
- Hult, G. T. M., Snow, C. C., & Kandemir, D. (2003). The role of entrepreneurship in building cultural competitiveness in different organizational types. *Journal of Management*, 29(3), 401–426.
- Hunt, S. D. (2010). Marketing theory: foundations. *Controversy, strategy, resource-advantage theory*. Armonk, NY: ME Sharpe.
- Jaworski, B. J., & Kohli, A. K. (1993). Market orientation: Antecedents and consequences. *Journal of Marketing*, 57(3), 53–70.
- Kalaianam, K., & Varadarajan, R. (2006). Customers as co-producers. *The service-dominant logic of marketing: dialog, debate, and directions. 2006. The service-dominant logic of marketing: dialog, debate, and directions* (pp. 166–179).
- Keh, H. T., & Xie, Y. (2009). Corporate reputation and customer behavioral intentions: The roles of trust, identification and commitment. *Industrial Marketing Management*, 38(7), 732–742.
- Keller, K. L. (1993). Conceptualizing, measuring, and managing consumer-based brand equity. *Journal of Marketing*, 57(1), 1–22.
- Kelley, S. W., Donnelly, J. H., Jr., & Skinner, S. J. (1990). Customer participation in service production and delivery. *Journal of Retailing*, 66(3), 315.
- Kumar, V., Bohling, T. R., & Ladda, R. N. (2003). Antecedents and consequences of relationship intention: Implications for transaction and relationship marketing. *Industrial Marketing Management*, 32(8), 667–676.
- Lambkin, M. C., & Muzellec, L. (2010). Leveraging brand equity in business-to-business mergers and acquisitions. *Industrial Marketing Management*, 39(8), 1234–1239.
- Leek, S., & Christodoulides, G. (2011). A literature review and future agenda for B2B branding: Challenges of branding in a B2B context. *Industrial Marketing Management*, 40(6), 830–837.
- Leek, S., & Christodoulides, G. (2012). A framework of brand value in B2B markets: The contributing role of functional and emotional components. *Industrial Marketing Management*, 41(1), 106–114.
- Li, Y. H., Huang, J. W., & Tsai, M. T. (2009). Entrepreneurial orientation and firm performance: The role of knowledge creation process. *Industrial Marketing Management*, 38(4), 440–449.
- Lindell, M. K., & Whitney, D. J. (2001). Accounting for common method variance in cross-sectional research designs. *Journal of Applied Psychology*, 86(1), 114–121.
- Lindgreen, A., Beverland, M. B., & Farrelly, F. (2010). From strategy to tactics: Building, implementing, and managing brand equity in business markets. *Industrial Marketing Management*, 39(8), 1223–1225.
- Low, G. S., & Fullerton, R. A. (1994). Brands, brand management, and the brand manager system: A critical-historical evaluation. *Journal of Marketing Research*, 31(2), 173–190.
- Lumpkin, G. T., & Dess, G. G. (1996). Clarifying the entrepreneurial orientation construct and linking it to performance. *Academy of Management Review*, 21(1), 135–172.
- Lumpkin, G. T., & Dess, G. G. (2001). Linking two dimensions of entrepreneurial orientation to firm performance: The moderating role of environment and industry life cycle. *Journal of Business Venturing*, 16(5), 429–451.
- Lyon, D. W., Lumpkin, G. T., & Dess, G. G. (2000). Enhancing entrepreneurial orientation research: Operationalizing and measuring a key strategic decision making process. *Journal of Management*, 26(5), 1055–1085.
- Markus, G., Mertens, D. P., & Murphy, R. O. (2005). Customers as good soldiers: Extending organizational citizenship behavior research to the customer domain. *Journal of Management*, 31(1), 415–433.
- Michaelidou, N., Siamagka, N. T., & Christodoulides, G. (2011). Usage, barriers and measurement of social media marketing: An exploratory investigation of small and medium B2B brands. *Industrial Marketing Management*, 40(7), 1153–1159.
- Michell, P., King, J., & Reast, J. (2001). Brand values related to industrial products. *Industrial Marketing Management*, 30(5), 415–425.
- Mittal, V., & Kamakura, W. A. (2001). Satisfaction, repurchase intent, and repurchase behavior: Investigating the moderating effect of customer characteristics. *Journal of Marketing Research*, 38(1), 131–142.



- Morgan, N. A., Vorhies, D. W., & Mason, C. H. (2009). Market orientation, marketing capabilities, and firm performance. *Strategic Management Journal*, 30(8), 909–920.
- Morgan, R. M., & Hunt, S. D. (1994). The commitment-trust theory of relationship marketing. *Journal of Marketing*, 58(3), 20–38.
- Noble, C. H., Sinha, R. K., & Kumar, A. (2002). Market orientation and alternative strategic orientations: A longitudinal assessment of performance implications. *Journal of Marketing*, 66(4), 25–39.
- Nunnally, J. (1978). *Psychometric methods*. New York, NY: McGraw-Hill.
- O’Cass, A., & Ngo, L. V. (2012). Creating superior customer value for B2B firms through supplier firm capabilities. *Industrial Marketing Management*, 41(1), 125–135.
- Ohnemus, L. (2009). B2B branding: A financial burden for shareholders? *Business Horizons*, 52(2), 159–166.
- Oliver, R. L. (2006). Co-producers and co-participants in the satisfaction process. In R. F. Lusch, & S. L. Vargo (Eds.). *The service-dominant logic of marketing: dialog, debate, and directions* (pp. 118–127). New York: M.E. Sharpe.
- Payne, A. F., Storbacka, K., & Frow, P. (2008). Managing the co-creation of value. *Journal of the Academy of Marketing Science*, 36(1), 83–96.
- Persson, N. (2010). An exploratory investigation of the elements of B2B brand image and its relationship to price premium. *Industrial Marketing Management*, 39(8), 1269–1277.
- Podsakoff, P. M., & Organ, D. W. (1986). Self-reports in organizational research: Problems and prospects. *Journal of Management*, 12(4), 531–544.
- Ramaswamy, V. (2011). It’s about human experiences... and beyond, to co-creation. *Industrial Marketing Management*, 40(2), 195–196.
- Ranjan, K. R., & Read, S. (2016). Value co-creation: Concept and measurement. *Journal of the Academy of Marketing Science*, 44(3), 290–315.
- Rao, V. R., Agarwal, M. K., & Dahlhoff, D. (2004). How is manifest branding strategy related to the intangible value of a corporation? *Journal of Marketing*, 68(4), 126–141.
- Rauch, A., Wiklund, J., Lumpkin, G. T., & Frese, M. (2009). Entrepreneurial orientation and business performance: An assessment of past research and suggestions for the future. *Entrepreneurship Theory and Practice*, 33(3), 761–787.
- Reid, M., Luxton, S., & Mavondo, F. (2005). The relationship between integrated marketing communication, market orientation, and brand orientation. *Journal of Advertising*, 34(4), 11–23.
- Reijonen, H., Hirvonen, S., Nagy, G., Laukkanen, T., & Gabrielsson, M. (2015). The impact of entrepreneurial orientation on B2B branding and business growth in emerging markets. *Industrial Marketing Management*, 51, 35–46.
- Spyropoulou, S., Skarneas, D., & Katsikeas, C. S. (2011). An examination of branding advantage in export ventures. *European Journal of Marketing*, 45(6), 910–935.
- Tynan, C., McKechnie, S., & Chhuon, C. (2010). Co-creating value for luxury brands. *Journal of Business Research*, 63(11), 1156–1163.
- Urde, M. (1999). Brand orientation: A mindset for building brands into strategic resources. *Journal of Marketing Management*, 15(1–3), 117–133.
- Urde, M., Baumgarth, C., & Merrilees, B. (2013). Brand orientation and market orientation—From alternatives to synergy. *Journal of Business Research*, 66(1), 13–20.
- Van Riel, A. C., De Mortanges, C. P., & Streukens, S. (2005). Marketing antecedents of industrial brand equity: An empirical investigation in specialty chemicals. *Industrial Marketing Management*, 34(8), 841–847.
- Vargo, S. L., & Lusch, R. F. (2004). Evolving to a new dominant logic for marketing. *Journal of Marketing*, 68(1), 1–17.
- Vargo, S. L., & Lusch, R. F. (2008). Service-dominant logic: Continuing the evolution. *Journal of the Academy of Marketing Science*, 36(1), 1–10.
- Vargo, S. L., & Lusch, R. F. (2011). It’s all B2B... and beyond: Toward a systems perspective of the market. *Industrial Marketing Management*, 40(2), 181–187.
- Vorhies, D. W., & Morgan, N. A. (2005). Benchmarking marketing capabilities for sustainable competitive advantage. *Journal of Marketing*, 69(1), 80–94.
- Vorhies, D. W., Orr, L. M., & Bush, V. D. (2011). Improving customer-focused marketing capabilities and firm financial performance via marketing exploration and exploitation. *Journal of the Academy of Marketing Science*, 39(5), 736–756.
- Walter, A., Auer, M., & Ritter, T. (2006). The impact of network capabilities and entrepreneurial orientation on university spin-off performance. *Journal of Business Venturing*, 21(4), 541–567.
- Wang, X., Arnett, D. B., & Hou, L. (2016). Using external knowledge to improve organizational innovativeness: Understanding the knowledge leveraging process. *Journal of Business & Industrial Marketing*, 31(2), 164–173.
- Wang, Y., Lee, J., Fang, E. E., & Ma, S. (2017). Project customization and the supplier revenue–cost dilemmas: The critical roles of supplier–customer coordination. *Journal of Marketing*, 81(1), 136–154.
- Wiklund, J., & Shepherd, D. (2003). Knowledge-based resources, entrepreneurial orientation, and the performance of small and medium-sized businesses. *Strategic Management Journal*, 24(13), 1307–1314.
- Wold, H. (1982). Soft modelling: The basic design and some extensions. *Systems under indirect observation, Part II* (pp. 36–37).
- Yi, Y., & Gong, T. (2013). Customer value co-creation behavior: Scale development and validation. *Journal of Business Research*, 66(9), 1279–1284.
- Yin Wong, H., & Merrilees, B. (2007). Multiple roles for branding in international marketing. *International Marketing Review*, 24(4), 384–408.
- Yoo, B., & Donthu, N. (2001). Developing and validating a multidimensional consumer-based brand equity scale. *Journal of Business Research*, 52(1), 1–14.
- Zahra, S. A., Sapienza, H. J., & Davidsson, P. (2006). Entrepreneurship and dynamic capabilities: A review, model and research agenda. *Journal of Management Studies*, 43(4), 917–955.
- Zhang, J., Jiang, Y., Shabbir, R., & Du, M. (2015). Building industrial brand equity by leveraging firm capabilities and co-creating value with customers. *Industrial Marketing Management*, 51, 47–58.