Developing Dynamic Capability through Partnership: The Role of Capabilities

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Abstract

Partnerships have been adopted by most organizations as a major technique to manage technological turbulence and dynamic market environments. The paper aims to investigate four key organizational capabilities in partnerships that are proposed to contribute to the improvement of the organization's agility—a dynamic capability for managing capricious environments. The role of trust between partnering organizations as a moderating variable is examined. A samples (n=300) from Chinese managers in manufacturing industries was used for this study. The results indicate the significant effects of market orientation and learning orientation on agility, as well as the moderator role of trust.

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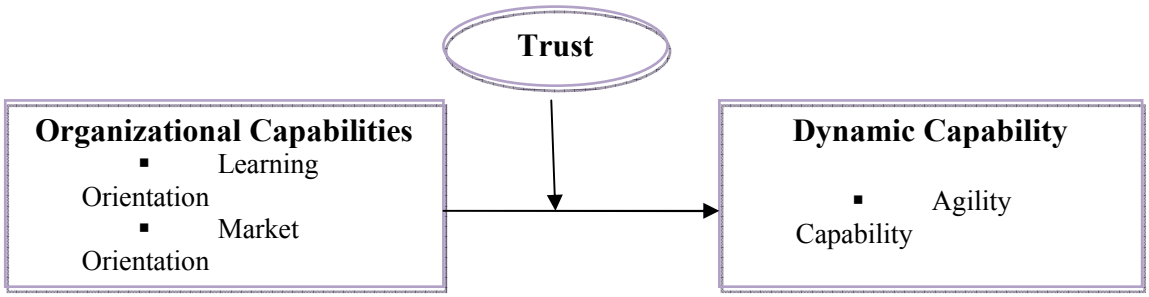
Introduction

The business environment has been described in the marketing literature as hyper turbulent, unpredictable (Sherehiy et al., 2007; Tan, 2003), hypercompetitive, dynamic, with discontinuities (D'Aveni, 1994). Environmental changes force acquired skills and capabilities to become obsolete rapidly or create new opportunities, both of which require firms to create, adapt and configure capabilities; firms need to refresh resources base to keep and maintain the advantages (Danneels, 2008; Ambrosini, Bowman, & Collier, 2009). Failure or slowness of building new capabilities endangers firm's prosperity or even survival (Small & Downey, 1996; Sharifi & Zhang, 1999).

Dynamic capability theory, extended from resource-based view, contends that dynamic capabilities underlie the source of sustainable competitive advantage in such environments; and refers to the firms' abilities to reconfigure, recombine and delete ordinary organizational resources to achieve a fit with the environment and strategic imperatives (Teece et al., 1997; Wang & Ahmed, 2007). Dynamic capability has received increasingly attention and its importance on firm superior performance in changing markets has been strongly and positively argued (Madhavaram & Hunt, 2008; Teece, 2007). However, there is still a need for more focused and empirical work, such as the links between organizational capabilities and dynamic capability (Easterby-Smith, Lyles & Peteraf, 2009). This study is looking into this research gap, investigation the influences of four organizational functional capabilities on one essential dynamic capability—agility. One of the most effective attributes of being agile in changing markets is to build effective partnerships (Yusuf et al., 1999; Doz & Kosonen, 2008), but 'the how question' has not been systematically conceptualized or empirically grounded. To cover this, this research seeks to examine the implications of organizational capabilities on the development of agility under long-term partnerships context, with trust as a moderator in the development process.



The paper is organized as follows: first, the conceptual framework is presented. Second, relevant literatures and hypotheses are presented, followed by a discussion of methodological issues. Finally, the results and discussion are presented with limitations of the study and its potential implications for managers and academics.

Literature Review

Dynamic capability Dynamic capabilities are the capacity of a firm to 'purposefully create, extend, or modify its resource base' (Helfat et al., 2007, p.4). A number of previous studies have shown that environmental turbulence, encapsulating the idea of continuous, uncertain

and potentially disruptive change, both internal and external, is the key driver for the development of firm dynamic capabilities, for example agility (Vazquez-Bustelo, Avella & Fernandez, 2007; Gunasekaran & Yusuf, 2002). Agility is considered as an essential dynamic capability that refers to adjust and change quickly and effectively (Sherehiy et al., 2007; Adeleye & Yusuf, 2006). Some important attributes of agility emphasized in all definitions include: speed, effective responsiveness; proactiveness; and availability of slack resources (Celuch et al., 2007; Zhang & Sharifi, 2007). Speed is the firm's ability to accomplish tasks in the shortest possible time**,** such tasks includes quick new product development, fast operation, quick learning of new technology, and fast adaptation to change, etc. (Sherehiy et al., 2007). Responsiveness is the ability to identify changes and opportunities, respond reactively or proactively to them, and recover from them (Sharifi & Zhang, 1999). Proactiveness is the capability to act proactively, taking initiative in improving current circumstances or creating new favourable ones (Nasution & Mavondo, 2008). Organizational slack is defined by Bourgeois (1981, p. 30) as a cushion of actual or potential resources, which firms can use to initiate changes in strategies for environment adapting; they are accumulated for pursuing market and competitive opportunities in the future (Yang et al., 1992).

Organizational capabilities Four organizational capabilities are identified from the literature as significant functional capabilities for firm's competitive advantages. Market orientation has been defined as an organizational culture that creates the necessary behaviours for understanding and fulfilling customers' expressed needs (Narver & Slater, 1990), and also latent needs (Slater, 2004). The concept is focusing continuously on discovering new opportunities for target-customers, especially under dynamic competitive market (Narver et al., 2004). It plays critical role in new product development, information dispersion, social network building, and functional integration (Bruni & Verona, 2009), all of which contributes to agility (Zhang & Sharifi, 2007; Doz & Kosonen, 2008). Thus, it is addressed
H1: Market Orientation is positively associated with Agility.

Learning orientation "is comprised by the continually evolving knowledge stocks existing in individuals, groups and the organization, which flow to continuously exploit and explore knowledge in accordance with the environmental conditions" (Prieto & Revilla, 2006, p.501). Knowledge stocks, improved by deliberate learning mechanisms, reflect managerial decision and facilitate the process of creating new processes and routines (Zollo & Winter, 2002). Learning allows the transfer and accumulation of tacit knowledge in partnerships as well, which further provides opportunities to develop agility. Thus, it is addressed:
H2: Learning Orientation is positively associated with Agility.

Managerial capability is innate and learned abilities, and expertise of managers in a firm (Harris & Helfat, 1997; Castanias & Helfat, 2001; Van Assen, 2000a). Studies have found the positive effect of managerial capability on the development of dynamic capability (Helfat & Lieberman, 2002; King & Tucci, 2002). Management team periodically analyses the market situation and when they perceive any opportunities or threats, operational processes are designed and implemented. Dynamic capabilities can be created because 'management provides a vision for processes aimed at shaping the dynamic capabilities' (Easterby-Smith, Lyles & Peteraf, 2009, p. s4). Thus, it is addressed
H3: Managerial Capability is positively associated with Agility.

Manufacturing capability is a multifaceted concept and implies cost, quality, delivery, and flexibility, which has the potential to support and shape corporate strategy (GroBler & Grubner, 2006). It relates to the capability of innovation and new product development, as

well as the ability to search for new opportunities, and new market entry (McKelvie & Davidsson, 2009; King & Tucci, 2002), all of which leads to agility. Thus, it is addressed
H4: *Manufacturing Capability is positively associated with Agility.*

Trust In economic exchange, trust implies a general expectation of good faith efforts by parties to honour commitments, to be honest in negotiations, and to decry opportunistic behaviour (Hosmer, 1995). Trust is argued to moderate the effect of functional capabilities on the development of agility in partnerships. First, trust is regarded as one of the most widely acknowledged means for governing and coordinating inter-organizational exchange (Morgan & Hunt, 1994; Jap & Anderson, 2003). When trust is high, more resources from partner firms are likely to be accessed, integrated and utilized for management objectives than in a low trust partnership. Richer firm capability base leads to development of agility more effectively. Second, trust is a key factor to make cooperation smooth by alleviating the functional conflicts, facilitating mutual understanding and bilateral communication (Cullen, et al., 2000; Voss et al., 2006). Effective communication provides opportunities for effective learning and tacit knowledge transfer (Yli-Renko et al., 2001); therefore improves knowledge base, which is important for developing dynamic capabilities. Thus, the hypotheses are stated as:
H5: Trust is positively associated with Agility.
H6: Trust moderates the relationship between Market Orientation and Agility.
H7: Trust moderates the relationship between Learning Orientation and Agility.
H8: Trust moderates the relationship between Managerial Orientation and Agility.
H9: Trust moderates the relationship between Manufacturing Orientation and Agility.

Research Methodology

Inspired from the typologies of strategic alliances presented by Das & Teng (2000), the long-term partnership defined in this study includes: (1) long-term sourcing agreements (major customer or major supplier), (2) joint R&D, (3) joint marketing and promotion, and (4) joint manufacturing. The unit of analysis is individual manufacturing firm in long-term partnership where at least one partner is a Chinese firm. Senior managers were selected as respondents. Mail-out questionnaires were employed in seven manufacturing provinces in China, including major cities representing each part of China. A usable sample of 300 was received representing a 35% response rate.

Measures Market orientation measures were adopted from Narver & Slater's (1990). The 13 measures included customer orientation, competitor orientation, and inter-functional orientation three factors. In Learning orientation, Nasution & Mavondo (2008)'s measurement items were employed covering three dimensions: shared vision, commitment to learn, and open-mindedness, which is previously developed by Sinkula et al. (1997). Scales of managerial capability were derived from the Carmeli & Tishler's (2004), which were originally adapted from Hitt & Ireland (1985). Manufacturing capability, adapted from Li (2000) and Größler & Grübner (2006), consisted of nine measures in two dimensions: adaptability and cost. For agility, the measures of proactiveness and slack resources were adopted from Nasution & Mavondo (2008) and Danneels (2008). Since there is not suitable existing measure for responsiveness and speed, five items developed for each of them were rooted from previous literature (Hult, Jr & Slater, 2005; Breu et al., 2001; Lim Su Kiat, 2004) and results from exploratory interviews analysis,.

Exploratory factor analysis was used to determine underlying dimensions for variables. In all cases, the results showed factor loadings of over 0.65. Confirmatory factor analysis was

employed by means of measurement model. Results showed all standardised factor loadings were statistically significant and exceeded 0.5, demonstrating accepted convergent validity. Cronbach's α coefficient then were calculated and presented in Table 1, indicating well accepted data reliability. Discriminant validity was assessed using the procedure suggested by Fornell & Larcker (1981). Results showed accepted discriminant difference for all variables.

Results and Discussions

Table 1 shows the correlations and reliabilities of the constructs in the model. In Table 2 the results of hypothesis testing are presented. In Model 1 Market orientation is significantly related to marketing agility ($p<.001$). Learning orientation is significantly related to marketing agility ($p<.01$). The results suggest that managerial capability and manufacturing (efficiency) are not directly related to marketing agility. Interestingly, trust is not significantly related to agility. Model 2 incorporates the interaction terms with trust as the moderator. The variance explained increased by $\Delta R2=.015$ and is significant at $p<.05$. The regression coefficients changed dramatically: market orientation became non-significant, learning orientation remained significant, trust still non-significant but negative. The interaction terms testing the hypotheses were significant for market orientation ($p<.05$), negatively for learning orientation ($p<.05$) but not for managerial orientation.

Table 1. Correlations, Reliabilities of the variables in the Model

	n=300	1	2	3	4	5	6
1	Market orientation	***0.932***					
2	Learning orientation	0.488	***0.941***				
3	Managerial capability	0.540	0.668	***0.885***			
4	Manufacturing capability	0.477	0.540	0.618	***0.891***		
5	Trust	0.532	0.402	0.418	0.351	***0.881***	
6	Agility	0.776	0.524	0.547	0.481	0.486	***0.936***
	Mean	5.335	5.274	5.609	5.449	5.845	5.331
	Standard deviation	0.895	0.986	0.816	0.900	0.870	0.857

Note: *The diagonal (in italics and bold) shows the Cronbach's α for each construct*

To further gain insight into the significant interactions an examination of the slopes using the approach suggested by Aiken and West (1991) for continuous variables was conducted. The slope investigation indicated that for market orientation trust positively moderated the relationship with agility. This means when trust is high the relationship between market orientation and agility is strong ($\beta=.7211$, $t=14.05$, $p<.0010$) compared to when trust is low ($\beta=.65$, $t=11.11$, $p<.001$ see bottom of Table 2). The same pattern of results is observed for learning orientation. These results indicate that ignoring interactions may lead to simplistic conclusions of the importance of trust and may over-estimate the contributions of variables.

Table 2: Regression models for the antecedents of Marketing Agility

Variables	Model 1		Model 2	
	β	t-value	β	t-value
H1: Market Orientation	0.622***	13.379	-0.644	-1.103
H2: Learning Orientation	0.118**	2.402	1.072**	2.557
H3: Managerial Capability	0.074	1.396	-0.924	-1.471
H4: Manufacturing Capability	0.055	1.186	0.507	1.322
H5: Trust	0.058	1.361	-0.963	-1.763
H6: Trust x Market Orientation			2.014*	2.134
H7: Trust x Learning orientation			-1.405*	-2.284
H8: Trust x Managerial Capability			1.768	1.628
H9: Trust x Manufacturing Capability			-0.713	-1.223
R^2	0.640		0.656	
Adj R^2	0.634		0.646	
F-Ratio	104.454***		61.565***	

***=p<0.001, **=p<0.01, *=p<0.05

Table 3: Investigation of Slopes of Market and Learning Orientation at different levels of Trust

	Low (t-value)	Medium (t-value)	High (t-value)
Market Orientation	0.6530 (11.1114)	0.6870 (16.5933)	0.7211 (14.0508)
Learning Orientation	0.3103 (5.4074)	0.3413 (7.7685)	0.3724 (6.4487)

Conclusions

In this paper, we identified the four key organizational capabilities, decomposed their effects on agility, and examined the moderating role of trust in such relationships. The result showed the combination of four capabilities has positively significant impacts on agility. Market orientation and learning orientation are the most critical input to agility in partnerships. Trust moderates the impacts of capabilities on agility, but only positively for market orientation and negatively for learning orientation. That means in partnerships with high level of trust, the contribution of market orientation and learning orientation, either positive or negative, to the development of agility is higher than in partnerships with lower trust. Very surprisingly, data from Chinese manufacturing industries showed that managerial and manufacturing capabilities does not significantly influence firm agility no matter trust exists or not. This study has several academic contributions in terms of empirically examining dynamic capability, its operationalisation and the relationship between ordinary capabilities and dynamic capabilities. It extends studies in dynamic capability theory into inter-organizational partnerships. Moreover, the study contributes to the literature related to business issues in China.

This research also offers implications that could add to our understanding of capabilities and their contribution to firm agility. According to the results, in a long term partnerships, managers should allocate resources investment focused on market orientation for developing agility rapidly and effectively, meanwhile, control the negative effects of learning orientation on the development of agility. Furthermore, managers should invest resources in building and maintain high trust in the partnership, to improve agility more effectively than in low trust cooperation. This study has tested one moderator—trust, which is only one aspect of the partnership connection, in the cooperation process. Other factors, such as type of partnership,

length of the partnership, conflict management, commitment, *etc.*, may indicates various degree of influences on the capabilities' contribution to dynamic capability development.

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