

Entrepreneurial firms in the context of China's transition economy: an integrative framework and empirical examination

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Abstract

Investigating corporate entrepreneurship in an emerging economy of China, this research proposes and substantiates an integrative framework that characterizes determinants for corporate entrepreneurship (institutional, organization-specific, and strategic market factors) and consequences of entrepreneurship (sales growth and market share performance). Our empirical results indicate that internationalization, firm size and age, and market orientation all impact on the practice of corporate entrepreneurship, which in turn contributes to superior performance. Empirically, this paper provides initial evidence demonstrating the multifaceted determinants of corporate entrepreneurship in a transition economy. Our findings suggest that the Chinese firms appear to be integrating institutional changes and market-oriented activities to facilitate organizational growth.

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1. Introduction

In the context of Western economies, extensive research has been done to investigate the practice of corporate entrepreneurship (e.g., Daily et al., 2002; Gartner and Birley, 2002; Ireland et al., 2001; McDougall and Oviatt, 2000; Peng, 2001; Zahra et al., 1999). There is much empirical evidence that corporate entrepreneurship leads to superior performance in the Western and developed economies (Miller, 1987; Miller and Friesen, 1983; Morris and Paul, 1987; Zahra, 1991; Zahra and Covin, 1995).

However, much less is known about the increasing importance of entrepreneurial firms in emerging economies. In contrast to the more developed economies, emerging economies are characterized by social and economic transformations in an institutional and market environment that is substantially different from that in a Western economy (Batra, 1997; Deng and Dart, 1999; Deshpandé and Farley,

2000). For instance, since its open-door policies in 1979, China has experienced a smooth and rapid transition from a government-controlled economy to a market-driven one. With an average of 9% of real GDP growth for the past 20 years, China is the largest transitional and fastest-growing economy. In the year 2001 alone, it attracted more than 26,140 foreign investment (FI) projects with \$69.2 billion contract value of world widely as the second largest FI recipient country (www.uschina.org).

Several recent studies on entrepreneurial firms in transition economies focus only on the descriptive and exploratory presentations of the new forms of entrepreneurial firms (Daily et al., 2002; Gartner and Birley, 2002; Zahra et al., 2000). More important, it seems that existing corporate entrepreneurship literature lacks an integrated framework that conceptualizes multifaceted antecedents pertaining to corporate entrepreneurship in emerging economies and the significance of corporate entrepreneurship in relation to firm performance. Therefore, the primary purpose of this study is to fill this gap in the context of Chinese entrepreneurial firms.

Specifically, the goals and potential contributions of our research are threefold. First, this paper proposes and empirically tests an integrative framework of corporate entrepre-

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neurship for firms in China, integrating an institutional model in economics (Aldrich, 1979), a resource-based view in strategic management (Barney, 1991), organization theory in sociology (Aiken and Hage, 1971), and a market orientation perspective in marketing (Kohli and Jaworski, 1990). This integrated and multidiscipline-based framework is much needed for theory building and empirical testing in corporate entrepreneurship research. Second, it proposes multifaceted determinants of corporate entrepreneurship, including institutional, organizational, and strategic market factors. By incorporating these broad forces, we aim to enhance the knowledge of the dynamic and complex nature of corporate entrepreneurship in different social and economic environments. Third, we empirically test and substantiate, based on a field survey of Chinese firms, that internationalization, firm size and age, and market orientation all impact on the practice of corporate entrepreneurship, which in turn contributes to business performance in terms of market share and sales growth. As such, this study provides initial evidence of the determinants and performance implications of corporate entrepreneurship in a transition economy of China.

2. Literature review and framework development

According to the strategic management literature (Miller and Friesen, 1983; Morris and Paul, 1987; Zahra et al., 1999; Dess et al., 1997), the conceptual domain of corporate entrepreneurship consists of three components: proactiveness, risk taking, and innovativeness. Echoing this view, Miller (1983, p.772) offers the classical definition of an entrepreneurial firm: “the firm that engages in product-market *innovation*, undertakes somewhat risky ventures, and is first to come up with *proactive innovations*, beating competitors to the punch. A non-entrepreneurial firm is one that innovates very little, is highly *risk averse*, and imitates the moves of competitors instead of leading the way [italics added].” In essence, the conceptualization of corporate entrepreneurship as three components of proactiveness, risk taking, and innovativeness seems also championed by studies of corporate entrepreneurship in the strategic marketing literature (Davis et al., 1991; Knight, 2000).

In the literature, most studies on corporate entrepreneurship are executed in Western market economies (e.g., Dess et al., 1997; Zahra, 1991; Zahra and Covin, 1995; Zahra et al., 1999), while much less has been done in transitional economies. It has established that corporate entrepreneurship is predominantly shaped by the external environment and that firms are motivated to grow and evolve into entrepreneurial corporations (Zahra, 1991). Corporate entrepreneurship is desired in that it ultimately leads to superior organizational performance (Miller, 1987; Zahra, 1991; Zahra and Covin, 1995). As such, there is no wonder that corporate entrepreneurship is believed to be able to provide a foundation for long-term competitive success for firms of

all types competing in the global economy across several different market economies (Ireland et al., 2001; Peng, 2001). Reflecting the recent increase of entrepreneurial firms in transition economies, the research on corporate entrepreneurship seems to shift its focus from more developed economies to less developed world, particularly the emerging or transition economies (Zahra et al., 2000; McDougall and Oviatt, 2000). As noted before, the literature unfortunately lacks systematic and rigorous investigations of the antecedents and consequences of entrepreneurial firms in a transition economy like China.

2.1. Antecedents of corporate entrepreneurship

Zahra (1991) holds that antecedents of corporate entrepreneurship should be a combination of environmental, strategic, and company-related variables that jointly influences corporate entrepreneurship efforts. In particular, he notes that “whereas each variable may independently influence corporate entrepreneurship, only by examining their simultaneous effects can corporate entrepreneurship’s major precursors be reliably understood” (Zahra, 1991, p. 260). Concurring with this view, we provide a theoretical model integrating institutional, strategic, and organizational-specific factors as determinants for corporate entrepreneurship and determining corporate entrepreneurship’s effects on firm performance. Operating in China’s business environment, firms have to cope with two prominent institution-related factors: ownership and internationalization of firms (e.g., Peng, 2001). Therefore, ownership and internationalization are included as institutional antecedents of corporate entrepreneurship. As firm size and age are among the most relevant company-related factors (e.g., Zahra, 1991), these two factors are studied as organizational determinants of corporate entrepreneurship. In addition, in marketing and strategic marketing literature, customer orientation has been noted as an important strategy for firms to survive and prosper in hostile, turbulent, and competitive environments (Davis et al., 1991; Kohli and Jaworski, 1990; Slater and Narver, 1994). As such, customer orientation is studied as a strategic determinant of corporate entrepreneurship in the theoretic model.

2.1.1. Ownership

Institutional theory (Aldrich, 1979; North, 1990) depicts that institutions determine constraints and rules as well as govern economic and market activities. From a macroeconomic perspective, institutions provide organizations with a social system of business laws, rules, and policies at the industry and national level. As such, organizational behavior such as corporate entrepreneurship may be greatly influenced by the stipulated constraints and rules (Oliver, 1991). Ownership structure and internationalization represent such prominent institutional factors in China (Deng and Dart, 1999; Peng and Luo, 2000). Firms with different ownership structures operate in different institutional envi-

ronments within China. Bruton et al. (2000) described several distinct classes of Chinese businesses: state-owned enterprises (SOEs), joint ventures with international firms, and others. High-level control by central government, strong bargaining power with government officials, easy access to political privileges, and soft budgets represent some of the key characteristics of the institutional environment that differentiates SOEs from non-SOEs (e.g., international joint ventures). In addition, SOEs rarely utilize incentive structures that align with financial performance (Peng and Luo, 2000). All of these institutional arrangements may discourage SOEs from pursuing high-level entrepreneurial actions. In contrast, international joint ventures may choose to develop a competitive advantage by concentrating on market-driven entrepreneurial activities so as to compensate for their lack of political capital or legitimacy (Deng and Dart, 1999; Miller and Friesen, 1983; Morris and Paul, 1987). Therefore, we expect that

Hypothesis 1. International joint ventures tend to have a higher level of corporate entrepreneurship (i.e., being proactive, risk taking, and innovative) than SOEs.

2.1.2. Internationalization

As part of China's economic decentralization, some Chinese firms have been granted permits to directly access international markets, bypassing state-owned trading houses. The government expected that this new policy would boost exports and contribute to the competitive growth of domestic firms in international business. It turns out that firms with the permit have become more internationally oriented. Some firms are reactively internationalized due to the intensified domestic competition. Others are proactively internationalized, believing that internationalization or globalization is a symbol of competitive edge and success. In our research context, internationalization describes a firm's attempts to expand their sales into foreign markets (Ireland et al., 2001). International expansion requires firms to become more competitive and to focus on product-market innovations, growth opportunities, and latest technology (Cavusgil and Zou, 1994; Knight, 2000). According to Ireland et al. (2001), internationalization extends the firm's new market reach and potential, thus influencing corporate entrepreneurship in the firm.

Internationalization is a potential determinant for corporate entrepreneurship in China in that conceptually, McDougall and Oviatt (2000) note that selling in the international and global marketplace forces firms to be more entrepreneurial due to the global competition and culture distance. However, one may also argue that corporate entrepreneurship leads to a higher level of internationalization. This is because risk taking and innovativeness drive the firm to aggressively seek new markets, including international markets. Empirically, using panel data from the Finnish electronics industry, Autio et al. (2000) found evidence that early pursuit of interna-

tional opportunities leads to greater entrepreneurial behavior. As such, we hold that internationalization is positively related to corporate entrepreneurship in China. Therefore, we propose that

Hypothesis 2. Internationalization of the firm is positively associated with corporate entrepreneurship (i.e., being proactive, risk taking, and innovative).

2.1.3. Firm size

Among the organizational characteristics, firm size has been linked to strategic choices for the firm's competitive growth. Small firms are more likely to consider growth strategies to avoid sales decline and loss of business. They face many more challenging obstacles to survival and growth, owing primarily to their constrained organizational resources and capacity than larger firms. The resource-based theory advocates that firms have idiosyncratic, heterogeneous resources in a disequilibrium economy and that by deploying firm resources, firms obtain sustained competitive advantage and achieve better efficiency and/or effectiveness than competitors (Barney, 1991). According to the theory, the resources that are able to generate sustained competitive advantage are valuable, rare, and difficult to imitate. To small firms, resources and capacity constraints are likely to prevent them from pursuing cost leadership or differentiation strategies (Wiklund, 1999; Pfeffer and Salancik, 1978). Instead, they tend to adopt a more innovative, entrepreneurial approach than large firms (Miller, 1983). In addition, Wiklund (1999) presents empirical evidence to suggest that small firms are associated with entrepreneurial activities.

In a transition economy, this is even truer as small firms are generally lacking in social networking or legitimacy. From the perspective of institutional theories, small firms have to be more innovative and adaptable to environmental uncertainty and cope with institutional disadvantages (Oliver, 1991). Luo (1999) provided some evidence in the context of Chinese businesses that China's institutional constraints demand small firms become proactive and entrepreneurial in order to align themselves with environmental characteristics such as dynamism and complexity. In contrast, most large firms in China have stronger bargaining power and may receive preferential government protection, which tends to leave them less motivated to be risk taking and proactive (Park and Luo, 2001). This is different from Western economies, in which big firms may also be proactive, risk taking, and innovative with a transparent social and economic system (e.g., Microsoft and others). Since the present research context is in the transitional economy of China, we hypothesize a negative association between firm size and corporate entrepreneurship.

Hypothesis 3. Firm size is negatively associated with corporate entrepreneurship (i.e., being proactive, risk taking, and innovative).

2.1.4. Firm age

Organization research suggests that the older the organization, the more bureaucratic and the less receptive it is to entrepreneurial orientation (Aiken and Hage, 1971; Starbuck, 1983). Young organizations without established routines and managerial ties may need to be more proactive and take more risks to compensate their weakness of social capital (Park and Luo, 2001). In addition, young organizations are more likely to break the norms and become innovative than older organizations with high bureaucracy and inertia. From an organizational learning perspective, Mohan-Neill (1995) notes that new ventures often lack extensive databases and experience in the marketing sphere, and thus tend to demonstrate different market behaviors as compared to older firms. Specifically, the author presents empirical evidence suggesting that new ventures are more involved in the proactive environmental scanning activities and more likely to develop creative and innovative products than older firms. In China's transition context, younger organizations also face the risk of lacking legitimacy and competitive resources or facing tight budget constraints. As a result, they are more inclined to operate based on market-oriented behaviors and become more entrepreneurial in searching for market needs than older organizations (Park and Luo, 2001). This leads to

Hypothesis 4. Firm age is negatively associated with corporate entrepreneurship (i.e., being proactive, risk taking, and innovative).

2.1.5. Customer orientation strategy

As a strategic factor, customer orientation has been extensively studied and possibly represents the most influential development in the strategic marketing literature (Kohli and Jaworski, 1990; Slater and Narver, 1994). However, there is a paucity of inquiries into the link between customer orientation and corporate entrepreneurship in transitional economies. Customer orientation, sometimes also termed as market orientation (e.g., Deshpandé et al., 1993), is the central element of the marketing philosophy in Western literature (Levitt, 1960). In the literature, customer orientation is treated more as a strategic thinking than as a culture perspective of how to achieve competitive advantages (e.g., Day, 1994; Kohli and Jaworski, 1990). Customer orientation can nurture and enhance the organizational culture that provides strong norms for organizations to learn from customers and competitors, search for market opportunities, and respond to emerging trends and technologies (Day, 1994; Deshpandé et al., 1993; Slater and Narver, 1994). Hurley and Hult (1998) have recently shown a relationship between market-oriented activities and levels of organizational innovativeness. According to them, market orientation provides “a source of new ideas and motivation to respond to the environment.” (pp. 52). Webster (1994) holds that customer orientation, with a strategic focus on customers and competitors, is likely to create an over-

whelming predisposition toward entrepreneurial and innovative responses to a changing market. In addition, Venkatraman and Prescott (1990) emphasize that customer-oriented firms proactively pursue market expansion as they strive to identify and capitalize on emerging opportunities. Therefore, customer orientation should shape a firm's entrepreneurial behavior. Using data of firms in the US, Morris and Paul (1987) found that companies that scored higher on market orientation also tended to be more entrepreneurial oriented. A similar result was also observed by Miles and Arnold (1991) in the context of Western economies. As such, we expect that customer orientation should also be positively associated with corporate entrepreneurship in China.

Hypothesis 5. Customer orientation is positively related to corporate entrepreneurship (i.e., being proactive, risk taking, and innovative).

2.2. Consequences of corporate entrepreneurship

A large body of research has documented the theoretical relationship between corporate entrepreneurship and firm performance in the Western economies (Lumpkin and Dess, 1996; Miller, 1987; Wiklund, 1999; Zahra, 1991; Zahra and Covin, 1995). There is compelling empirical evidence that corporate entrepreneurship improves performance (Lumpkin and Dess, 1996; Miller, 1987; Zahra, 1991). After all, corporate entrepreneurship may result in more monitoring of, and quicker response to, market changes, thus allowing firms to capitalize on emerging opportunities. Entrepreneurial firms may also benefit from the innovative and proactive efforts toward pioneering the development of new products, processes, and services. These efforts would allow the firm to gain a competitive advantage that leads to improved results for the businesses. In addition, for a time-series perspective, the significant and positive association between corporate entrepreneurship and performance can even be sustainable and long lasting, according to the study by Wiklund (1999). Therefore, we hypothesize that

Hypothesis 6. Corporate entrepreneurship (i.e., being proactive, risk taking, and innovative) is positively related to business performance.

3. Methodology

3.1. Sample and data

Data used in this study were collected through person-to-person interviews with managers in China. Firms were randomly selected from the *China Basic Statistical Units Yearbook* (1997, 1998, 1999) listing registered business enterprises in China published by the China Statistical Press in Beijing. The directory provides basic information

of individual business enterprises, such as the address and contact number, business nature and scope, major products/services, turnover, number of employees, and ownership of firms. Firms identified were then called. Appointments were made with each firm. Research assistants checked the basic information obtained from the directories, such as the size and ownership of the sample firms, with the managers and requested their completion of the questionnaire.

In developing the questionnaire, we tried to utilize existing measures in the Western literature to operationalize the constructs where possible. The initial questionnaire instrument was drafted in English and then translated into Chinese with back translation. It is essential to ensure the appropriateness and original meanings of all measures for Chinese subjects when translating the survey instrument. As such, the systematic approach suggested by Brislin (1970) and Dubinsky et al. (1992) was followed when translating the English-drafted survey into Chinese and translating it back to English. It is believed that great care has been taken to assure that all items in the final questionnaire are meaningful, adequate, and appropriate in the Chinese context. In total, 289 Chinese managers were approached. From among them, 218 agreed to participate, leading to a response rate of 75%. Among the respondents, 28.6% are marketing managers and 34.4% are senior management members. About 52.8% of their firms reported they had fewer than 500 employees. A majority of firms (69.2%) had been in operation for less than 20 years.

3.2. Measures

Respondents were requested to report their perception of corporate entrepreneurship on a seven-point Likert scale (1 = *strongly disagree*; 7 = *strongly agree*). This Likert-type instrument consists of six items, based upon the scales in the literature (Covin and Slevin, 1989; Dess et al., 1997; Miller and Friesen, 1983; Morris and Paul, 1987; Smart and Conant, 1994; Zahra, 1991). This measurement tries to reflect corporate entrepreneurship in three domains: risk taking, innovation, and proactiveness. As a result, the items measuring corporate entrepreneurship include, compared to the major competitors, the firm that has higher propensity to take risks, higher level of innovation, higher tendency to engage in strategic planning activities, higher ability to identify customer needs and wants, higher ability to make the vision of the business a reality, and higher ability to identify new market opportunities.

The measure of customer orientation was taken from previous studies (Deshpandé and Farley, 1998, 1999, 2000; Deshpandé et al., 1993; Kohli and Jaworski, 1990; Slater and Narver, 1994). This measure is a seven-point Likert-type scale anchoring 1 (*strongly disagree*) and 7 (*strongly agree*). Specifically, managers from China indicated their agreement on 10 items, ranging from “Our firm is more customer-focused than our competitors,” “Our business measures customer satisfaction systematically and fre-

quently,” “Our strategy for competitive advantage is based on our understanding of customers’ needs,” “Our business exists primarily to serve customers,” to “Data on customer satisfaction are regularly disseminated at all levels in this business.”

Firm ownership is a dummy variable (1 = Chinese SOEs and 2 = International joint ventures). In addition, internationalization of the firm is measured by one item—“international sales as percent of total sales” (Yli-Renko et al., 2001). For the variable of firm size, we measured it by the number of constantly used employees in the firm. Age of the firm is the number of years the business has been in operation.

The measurement of organizational performance includes two dimensions: sales growth and market share. These two aspects of performance are measured because, as noted by previous research, they are deemed as more appropriate measures of performance in the context of Chinese firms in an emerging economy (e.g., Park and Luo, 2001; Peng and Luo, 2000; Luo, 1999). The former is assessed by the reported percentage of the growth rate of the total sales over last year, while the latter is measured by asking the estimated firm’s share of industry sales in percentage form.

4. Analysis and results

4.1. Measurement model

The measurement properties of the multi-item scales of corporate entrepreneurship and customer orientation were initially tested using the latent variable structural equation modeling method. As shown in Table 1, all 6 items used as

Table 1
Results of measurement model

Measurement model paths ^a	Standardized weights	T values	Composite reliability (variance extracted)
CUSOR1 ← CUSOR	0.517 ^b	–	0.912
CUSOR2 ← CUSOR	0.718	7.333	(0.745)
CUSOR3 ← CUSOR	0.657	6.991	
CUSOR4 ← CUSOR	0.724	7.367	
CUSOR5 ← CUSOR	0.832	7.872	
CUSOR6 ← CUSOR	0.847	7.935	
CUSOR7 ← CUSOR	0.681	7.123	
CUSOR8 ← CUSOR	0.466	5.599	
CUSOR9 ← CUSOR	0.576	6.459	
CUSOR10 ← CUSOR	0.601	6.633	
ENTRE1 ← ENTRE	0.570 ^b	–	0.896
ENTRE2 ← ENTRE	0.798	8.532	(0.859)
ENTRE3 ← ENTRE	0.812	8.612	
ENTRE4 ← ENTRE	0.804	8.567	
ENTRE5 ← ENTRE	0.680	7.733	
ENTRE6 ← ENTRE	0.794	8.508	
Goodness-of-fit statistics: $\chi^2(103) = 216.61, P = .00; CFI = .935;$ GFI = .918; AGFI = .898; RMSEA = .061			

^a CUSOR = customer orientation, ENTRE = firm entrepreneurship.

^b Fixed parameter.

Table 2
Correlations results of the variables ($n=218$)

Variables	X1	X2	X3	X4	X5	X6	X7	X8
Ownership X1	1.00							
Internationalization X2	.16 *	1.00						
Size X3	-.08	-.03	1.00					
Age X4	-.12	.07	.11	1.00				
Customer orientation X5	.15 *	-.03	-.07	.07	1.00			
Firm entrepreneurship X6	.11	.23**	-.19 *	-.17**	.68**	1.00		
Sales growth performance X7	.20 *	-.09	.08	.03	.01	.23**	1.00	
Market share performance X8	-.10	-.08	-.01	.09	.03	.19**	.04	1.00

* $P < .05$.

** $P < .01$.

indicators of corporate entrepreneurship and all 10 items as indicators of customer orientation had significant path loadings from the corresponding construct to indicators (i.e., t values > 2), providing convergent validity. We employed two approaches to test the discriminant validity. First, the latent–construct correlations result was significantly different from one, evidencing discriminant validity. Second, we found that average variance extracted (in Table 1) from the two measures of corporate entrepreneurship and customer orientation in confirmatory factor analysis was greater than the squared structural link between the two measures. As such, our results support the discriminant validity of the measurements. The comparative fit index (CFI=.94), goodness-of-fit index (GFI=.92), adjusted goodness-of-fit index (AGFI=.90), and root mean square error of approximation (RMSEA=.06) all suggest a rather good level of model fit. In addition, these two scales achieve enough reliability in that the composite reliability scores are .91 and .90 for corporate entrepreneurship and customer orientation, respectively.

4.2. Hypotheses testing results

Table 2 reports the Pearson correlation results and the summary statistics of the variables in this study. There was a strong association between corporate entrepreneurship and customer orientation ($\rho = .68$, $P < .01$).

To test our hypotheses, we ran a series of multivariable regressions. Structural equation modeling is not utilized in

testing hypotheses mainly because some of the studied variables (e.g., firm ownership, size, and age) are not measured with multi-item scales. A structural equation modeling with many single-item constructs might not be able to achieve better statistic efficiency or to deal with measurement error more scientifically. The results are presented in Table 3. H1 predicts that international joint ventures are more entrepreneurial than SOEs. This hypothesis is not supported since the coefficient of ownership is not significant. As such, the SOEs are not reported to be less entrepreneurial than international joint ventures.

H2 was supported since the estimated standardized coefficient of internalization was .34 ($P < .01$). As such, our results seem to indicate that as firms are more internationalized, they tend to have a higher level of corporate entrepreneurship. In addition, since firm size was negatively, significantly related to corporate entrepreneurship ($\beta = -.39$, $P < .01$) as predicted, H3 was supported as well. This finding adds more empirical evidence that China's smaller firms become more proactive and innovative than larger firms that have stronger bargaining power and preferential government protection. H4 postulates that firm age is negatively related to corporate entrepreneurship. As shown in Table 3, the standardized coefficient of firm age was $-.25$ ($P < .01$), supporting H4. This result seems to suggest that in China's transition economy, younger organizations are more inclined to operate based on market-oriented behaviors and become more entrepreneurial in searching for market needs than older organizations.

Table 3
Hypotheses testing results

Independent variables	DV = Entrepreneurship		DV = Sales growth		DV = Market share	
	Prediction	Standard coefficient	Prediction	Standard coefficient	Prediction	Standard coefficient
Ownership	H1 +	.07		.28*		-.06
Internationalization	H2 +	.34**		.08		-.13
Size	H3 -	-.39**		-.02		.04
Age	H4 -	-.25*		-.11		.17
Customer orientation	H5 +	.65**		.02		.08
Entrepreneurship		-	H6 +	.49**	H6 +	.45**
R^2 , $N=218$.65		.18		.15

* $P < .05$, one-tail tests.

** $P < .01$, one-tail tests.

In addition, as predicted by H5, when organizational strategy places more emphasis on customer orientation, firms become more entrepreneurial ($\beta=.65$, $P<.01$). This finding suggests that when the firm places strategic emphasis on its customers, it is likely to create a predisposition toward entrepreneurial and innovative responses to a changing market. As such, customer orientation drives the firm to become more entrepreneurial, proactively pursuing market expansion. The final hypothesis (H6) is tested using two regression functions: one with sales growth as the dependent variable and the other with market share. Again, results in Table 3 supported H6. The coefficient of corporate entrepreneurship was positive and significant in both regression estimations at the .01 level. As such, our results indicate that corporate entrepreneurship is positively related to both sales growth and market share in the studied Chinese firms.

5. Conclusion and discussion

Investigating entrepreneurial firms in transition economies has recently received attention worldwide and has become an important literature stream for scholarly research (Zahra et al., 2000). However, most previous studies lack an integrated framework that conceptualizes multifaceted antecedents of corporate entrepreneurship and the significance of corporate entrepreneurship to business performance.

This study contributes to our understanding of the institutional, organizational, and strategic market-oriented determinants for corporate entrepreneurship and performance implications in a transition economy. Focusing on the situation in China, we develop an integrative framework that characterizes two institutional factors (ownership and internationalization), two organizational factors (firm size and age), and one strategic factor (customer orientation) as the antecedents of corporate entrepreneurship. Our findings show that most of these factors are significant determinants of the development of corporate entrepreneurship in China. The only unsupported expectation is that the SOEs are not less entrepreneurial in orientation than joint ventures. It seems that the implementation of reforms to enforce market-sensitive behavior in the SOEs over the past two decades has had positive results. With increased decision-making autonomy and financial incentives for firm management in this sector, the SOEs have both resources and legitimate advantages to respond to market forces and opportunities as entrepreneurs. As such, the unsupported relationship between ownership and corporate entrepreneurship is not totally surprising. Our findings also confirm the link between corporate entrepreneurship and firm performance, as established in Western economies. This empirical evidence supports Peng's (2001) prediction that corporate entrepreneurship creates wealth in transition economies by contributing to the growth of entrepreneurial firms. Supplementing the research on social networking as the growth strategy among entrepreneurial firms (Peng and Luo, 2000;

Peng, 2001), we emphasized an alternative growth approach of corporate entrepreneurship (i.e., being proactive, risk taking, and innovative).

This research has some managerial implications for firms to successfully compete in the emerging economy of China. First, managers should understand that as transitional economies are integrating more and more into the global markets, managers should reshape the business practices by promoting corporate entrepreneurship. Our research findings suggest that entrepreneurial firms appear to grow faster and enjoy greater market share, the desired outcome of the firm. Second, managers and policy makers may enhance corporate entrepreneurship by different approaches. For example, our results indicate that institutional change such as greater internationalization is associated with a higher level of entrepreneurial orientation. As such, in today's highly globalized environments, firms may choose to partner with international investors to enhance corporate entrepreneurship. In addition, as our results lend some support to the positive association between customer orientation and corporate entrepreneurship, it seems that a customer-oriented strategy may encourage the firm to be more proactive in strategizing and planning, more risk taking in implementing plans, and more innovative in delivering products and services for a profit.

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