
**COMPETITIVE DYNAMICS IN AN EMERGING ECONOMY:
COMPETITIVE PRESSURES, RESOURCES, AND THE SPEED OF ACTION**

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Abstract

In fast-paced markets, the speed of action is critical to gaining competitive advantage. Yet, who will act quickest to rise to emergent challenges and opportunities? We investigate this question of competitive dynamics by combining behavioral and resource-based theories of the firm to explore drivers particularly relevant in an emerging economy context. Our empirical study based on a survey in China finds that strategic growth actions are taken faster by firms with underperforming market share, strong technological capabilities and strong leader strategic competences. In contrast, strategic joint actions with other businesses are employed more speedily by firms under financial pressures but with strong leader strategic competences.

Keywords: competitive dynamics; resource based view; behavioral theory of the firm; speed of action; China

INTRODUCTION

In fast-paced emerging economies, flexible and timely strategic engagement in the market is critical to gaining competitive advantage. The more volatile the institutional environment and the faster the rate of growth, the more critical is the speed of action as a competitive parameter (Chang and Park, 2012; Gadiesh, Leung, and Vestring, 2007). Hence, the dynamic interaction between rivals, known as competitive dynamics, is important to explain the success and failure of firms in emerging economies (Chen and Miller, 2012). Yet, despite the importance of competitive speed in such contexts, few researchers have investigated competitive dynamics in China or other emerging economies (Cui, Meyer, and Hu, 2014). We address this gap by exploring the question: What drives firms to take speedy strategic actions in an emerging economy?

We propose that this question can best be explained by combining two lines of theory. The behavioral theory of the firm (BTF) provides insights into decision makers' motivation to take actions, while the resource-based view (RBV) points to resources that enable firms to take actions. The RBV has been frequently applied to competitive dynamics because firms need to mobilize resources to engage in competitive actions (Grimm, Lee, and Smith, 2006; Sirmon, Hitt, and Ireland, 2007). However, while resources *enable* competitive behavior, they do not necessarily *trigger* actions; sometimes firms with ample resources prefer their status quo over taking the risk of a strategic change (Audia, Locke, and Smith, 2000).

Actions are often triggered by pressures that decision makers perceive in their external environment (Cyert and March, 1992). Specifically, the BTF suggests that firms performing below relevant benchmarks or below decision makers' aspiration level are more motivated to initiate strategic change (Audia, et al., 2000; Baum, Rowley, Shipilov, and Chuang, 2005; Park, 2007). In contrast, past success can lead to greater strategic persistence (Ferrier, 2001; Pacheco-De-Almeida, 2010). This behavioral perspective is particularly critical for emerging economies where decision makers often have to act without full information and rigorous analysis, which

reduces the rationality of managerial decision making.

Not all actions are the same. We distinguish two types of strategic actions: *growth actions* aim to enhance a firm's position in its markets, for instance by product launches or market entries. *Joint actions* create partnerships or mergers and acquisitions (M&As) with other firms and hence are the basis for new, joint positions. We argue that these types of actions are triggered by different types of performance pressures: firms facing set-backs in their pursuit of market share likely take growth actions to strengthen their market position, while firms with low profitability may lack the financial strength to take actions alone, and thus are likely to take joint actions to improve their financial position. Both types of actions are facilitated by firm resources, such as leader strategic competences. However, joint actions may be particularly suitable for firms that need to fill resource gaps.

Our analysis contributes to the literature in three ways. First, we contribute to the competitive dynamics literature (Chen, 1996) by demonstrating that combining behavioral- and resource-perspectives adds explanatory power to the analysis of strategic actions. In doing so, we extend the resource orchestration framework (Ndofor, Sirmon and He, 2011; Sirmon, et al., 2007) by adding competitive pressures as driver of strategic actions, and by incorporating leader strategic competences as a critical resource. Second, we expand the concept of strategic actions by differentiating growth actions and joint actions, and by explaining how different aspects of past-performance and capabilities drive these two types of actions. Third, we contribute to the strategy research in emerging economies (Wright, Filatotchev, Hoskisson, and Peng, 2005; Xu and Meyer, 2013) by analyzing a phenomenon, the speed of strategic action, that is particularly important for business success in such contexts, yet hardly studied in emerging economies (Chen and Miller, 2012).

COMPETITIVE DYNAMICS WITH CHINESE CHARACTERISTICS

The competitive environment in emerging economies such as China is characterized by high internal and external uncertainty (Luo, 2003; Wright et al., 2005). Internal uncertainty arises from the reduced possibility to secure that business partners and employees act in the firm's best interest due to, for example, weak

contract enforcement (Wang, Tsui, Zhang, and Ma, 2003). External uncertainty arises not only from macroeconomic volatility, frequent regulatory changes, and hard-to-predict law enforcement practices (Feldman, 2013; Peng, Wang, and Jiang, 2008), but from the frequency of entry and exit of competitors and changes in competitors' strategies. This fast pace of change intensifies competitive challenges: *first*, industry structures tend to be less stable, which may incur aggressive and disruptive competition (*e.g.*, price wars) (Gadiesh, et al., 2007; Williamson and Zeng, 2004); *second*, high market growth encourages firms to constantly expand their capacity to stay ahead of the competition (Bhattacharya and Michael, 2008; Ghemawat and Hout, 2008). Firms have to react more quickly to new opportunities and challenges to capture growth and profit potentials. Thus, the speed of strategic action is a key determinant of a firm's position in such markets (Chang and Park, 2012).

These uncertainties shape strategic decision-making processes. The RBV, like other economics based theories, assumes that firms make rational decisions in pursuit of efficiency and profitability (Peteraf, 1993). However, rational decision making is constrained when external uncertainty increases bounded rationality (Simon, 1957), and internal uncertainty increases bounded reliability (Verbeke and Greidanus, 2009). In other words, decision makers are unable to make fully rational decisions within the available time due to incomplete information, cognitive biases and causal ambiguity (Lippman and Rumelt, 1982; Peteraf, 1993). This has two consequences. First, we need to consider drivers of decision making under conditions of constrained rationality (Cyert and March, 1992; Verbeke and Greidanus, 2009). The BTF emphasizes that firms can only achieve "satisficing" (rather than "maximizing") results due to limitations in human decision making, which increase the more uncertain, volatile and competitive a market is (Cyert and March, 1992; Klossek, Meyer and Nippa, 2014). Thus, we need to consider actual or perceived performance pressures arising from actual-versus-aspiration performance gaps. Second, to deal with these uncertainties and complexities, firms need capabilities that enable strategic and organizational flexibility to respond to changes (Tsui and Lau, 2002; Uhlenbruck,

Meyer, and Hitt, 2003). One such capability is the competence of top managers, which critically shapes the speed of firms' actions because top managers have to make decisions with partial information (Luo, 2003).

Hence, the speed of strategic actions can be critical to gaining market leadership in an emerging economy, and hence we focus on the speed of strategic actions as our focal construct. However, the complexity of the competitive environment places additional demands on leaders, which suggests not only that we need to incorporate their capabilities in our framework, but that decision making processes under conditions of bounded rationality and bounded reliability need to take a central place in our theoretical arguments.

STRATEGIC ACTIONS

The competitive dynamics literature conceptualizes strategy as a repertoire of actions used by firms to enhance their market positions (Ferrier, Smith, and Grimm, 1999; Yu and Cannella, 2007). A strategic action is defined as “externally directed, specific, and observable competitive move initiated by a firm to enhance its relative competitive position” (Smith, Ferrier, and Ndofor, 2001: 12). We focus on action speed, which describes the speed by which a firm takes strategic actions, relative to the speed of its main rivals (Chen and Hambrick, 1995).

However, not all actions are alike; they serve different objectives and require different resources (Cui et al., 2014). We examine two types of strategic actions: growth actions and joint actions. Some actions are designed as foundation for organic growth, which we call growth actions. These actions aim to enhance market positions by creating growth opportunities through investing in new products and services, or entering new markets. When facing pressure on their market share, firms would want to improve product offerings and/or push into more markets. However, the implementation of growth actions requires technological and leadership capabilities.

Joint actions pool the resources of two or more partners through alliances or by engaging in M&As. Organizations that lack critical resources may use a partnership or an M&A to fill internal resource gaps (Hennart, 1988; Wang and Zajac, 2007), which lowers the risk compared to internal development of resources. In particular,

when facing financial pressures, firms may team up with others to fund investment requirements. However, managing joint actions so that they benefit firm strategically requires leader strategic competences.

Growth actions and joint actions can complement or extend each other's domain as joint actions can be used as a means to facilitate growth actions, especially for firms that lack the ability to finance such actions on their own. However, joint actions may aim for longer term strategic goals beyond what growth actions are intended to achieve. The distinction of growth and joint actions thus enables a more fine-grained examination of the relationships between actions and their drivers. Specifically, we will argue that firms pursue growth or/and joint actions in response to performance pressures and internal resource availability.

THEORY AND HYPOTHESES

BTF and strategic actions

The BTF acknowledges that actual decision making and risk taking behaviors deviate from the rational choice (March and Shapira, 1987). Specifically, managers' risk taking behaviors are asymmetric to performance below and above their aspiration levels. Potential performance improvements are valued higher when operating below the aspiration level than while above that threshold. Managers thus are more inclined to take risk to recover from unsatisfactory performance than to pursue new opportunities when already performing satisfactorily (Bromiley, 1991; Cyert and March, 1992).

These postulates of the BTF suggest that firms' past performance directly impacts on current competitive behaviors. For example, Ferrier (2001) argues that performance *below* expectations motivates decision makers to initiate competitive moves, a proposition empirically supported with respect to strategic moves such as market entry (Greve, 1998), process and technological innovations (Nohria and Gulati, 1996), and inter-firm collaborations (Baum et al., 2005). In contrast, managers in well performing companies tend to act more conservatively to protect their competitive *status quo* rather than to create competitive complications (Audia et al., 2000). Success may also breed complacency and dependence on established organizational

routines and thus inhibit new strategic actions (Miller, 1994).

As managers respond to underperformance, they tailor their strategic actions to remedy the specific aspect of performance they are lagging. A primary indicator of competitive performance is market share. In response to declining market share, firms' priority will be to quickly regain market share or to create positions in new markets. To this end, faster launches of new products or market expansions provide a basis to grow a firm's sales before competitors become entrenched in the market. Hence, firms experiencing pressures on their market share have been observed to react by entering new markets (Chen, Katila, McDonald, and Eisenhardt, 2010; Greve, 1998). Firms may also address market share pressures by working with partners to quickly fill in gaps such as lack of local market knowledge and technical know-how. For example, leapfrogging competitors by forming alliances and M&As has been effective means to (re)gain market power in emerging markets (Meyer, Estrin, Bhaumik, and Peng, 2009). Hence, we propose:

H1a: The better the relative market share performance, the slower the firm is in undertaking growth actions.

H1b: The better the relative market share performance, the slower the firm is in undertaking joint actions.

The other major dimension of performance is profitability, for example in terms of return on assets. Financial underperformance requires firms to turn around their business while likely facing financial constraints on investment. This dual challenge may limit firms' growth activities, but it can be addressed through partnerships or M&As because they enable leveraging the partner's resources (*e.g.*, Beamish and Banks, 1987). Joint actions provide a relatively fast approach to enhance the market position of each partner (if they compete in different markets), or to create a joint position that is more profitable than that of either individual firm (if they compete in the same markets). Hence, by working with partners, firms can move swiftly to create profit opportunities while overcoming their financial constraints (Baum et al., 2005). Thus, financial distress has been observed to trigger firms to form alliances, or to become a target or promoter for M&A (Chen, 2008; Miller and Chen, 1994). In

contrast, firms that are performing well in financial terms not only feel less urgency to take actions but more likely to take their time to raise funds for actions they wish to undertake. Hence, we propose:

H2: The better the relative financial performance, the slower the firm is in undertaking joint actions.

RBV and strategic actions

Firms need resources to be able to initiate actions. Earlier research in the RBV tradition has focused on technological resources, but we suggest that in a volatile market leader strategic competences are of particular importance.

Technological capabilities refer to a firm's ability to employ resources such as patents, technical experts and technical knowledge (Afuah, 2000). Technological capabilities are difficult to imitate because they are normally embedded in the routines and practices of a firm (Kogut and Zander, 1992), and hence can only be shared through direct collaboration (Ahuja and Katila, 2004). However, technological capabilities are subject to obsolescence as technological progress enables competitors to catch up. Therefore, technologically leading firms have to continuously innovate both products and processes (Atuahene-Gima, 2005; Zhou and Wu, 2010), and they have a limited time window during which they can exploit technological advances in the market.

Technological capabilities thus increase new product speed (Moorman and Slotegraaf, 1999) and enable complex competitive behaviors that differentiate a firm from its competitors (Ndofor, et al., 2011). Due to on average weak technological capabilities in Chinese firms, those Chinese and foreign firms possessing even marginally stronger technological capabilities are able to engage in more active competitive behavior (Yam, Guan, Pun, and Tang, 2004). Especially in emergent industries, technological capabilities enable firms to take actions faster to benefit from disruptive innovation and take industry leadership (Immelt, Govindarajan, and Trimble, 2009). At the same time, the potential emergence of imitators creates pressures not to delay new product introductions. Technological capabilities thus enable speedy actions that expand the product- and/or market-scope of a firm, and

they facilitate joint actions by making the focal firm a more attractive partner (or target):

H3a: The stronger a firm's technological capabilities, the faster the firm is in undertaking growth actions.

H3b: The stronger a firm's technological capabilities, the faster the firm is in undertaking joint actions.

Speedy strategic actions require managerial capabilities to design and implement these actions (Adner and Helfat, 2003). Top management capabilities are particularly important in highly volatile market environments because leaders not only have to manage resources effectively but have to respond timely to environmental changes to capture opportunities and circumvent threats (Sharma and Vredenburg, 1998; Sirmon et al., 2007). We focus on leader strategic competences, which we define as leaders' ability to assess market trends and to timely develop strategies to capture emergent opportunities.

Leader strategic competences enable risk-taking, proactiveness, and creativity (Luo, 2003), which are particularly critical for firms facing frequent institutional changes and intense competition. In China, such an environment has cultivated leaders who not only shape their company but their industry (Tsui and Lau, 2002). While many business leaders in Western countries have obtained business school training and accumulated professional experiences in structured organizational systems, Chinese leaders often lack systematic management training. But their business acumen and networks, extensive local knowledge and adventurous spirits (under high uncertainty) have enabled them to grab opportunities faster and utilize minimal resources efficiently (Tan and Tan, 2005).

Leadership capabilities are especially pivotal in high-power distance contexts where authoritarian decision-making dominates over participative decision-making, as is common in Chinese organizations (Bond and Hwang, 1993). Authoritarianism asserts absolute authority and control over subordinates, assigns leaders central positions in organizations (Farh and Cheng, 2000), and thereby facilitates quicker decisions because decision-making processes are less complex and time-consuming.

However, this also implies that middle-level managers are less involved in the assessment of the competitive environment and in strategic decision making. Hence, the quality of decisions depends to a higher degree on the top leadership teams' acumen and capabilities. In summary, both the volatile external environment and the typically authoritarian organizational structure suggest a central role of leader strategic competences to speedily implement strategic actions in an emerging economy. We propose that:

H4a: The stronger a firm's leader strategic competences, the faster the firm is in undertaking growth actions.

H4b: The stronger a firm's leader strategic competences, the faster the firm is in undertaking joint actions.

METHODOLOGY

Research setting

China provides an interesting empirical field to study competitive dynamics because of its highly volatile market environment (Luo, 2003). China's economic growth has evolved with an incomplete institutional system that creates uncertainty and dynamism (Chang and Park, 2012; Luo, 2007). Within such an environment, managers make decisions under incomplete information and high uncertainty over decision-making outcomes (Dess and Beard, 1984; Eisenhardt, 1989). Compared with mature market economies, the Chinese market is large and offers promising growth prospects and hence ample opportunities for a large number of companies (Ghemawat and Hout, 2008). The large number of actual and potential competitors however creates intense competition that requires firms to constantly employ strategic actions to remain competitive.

Within this environment, we have selected industries where external uncertainty was likely to be high. To be included, the industry, first, had to be characterized with "free" competition. In other words, there was little government regulation in the industry that would suppress competition. Second, the industry structure could not be a monopoly or oligopoly. This latter criterion ensured that there was potential for intense competition on the market. Based on these criteria, we selected the following

industries: beauty and personal care, food and beverages, machinery, medical devices, consumer appliances, computers, automotive, and retail.

Sample and data collection

To obtain first-hand information on firm capabilities and strategic actions in a context where archival data are scarce, we conducted a self-reported survey of top managers in 2012. This approach enabled us to capture the relative strengths and weaknesses of firm capabilities and actions by asking the respondents to assess their company against the major rival (*i.e.*, a pair-wise comparison). The survey data are supplemented with archival data from the Oriana and Osiris databases, which comprise respectively non-listed and listed companies in China.

Since responses to mail surveys are typically low in China (Li and Miller, 2006), we utilized participants and alumni resources of CEIBS, the leading business school in China, which had one of the largest Executive MBA (EMBA) and Executive Education programs in Asia with more than 10,000 alumni. The respondents were senior managers who were decision-makers of the focal firms. A majority of them were President/Chief Executive Officer (CEO), Vice President/Chief Finance Officer (CFO)/Chief Operation Officer (COO), board member, chairman, or founder.

We first developed the questionnaire in English. Two independent translators (one of them being an author of this research) translated it into Chinese. The translators discussed each inconsistency until they reached an agreement. Prior to the survey, we conducted a pilot test to confirm the face and construct validity of the items on the questionnaire with 10 senior managers and middle-level managers. Based on their feedback on the design and wording of the items, we improved the questionnaire.

We sent the survey to senior managers working in 978 firms in the selected industries. To enhance responses, we contacted two people in each organization whenever possible. Hence, we contacted a total of 1262 individuals. We addressed the survey respondents with a personalized cover letter which promised to provide a complimentary summary of the results to the respondents. We sent two rounds follow-up reminders every two weeks and followed up by phone calls which helped to enhance responses. We compared the earlier and later responses on each variable and

did not find significant differences. We have also compared responding and non-responding firms on firm size, age and sales using the t-tests and found that all t-statistics were insignificant.

We received questionnaires from 127 firms for which we also have performance data in the Oriana and Osiris databases. Due to missing values for 17 firms, we obtained 110 complete observations with full secondary information to form our research sample. Among these 110 firms, 83 percent had more than 500 employees, 87 percent had annual operating revenues of more than RMB 100 million. 75 percent were Chinese firms, and 25 percent were foreign firms. 42 percent were publically listed, and the remaining 58 percent were not listed. Among the Chinese firms, 23 percent were state-owned enterprises (SOEs). Hence, the sample provides a cross-section of businesses in China, with good representation of medium to large firms. As prior studies showed that larger firms are more likely to engage in active competitive behavior, our construction of the sample with larger firms is appropriate.

Dependent variables

Following Ferrier, et al. (1999), we asked the respondent to aggregate each type of firm actions of the given year (2011) to enable us to conduct the analysis on a firm-year level of analysis. This is appropriate because firms may pursue a set of interconnected actions several times over a certain period. Our dependent variables have been derived from a previously validated questionnaire instrument by Chen, Lin, and Michel (2010). We consider *speed of strategic action* for each of five actions, including three items related to growth actions (introducing new product, introducing new service, market entry or market expansion) and two items related to joint actions (establishing alliance or cooperation, engaging in M&A).

The factor analysis of the five items using varimax rotation generated distinct factors for growth and joint actions. In other words, forming an alliance or an M&A involves interacting with external organizations which may be in nature different from growth actions. Accordingly, our measures capture action speed of two types of actions: (1) growth actions, (2) joint actions. We examine aggregated measures such as growth actions and joint actions, an approach supported by our confirmatory factor

analysis (CFA) discussed below (see Table 1 for factor loadings).

*** *Insert Table 1 about here* ***

Independent variables

Following the BTF literature, we measure past performance of the focal firm relative to its industry peers (Bromiley, 1991; Greve, 2003). This is the most appropriate approach because strategic actions target competitors in the industry, and managers themselves are often assessed against peer groups of managers. Following Ferrier (2001), we measure *relative market share performance* by the deviation of the focal firm's change in market share (from 2008 to 2009) from the change in industry median (from 2008 to 2009), using the median market share in the industry as the relevant reference point. Following Ferrier (2001) and Lant, Milliken, and Batra (1992), *relative financial performance* is based on accounting data – return on total assets. Specifically, we measure it by the deviation of the firm's ROTA from the industry median in 2009. Both measures were calculated using data from the Oriana and Osiris databases, and lagged by two years to account for the fact that firms would need time to plan and implement after obtaining information of their previous performance.

We rely on previously validated measurement items to capture capability-based variables and some control variables (Table 1), all derived from the survey questionnaire. We adopted from Zhou and Wu (2010) a five-item variable to measure *technological capabilities* of the firm vis-à-vis their major competitor in the industry. *Leader strategic competences* captured the respondents' assessment of the capabilities of the top management team in formulating strategy and adjusting to environmental changes. It was measured by five items adopted from He and Li (2005).

Control variables

We measured *firm age* by subtracting the year of establishment or incorporation from the year of 2009. *Firm size* was measured by the natural logarithm of the firm's total number of employees in 2009. We controlled *public listing* using a dummy variable, with 1 for listed firms; otherwise, 0 for non-listed firms. Moreover, we included two separate dummies for foreign ownership, *WFOE* takes the value of 1 if

the firm is wholly foreign owned, whereas *joint-venture (JV)* takes the value of 1 if ownership is shared between one or more foreign and local partners.

Industry was controlled using the OECD industry scheme, including five categories: low-tech manufacturing, medium-low tech manufacturing, medium-high manufacturing, high-tech manufacturing, and services. We also controlled two variables for the market environment: market growth and competitive intensity. We measured *market growth* with a three-item scale adapted from Zhou and Wu (2010) that measures how fast the firm's business activity has been growing. *Competitive intensity* was measured by assessing the severity of competition in the local market using a scale from Atuahene-Gima and Ko (2001).

Interrater reliability

Among the 110 firms with complete information, we obtained a second survey for 58 firms. For these 58 firms with two survey responses, we averaged the scores. To check for the internal consistency of the respondents' evaluations, we used the Spearman-Brown test of interclass correlation (ICC) (Shrout and Fleiss, 1979; James, 1982) for these 58 firms. The ICC(2) was 0.72, 0.73 and 0.72 for technological capabilities, leader strategic competences, and strategic actions respectively, suggesting that the means for the assessments were stable. Thus, the interrater agreement for each aggregated measure is satisfactory.

Psychometric properties of measurement scales

We examined the correlations between all variables (see Table 2), and obtained variance inflation factors (VIF). Both checks confirm that multi-collinearity is not a substantive problem.

*** *Insert Table 2 about here* ***

We undertook several procedures recommended by Podsakoff, MacKenzie, Lee, and Podsakoff (2003) to reduce and evaluate the magnitude of common method bias, as well to assess construct validity. First, our focal explanatory variables – namely the measures of relative performance – have been derived from archival sources. Second, to verify that common method variance is not a substantive concern for the capability-based variables, we adopted the two-step approach suggested by Anderson

and Gerbing (1988) to estimate measurement models. First, we used CFA to assess the psychometric properties of the multiple-item scales used to measure these constructs. We estimated an overall, four-factor confirmatory measurement model, and found it to have a satisfactory fit to the data (overall model fit $\chi^2/df = 1.42$, comparative fit index [CFI] = 0.98, incremental fit index [IFI] = 0.98, root mean square error of approximation [RMSEA] = 0.06). In addition, we tested a one factor model that represented the alternate conceptualization of this construct (overall model fit $\chi^2/df = 6.06$, CFI = 0.67, IFI = 0.68, RMSEA = 0.22). Results indicate that the four-factor model provides a better fit. All factor loadings exceeded 0.55, with all t-values greater than 7.67, providing evidence of convergent validity among our measures.

Moreover, we assess the discriminant validity of the measures in two ways. First, we calculate the shared variance between all possible pairs of constructs and compare it with the average variance extracted (AVE) of each construct. The results show that for each construct, the AVE is much higher than the highest shared variance, indicating discriminant validity among our constructs. Second, we assess discriminant validity using two-factor CFA models involving each possible pair of constructs, with the correlation between the two constructs first fixed as 1 and then freely estimated. All the χ^2 values of the freely estimated model were significantly lower than the restricted model, in support of discriminant validity (Anderson and Gerbing, 1988). The composite reliabilities of all constructs range from 0.71 to 0.91 (see Table 1).

Results

We test our hypotheses using ordinary least squares (OLS) regression. Table 3 reports the results explaining respectively growth action speed (Models 1 to 3) and joint action speed (Models 4 to 6). In Hypothesis 1a, we proposed that relative market share performance has a negative impact on growth action speed. Model 2 and Model 3 show that market share change is negatively related to growth action speed at a statistically significant level ($b = -31.81, p < 0.10$; $b = -30.67, p < 0.10$), whether or not we control for capabilities. This provides marginal support for Hypothesis 1a.

*** *Insert Table 3 about here* ***

In Hypothesis 1b, we proposed that relative market share performance has a

negative impact on joint action speed. Model 5 shows that market share change is negatively related to joint action speed at a statistically significant level ($b = -53.79, p < 0.05$) when capabilities are not controlled. But when capabilities are controlled (Model 6), this significant result disappears. Thus, support for Hypothesis 1b is weak.

In Hypothesis 2, we proposed that relative financial performance has a negative impact on joint action speed. Model 5 and Model 6 show that return on total assets relates negatively to joint action speed at a statistically significant level ($b = -0.02, p < 0.05$; $b = -0.03, p < 0.01$), whether or not we control for capabilities. Thus, Hypothesis 2 is supported.

In Hypotheses 3a and 4a, we proposed that technological capabilities and leader strategic competences respectively have a positive impact on the speed of growth actions. Model 3 shows positive and significant results for technological capabilities ($b = 0.22, p < 0.05$) and leader strategic competences ($b = 0.35, p < 0.01$). Thus, Hypothesis 3a and Hypothesis 4a are supported (Model 3).

We furthermore proposed that technological capabilities (Hypothesis 3b) and leader strategic competences (Hypothesis 4b) have a positive impact on the speed of joint actions. However, only leader strategic competences have a positive and significant impact on the speed of joint actions ($b = 0.73, p < 0.001$). Thus, Hypothesis 4b is supported, but Hypothesis 3b is not supported (Model 6). Overall, these results show that growth action speed is driven by both technological capabilities and leader strategic competences, while joint action speed is specifically driven by leader strategic competences.

DISCUSSION

Theoretical contributions

In highly volatile markets, the speedy design and implementation of strategic actions is critical for gaining competitive advantage. Our analysis shows that the speed of action is driven not only by firms' resources but also by competitive pressures. On this basis, we offer several contributions to the literature.

First, combining RBV and BTF enhances our understanding of the drivers of firms' competitive behavior. This combined perspective emphasizes that external

drivers (*i.e.*, performance pressures) complement internal drivers (*i.e.*, strategic capabilities) of speed of strategic action. While, poor performance creates pressures to take strategic initiatives, firms they are constrained by their own capabilities when choosing appropriate actions. As an analogy, strategic capabilities are like the arms for a battle (*i.e.*, strategic actions) when the troop (*i.e.*, the firm) confronts the threat of invasion (*i.e.*, deteriorating performance); without the arms, the troop would be unable to fight an invader.

Second, our distinction between growth and joint actions leads the way toward differentiating strategic actions, and enables more fine-grained analysis of their drivers. Specifically, underperforming firms in terms of market share tend to engage in growth actions, while firms in financial distress are more inclined to pursue joint actions. Hence, underperforming firms are likely to prioritize strategic actions that address the specific aspect of performance in which they are lagging, and they would take such actions more speedily. The BTF provides a theoretical foundation for examining such asymmetric behavioral patterns not only between high- and low-performing firms, but between firms underperforming by different criteria.

Third, our study highlights which capabilities shape different types of strategic actions. Firms with strong technological capabilities are likely to take growth actions but not joint actions; in fact the coefficient is negative. This negative though insignificant effect differs from the RBV-based prediction that resources enable strategic actions. However, prior research also shows that firms with strong technological capabilities have less need for collaboration, but may be concerned about the risk of technology leakage (Gulati and Singh, 1998). This concern may be highly pertinent to the context of China where intellectual property rights protection is generally believed to be weak and may deter technology leaders from sharing technology through joint actions (Luo, 2007). Hence, capabilities that are hard to protect may discourage rather than encourage certain types of strategic action. In contrast, leader strategic competences encourage both growth and joint actions; in fact, the coefficients have the highest level of significance in all regressions. These results underline our argument that, in a volatile and competitive environment, leaders play a

pivotal role for firms to take actions proactively and to win the competition.

Finally, we contribute to the strategy in emerging economies literature (Wright et al., 2005) by emphasizing that behavioral perspectives substantially help to explain firm behavior in such contexts. Recent theoretical work on strategy in emerging economies focuses on external constraints in form of institutions and the use of networks (Peng, et al., 2008; Xu and Meyer, 2013). This literature has, however, rarely looked at competitive dynamics and the actions that firms take to achieve competitive advantage (Cui et al., 2014; Meyer and Sinani, 2009). We add to this literature by focusing on the behavioral aspects of managerial decision making, which are constrained by high degrees of bounded rationality and bounded reliability. Understanding how decision makers act under such circumstances is critical for advancing our knowledge on firm behaviors in emerging economies.

Theoretical extensions for future research

Our study lends itself to at least three directions for future theorizing, namely contextual boundary conditions, interaction effects, and differences across different types of players. First, we have argued that the BTF is particularly relevant to analyzing competition in emerging economies, due to the high environmental volatility and intensive competition. Moreover, we have suggested that leader strategic competences are relevant in contexts of high power distance combined with high uncertainty, economic growth and competition. These arguments invite further theorizing regarding the contextual boundary conditions, or contextual moderators. For example, future research may investigate contextual variables at the level of industries and geographies that may moderate the effects in our model.

Second, theoretical considerations suggest that resources and managerial motivations may need to be present simultaneously to trigger strategic actions. Hence, there may be interaction effects between, for example, resources and past performance, but it also opens the possibility that the simultaneous presence of both conditions is a *necessary* condition for actions to be undertaken. We conducted exploratory tests of moderating effects between these two sets of variables on action speed, but we did not find statistically significant effects. We believe this is likely due to our sample size

being too small to detect more complex empirical relationships. However, such moderating effects would be a fruitful avenue for future research.

Third, prior research indicates that competitive behavior in emerging economies would vary between foreign and local firms due to, for example, differences in decision making processes and market segments (Chang and Park, 2012; Gadiesh et al., 2007). In our data, the correlations between ownership types and most dependent and independent variables are insignificant. However, future research may explore more meticulously the differences in strategic behaviors in firms with different types of ownership that directly compete with each other.

Empirical limitations and future research

Opportunities for future research arise from the limitations of our empirical data as well. First, we captured competitive rivalry through a competitive repertoire approach, which aggregates a range of different strategic actions during a certain period of time (Ferrier, 2001; Miller and Chen, 1994). The advantage of this approach is that it reflects the strategic scheme of the company and its perceived pressures from its competitors, and is appropriate for industries that have more than two or three players. However, it downplays the dynamic interaction on the level of dyadic rivalry which would be critical in duopolies or narrow oligopolies, and makes it “difficult to ascertain the reactions from rivals that specific actions engender” (Chen and Miller, 2012: 34). Future studies may complement general competitive pressures with data from direct rivals to study dyadic interaction.

Second, we have been privileged to have access to senior executives in China, specifically the participants and alumni of the EMBA and Executive Education programs of CEIBS. The school’s enrollment reflects a broad section of senior leaders from a wide spectrum of businesses including private and state-owned firms and foreign-invested enterprises. However, this approach entails the possibility of selection biases and oversampling for example more successful firms (that would send their managers to a top business school). Moreover, we only included responding firms covered by the Oriana and Osiris databases, which implies that only business units that could be clearly matched to those databases were used.

Third, our measurements may be imperfect. Notably leader strategic competence is a self-assessed measure, which creates the possibility that the senior managers over-estimate their leadership team. We have mitigated this possibility by asking them to assess strategic competences of the top management *team*, not their personal capabilities. However, as managers associate with their team, and people generally tend to overestimate their own ability, this effect could create an upward bias in the competence measure. If this bias was non-random and in some way related to an unobserved variable (*i.e.*, self-confidence), then it might distort our results. While we acknowledge that our perceptual measure may be subject to such a bias, we contend that it mainly captures actual rather than imagined capabilities, and hence is closely related to the concept we are measuring, namely leader strategic competence. Future research may aim to separate actual capabilities from the psychological construct of self-confidence by measuring leader strategic competences through an assessment by an independent third party.

CONCLUSIONS

In a highly volatile and competitive market environment, speed of action is essential to gain competitive advantage. In this study of competitive dynamics, we have advanced three arguments regarding speed in the emerging economy competition. First, we propose to differentiate strategic actions into growth and joint actions to account for the distinct ways in which emerging economy firms engage in competition. Second, we propose to broaden the range of capabilities that enable firms to speedily take strategic actions, including in particular leader strategic competences. Third, we suggest (and show empirically) that different competitive challenges and resource endowments trigger different types of strategic actions. These extensions make the competitive dynamics framework more relevant to emerging economies, such as China.

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Table 1. Measures and questionnaire items

Variables and items	SFL
Technological capabilities: Please rate your company, <i>relative to</i> your major competitors in terms of its technological capabilities in the following areas. Circle a number for each capability (1 = much worse than competitors, 7 = much better than competitors). CR = 0.91	
1. Acquiring important technology information	0.82
2. Identifying new technology opportunities	0.78
3. Responding to technology changes	0.82
4. Mastering state-of-the-art technologies	0.86
5. Practising continuous innovation	0.77
Leader strategic competences: Please rate your company, <i>relative to</i> your major competitors in terms of how your senior management team does the following (1 = much worse than competitors, 7 = much better than competitors). CR = 0.89	
1. Accurately position the company in the market	0.82
2. Adjust the strategic goals and operations of the company in timely fashion	0.81
3. Re-organize resource immediately in order to adjust to changes in the environment	0.82
4. Formulate ambitious strategic goals and plans	0.62
5. Increase or decrease business activities rapidly in order to realize strategic goals	0.67
6. Come up with new and creative ideas and proposals in order to catch up opportunities	0.55
Growth action speed: For each of the strategic actions listed below, has your company initiated the action in the last 12 months, and how speedily has it been doing that, <i>relative to</i> the major competitor? (1 = far slower than competitor; 7 = far faster than competitor). CR = 0.76	
1. Action Speed - Introducing brand new product	0.72
2. Action Speed - Introducing new service	0.75
3. Action Speed - Entering new market or market expansion	0.60
Joint action speed: For each of the strategic actions listed below, has your company initiated the action in the last 12 months, and how speedily has it been doing that, <i>relative to</i> the major competitor? (1 = far slower than competitor; 7 = far faster than competitor). CR = 0.81	
1. Action Speed - Merger and acquisition	0.79

2. Action Speed - Alliance or cooperative agreement	0.79
Market growth: To what extent do you agree with the following statements regarding market growth of your main business activity in China? (1 = strongly disagree, 7 = strongly agree) CR = 0.75	
1. The growth rate of this industry in the past three years was high.	0.73
2. Market demand in this industry is growing rapidly.	0.88
3. The many potential customers in this industry provide major opportunities for my company.	0.83
Competitive intensity: How would you assess the intensity of competition in your (Chinese) local market regarding the following aspects? (1 = strongly disagree, 7 = strongly agree) CR = 0.71	
1. Extremely aggressive competition	0.84
2. Intense price competition	0.67
3. Strong competitor sales, promotion and distribution systems	0.70
4. Very similar competitor product offerings	0.69

CR = construct reliability; SFL = standardized factor loading.

Table 2. Descriptive statistics and correlations of the variables

Variables	Mean	s.d.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
1 Firm age	20.1	14.89																			
2 Firm size	3.4	0.74	.19*																		
3 Public listing	0.4	0.50	.03	.29**																	
4 Foreign firm: JV	0.0	0.19	-.08	-.12	.03																
5 Foreign firm: WFOE	0.2	0.38	-.07	-.17	-.35***	-.09															
6 Industry: low-tech manuf.	0.2	0.38	-.02	-.06	-.10	-.09	.11														
7 Industry: medium-low tech manuf.	0.1	0.30	.26	-.08	-.17	-.07	.09	-.15													
8 Industry: medium-high tech manuf.	0.4	0.50	-.04	.01	.13	.12	-.01	-.40***	-.29**												
9 Industry: high-tech manuf.	0.2	0.39	-.19	-.07	-.05	.03	-.16	-.22**	-.16	-.43***											
10 Industry: services	0.1	0.30	.07	.24*	.14	-.07	.01	-.15	-.11	-.29**	-.16										
11 Market growth	5.1	1.25	.02	.06	.05	-.23*	.10	.10	-.18	-.03	-.02	.13									
12 Competitive intensity	5.6	0.92	.14	-.08	.06	.12	-.02	-.01	-.06	.03	-.06	.10	.10								
13 Relative market share performance	0.0	0.01	.18	.16	.03	-.00	-.00	-.07	.10	-.06	.08	-.02	.06	.17							
14 Relative financial performance	4.8	15.34	.01	-.09	.13	.11	.13	.17	.15	-.14	-.16	.07	.01	-.02	.13						
15 Technological capabilities	5.1	1.06	-.12	.11	-.20*	.09	.16	.17	-.17	.08	-.11	-.04	.29**	.08	.09	-.10					
16 Leader strategic competences	5.2	0.88	.03	.14	-.06	-.04	.05	.10	-.14	-.02	.06	-.03	.36***	.17	-.02	-.09	.54***				
17 Growth action speed	4.8	1.00	.03	.17	-.00	-.06	-.04	.21*	-.12	.03	-.12	-.04	.34***	.02	-.15	-.13	.44***	.55***			
18 Joint action speed	4.0	1.42	.10	.32**	-.00	-.04	.15	-.06	.01	-.03	-.06	.17	.10	.19	-.12	-.28**	.24**	.48***			

N = 88 for correlations with joint action speed as 22 firms did not adopt joint actions; N = 110 for all other correlations. * p < 0.05; ** p < 0.01; *** p < 0.001.

Table 3. Regression model for the speed of strategic action

	Growth action speed			Joint action speed		
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
<i>Control variables</i>						
Firm age	-0.005 (0.007)	-0.003 (0.007)	-0.001 (0.006)	0.000 (0.011)	0.001 (0.010)	0.002 (0.010)
Firm size	0.346* (0.140)	0.376** (0.141)	0.214 (0.131)	0.665** (0.217)	0.687** (0.212)	0.462* (0.206)
Public listing	-0.201 (0.210)	-0.145 (0.214)	0.050 (0.198)	-0.162 (0.328)	0.046 (0.318)	0.073 (0.297)
Foreign firm: JV	0.355 (0.520)	0.461 (0.518)	0.151 (0.477)	0.039 (0.857)	0.271 (0.806)	0.447 (0.755)
Foreign firm: WFOE	-0.207 (0.269)	-0.138 (0.268)	-0.208 (0.242)	0.779 [†] (0.438)	0.965* (0.413)	0.904* (0.381)
Industry: low-tech manuf.	0.738* (0.313)	0.730* (0.320)	0.595* (0.297)	-0.493 (0.519)	-0.377 (0.509)	-0.104 (0.485)
Industry: medium- low-tech manuf.	0.237 (0.389)	0.327 (0.392)	0.442 (0.355)	0.095 (0.734)	0.470 (0.695)	0.588 (0.639)
Industry: medium- high-tech manuf.	0.293 (0.259)	0.236 (0.258)	0.211 (0.239)	-0.108 (0.391)	-0.194 (0.370)	-0.066 (0.352)
Industry: services	-0.121 (0.380)	-0.176 (0.383)	-0.016 (0.351)	0.114 (0.551)	0.140 (0.533)	0.615 (0.507)
Market growth	0.265*** (0.079)	0.276*** (0.078)	0.134 [†] (0.075)	0.040 (0.122)	0.046 (0.114)	-0.112 (0.113)
Competitive intensity	0.050 (0.105)	0.079 (0.105)	0.002 (0.096)	0.385* (0.170)	0.441** (0.163)	0.229 [†] (0.159)
<i>Main effects</i>						
Relative market share performance (H1a/b)		-31.808 [†] (17.175)	-30.674 [†] (15.804)		-53.794* (23.538)	-37.171 (22.510)
Relative financial performance (H2)		-0.007 (0.007)	-0.005 (0.006)		-0.024* (0.010)	-0.025** (0.009)
Technological capabilities (H3a/b)			0.217* (0.104)			-0.043 (0.156)
Leader strategic competences (H4a/b)			0.352** (0.119)			0.727*** (0.198)
Observations	110	110	110	88	88	88
Model <i>F</i>	2.380*	2.485**	4.314***	1.788 [†]	2.758**	3.913***
Adjusted <i>R</i> ²	0.122	0.150	0.313	0.091	0.208	0.334

The entries in the table are unstandardized coefficients. Standard errors in parentheses.

[†]p < 0.10; * p < 0.05; ** p < 0.01; *** p < 0.001.