

The persistence of economic profit

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Abstract Recently, as practitioners and researchers from developed countries have increasingly probed the activities of emerging economies, what exactly drives the long-term economic profitability of firms in China has become the most salient issue in the above fields. However, a study dedicated to the persistence analysis of profitability differentials among firms in China has not yet been proposed. This study thus employs China's business database to examine the persistence in the incremental components of the industry and firm effects on economic profitability and tests the hypotheses that conform to the conventional wisdom of relative rates of persistence. A persistence partitioning model is fitted to a new data set, and the results show that the incremental effects of industry on economic profitability persist longer than the incremental effects of the firm. In other words, the long-term competitive advantages of firms in China are more predictable and sustainable based on industry influences compared to firm factors. These findings support the predictions of industrial organization economics, and provide some implications for corporate strategy.

Keywords Persistence · Economic profit · Corporate strategy · Industrial organization economics · Resource-based view of the firm · China

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Introduction

China is one of the leading rapidly-growing emerging economies whose policies favor economic liberalization and a free-market system (Hoskisson et al. 2000). Since the first major overview of firm strategy in emerging economies conducted by Hoskisson et al. (2000), a vast amount of research on international business and strategy has focused on the strategies and performance of firms—both domestic and foreign—in China (Wright et al. 2005; Peng et al. 2008). As we study competition around the world, it is not surprising that the firms in the developed countries, mostly in the United States, have become the main focus for examining the effects of differences in firm behavior on competition because of the relatively stable, market-based institutional framework in these economies. However, even among developed countries, the world is different because there are significant differences in terms of how competition is organized (Whitley 1994; Lewin and Kim 2004; Redding 2005; Ring et al. 2005). Recently, as practitioners and researchers from developed countries have increasingly probed the economies of emerging countries, it has frequently been asked what drives the competition strategy of international firms—both the multinational corporations (MNCs) and the small and medium enterprises (SMEs)—in China. Alternatively, it has been asked what determines the success and failure of international firms in China. These questions have become the most recent salient issues in the fields of international business and strategy (Hoskisson et al. 2000; Peng 2004; Wright et al. 2005; Peng et al. 2008). Although Park et al. (2006) in line with the conventional economic and strategy literature have investigated the determinants of firm profitability among firms in China to examine the relative importance of industry and firm factors by using the variance decomposition approach, a study dedicated to persistence analysis in profitability differentials among firms in China has not yet been proposed.

Understanding the determinants of profitability differentials among firms is a key theoretical and empirical issue in the fields of industrial organization economics (IO) and resource-based views of the firm (RBV). IO models theoretically assume that industry structure shapes a firm's conduct, which in turn determines firm performance. In the late 1930s, Ed Mason, the originator of IO, argued that market structure contributed greatly to profitability (Mason 1939; Roquebert et al. 1996).

Recently, the results of the IO research have suggested that a reciprocal relationship is likely to exist between the external environment and the firm's strategy that affects the firm's performance (Henderson and Mitchell 1997; Oliver 1997; Stimpert and Duhaime 1997; Hoskisson et al. 1999). Nevertheless, during the 1970s and 1980s, the IO studies were challenged by the strategic management perspective of RBV because of the inability of IO to explain the impact of intra-industry heterogeneity on firm profitability. The RBV school argues that the IO insistence on making industry the main unit of analysis based on the structure-conduct-performance framework renders the purely deterministic theories irreconcilable. In other words, rather than fixing the assumptions of industry structure independently of firm performance and making any development of resource differences between firms become short-lived, strategic management researchers of RBV that take an adaptive view of organizational and environmental change will argue that many firms can adapt their strategies and capabilities as competitive environments change, increasingly focusing

on individual firm factors to explain differences in intra-industry performance. In addition, strategic management researchers of RBV argue that firm-specific idiosyncrasies in the accumulation of valuable, rare and specialized resources create sustained competitive advantages (Rumelt 1984; Wernerfelt 1984; Barney 1991; Collis 1991; Conner 1991; Amit and Schoemaker 1993; Peteraf 1993). In fact, as early as the late 1930s, Nourse and Drury (1938) had suggested that firm-specific influences such as management skills basically determine a firm's advantages and performance.

Although the recent variance decomposition studies have attempted to determine the relative importance of industry and firm effects on firm profitability (e.g., Schmalensee 1985; Rumelt 1991), there has been disagreement for more than 60 years over IO and the strategic management perspective of RBV as to what matters most to profitability. In addition, while researchers even use many different terms for both 'capabilities' (e.g., competencies and resources) and 'competition' (e.g., industry structure and competitive markets), the basic theme of comparing the levels of firm and industry effects is similar. Overall, however, there is little consensus as to which of organizational capabilities and market competition is more important in shaping firms' actions and performance (Henderson and Mitchell 1997).

Following the variance decomposition approach of firm profitability determinants, studies of persistence, in terms of the convergence process, in relation to firm performance, have recently become a key theoretical and empirical issue in both the fields of IO and RBV (McGahan and Porter 1999). In explaining the sources of firm profitability that vary from the norm in the long term, IO adherents based on the existence of industry heterogeneity argue that industry effects are enduring, and observed firm effects arise because industrial structure characteristics, such as impeding entry and limiting rivalry among participants, favor business development. On the other hand, RBV adherents argue that firms achieve extraordinary profits in a line of business in the long term when they operate more efficiently through skill or luck than their competitors, and that observed industry effects may arise when they are transient compared to differences among firms. Thus, the IO and RBV approaches give rise to different perspectives over the question of what persists longer in terms of firm performance at the industry and firm levels.

Although studies on persistence have significantly advanced our understanding of the antecedents of firm profitability, they have tended to focus on firms with diversified business segments in a single country context (e.g., the United States or Spain). Recognizing that important differences exist across countries in terms of the extent to which profit differences persist (Geroski and Mueller 1990; Odagiri and Yamawaki 1986), this study examines the persistence in the impact of incremental components of industry and firm effects on profitability and tests the hypotheses that confirm to the above mainstream views on relative rates of persistence by employing China's business database.

The remainder of this study is organized as follows. In "Explaining the Development of China's Industrialization", a brief literature review considers the development of industrialization in China. Previous research examining the persistence of industry and firm effects largely follows the model used in Mueller (1986) and McGahan and Porter (1999). "The Model" proposes a similar decomposition model. Since the traditional accounting performance measure, the return on assets (ROA), accounts neither for the cost of capital nor for the accounting policies that

may distort the true value of the underlying measures, e.g., the value of assets, this study uses the alternative measures of performance, Tobin's Q and Altman's Z, to reflect the economic profit of the firm's future operating performance. The sample data used are discussed in "Data Sample and Statistics". Following the statistical methodology most commonly used by previous studies, this study employs the decomposition procedure to examine the persistence of performance differences among firms in China. The results in "Empirical Results" show that the incremental effects of industries on profitability persist longer than the incremental effects of firms. Finally, this study concludes with a discussion of the results as well as some final remarks.

Explaining the development of China's industrialization

In the late 1970s, China underwent an economic transition from a centrally-planned economy to a market system, while its political institutions remained under a communist system. Given the extent of state control over the Chinese economy (Scott 2002), the institutional environment is likely to have had far-reaching and profound effects on the profitability of Chinese firms (Park et al. 2006). On the other hand, the growth of the economy has been compounded by the rapid development of firms, and in recent years researchers of international business and strategy have endeavored to provide firm-level answers to address the intriguing puzzle centered around the ongoing Chinese economic reforms and hybrid control mechanisms, i.e., a mixture of central planning and market systems. Among many answers, one partial answer would suggest that the interpersonal networks (referred to as *guanxi* in Chinese) that are cultivated by managers within society may play a major role in driving firm strategies and performance (Peng and Heath 1996). Overall, in a transition economy like China, both formal and informal institutions that provide the context of competition among industries and firms, in combination with the IO and RBV views, shape the strategies and performance of firms (Hoskisson et al. 2000; Wright et al. 2005; Luk et al. 2008; Peng et al. 2008).

To sum up, this study would like to sketch a modern formal and informal institutional approach to firm performance and apply this to one of the most remarkable events in recent economic history, namely, the imminent rise of China as a world economic power. In addition, institutional effects occur when growth participants such as industries and firms take a particular course of action targeted by institutional intervention. To extend institutionalism along with the economics of industrial organization and a resource-based view of the firm, this study explores the persistence of performance differences among firms in China.

The model

Recent researchers, including Mueller (1986), Cubbin and Geroski (1987), Jacobson (1988), Waring (1996), McGahan and Porter (1999), and Bou and Satorra (2007), have examined the persistence of firm profits and, beginning with McGahan and

Porter (1999), the industry and firm effects have been decomposed into fixed components and incremental components. Since persistence is defined as the percentage of a firm's profitability in any period before period t that systematically remains in period t (Waring 1996), persistence is directly relevant to questions of sustainability in the incremental components of effects (McGahan and Porter 1999). Thus, this study defines persistence as the fraction of the incremental component at time $t-1$ that also rises at time t .

Investigating the persistence of firm and industry effects relies on the steps of persistence analysis, which is similar to Mueller (1986), Waring (1996), and McGahan and Porter (1999). The profit of each firm is partitioned into year, industry, and firm effects, where we calculate the persistence in the incremental components of the effects on profitability, and also test hypotheses that confirm to the IO and RBV views of relative rates of persistence. First, we partition the profit of each firm into year, industry and firm effects by using the following descriptive model:

$$r_{it} = \mu + \sum_t \phi_t d_t + \sum_{it} \alpha_{it} d_{it} + \beta_{it} \quad (1)$$

In this model, r_{it} is the accounting profit, i.e., the return on assets (ROA), of the firm in industry i at time t . μ denotes the average profit over all firms in all years. The term ϕ_t is the increment to profit shared by all firms in year t . α_{it} represents the incremental profit associated with participation in industry i in year t . The dummy variable, d_{it} , is equal to 1 if the observation applies to industry i at time t , and 0 otherwise. β_{it} is the residual in the regression and the incremental profit that is specific to the firm in industry i at time t .

To avoid the problems of accounting profitability generated by ROA, we use Tobin's Q and Altman's Z to capture the multidimensional nature of firm performance. Wernerfelt and Montgomery (1988) and McGahan (1999) used Tobin's Q as the performance measure to reflect investor expectations concerning firm value relative to asset replacement cost. Tobin's Q is traditionally defined as the capital market value of the firm divided by the replacement value of its assets. By incorporating a capital market measure of firm rents, Q implicitly uses the correct risk-adjusted discount rate, imputes equilibrium returns, and minimizes distortions due to tax laws and accounting conventions. Therefore, theoretically, Tobin's Q is a much more appealing measure than accounting returns. We calculate Tobin's Q by using the sum of the market value of equity, the book value of debt, and deferred taxes divided by the book value of total assets minus intangible assets (Thomas and Waring 1999; Short et al. 2007).

Altman's Z is a measure of default risk or bankruptcy propensity. This is a measure of the financial health of a company and a diagnostic tool that forecasts the probability of a company entering bankruptcy within a 2-year period. It uses multiple discriminant analysis combined with a set of 5 financial ratios to come up with the Z-Score. The advantage of multiple discriminant analysis is that many characteristics can be combined into a single score. The Z-score has proven to be successful in the real world. It correctly predicted 72 % of bankruptcies 2 years prior to the event.

Data sample and statistics

Data

The data set for this study is derived from the TEJ China data set, which covers macro-economic indicators and financial reports for companies listed and traded on the Shenzhen and Shanghai Stock Exchanges. This study uses seven annual reports of the TEJ covering the period 2000–2006 to compile the dataset, which includes the information needed to calculate Tobin's Q and Altman's Z. The complete TEJ China dataset for 2000 to 2006 contains 1,544 firms. From the report, we eliminate some firms whose reports had missing values over the observed period (2000–2006). After screening, our final sample contains 5,565 observations for 795 firms across 22 industry classifications. The industry classifications and the numbers of firms in the final sample are listed in Table 1.

Statistics

To calculate the persistence in the incremental components of the effects on economic profit, we follow the previous assumption that the incremental component may follow a first-order autoregressive process, AR(1). McGahan and Porter (1999) showed that the biased estimates of the persistence rate yielded by the ordinary-least-squares (OLS) estimation can be corrected by using the formula developed by Nickell (1981), and concluded that the OLS estimation is more efficient than Nickell's formula. Since there is no significant difference between the OLS estimates and unbiased estimates, we adopt the OLS estimation only, collect the estimates of the persistence rate from the firms in our data set, and average them across firms by weighting each persistence estimate by the inverse of the variance of the estimate.

In order to calculate the sampling variance of the estimate of $\rho_{Fm,i}$, for example, the current study follows the standard formula for the sampling

Table 1 Industry classifications and numbers of firms in the sample data

Industry classification	No. of firms	Industry classification	No. of firms
Agricultural, forestry, fishery, and husbandry	20	Water, electricity and gas	30
Pharmaceutical and biotechnology	44	Transportation and storage	31
Mining	7	Other manufacturing	9
Food and beverage	40	Construction	13
Textile and apparel	34	Information technology	51
Wood and furniture	2	Wholesale and retail	65
Paper making and printing	13	Finance & insurance	3
Petrochemical and plastic	88	Real estate	46
Electronic	22	Social service	29
Metal and non-metal	66	Communication culture	6
Machinery & equipment	118	Others	58

variance, i.e., $Var(\rho_{Fm,i}) = \sigma_{\beta}^2 / (n \times Var(\beta_{it}))$, and the standard formula for the population variance with the inclusion of the estimated persistence rate, $est(\rho_{Fm,i})$, i.e., $\sigma_{\beta}^2 = (nVar(\beta_{it}) - est(\rho_{Fm,i})^2 nVar(\beta_{it-1})) / n - 2$, where n represents the number of years of firm data. This approach is also expressed in McGahan and Porter (1999)'s study. Substituting the latter formula of the population variance into the former expression, the sampling variance of the persistence estimate of $\rho_{Fm,i}$ is given by

$$Var(\rho_{Fm,i}) = \frac{Var(\beta_{it}) - est(\rho_{Fm,i})^2 Var(\beta_{it-1})}{(n - 2)Var(\beta_{it-1})} \quad (2)$$

From the previous literature, the IO and RBV schools have different views regarding the estimated rates of persistence on the incremental components of the industry and firm effects, i.e., between $\rho_{In,i}$ and $\rho_{Fm,i}$. While the IO school suggests greater persistence in the incremental industry effects than in the incremental firm effects, i.e., $\rho_{In,i} > \rho_{Fm,i}$, the RBV school suggests greater persistence in the incremental firm effects than in the incremental industry effects, i.e., $\rho_{Fm,i} > \rho_{In,i}$. This investigation uses the t -statistic to test these hypotheses of significant differences between the pair of persistence estimates as implied under the IO and RBV views. If the empirical results are consistent in both sets of estimates, then we interpret the IO and RBV perspectives of the persistence of profitability as being robust.

Empirical results

Table 2 shows the results by effect. Following McGahan and Porter (1999) and Bou and Satorra (2007), we partition the performance in two different ways. First, the set of estimates is obtained by introducing the means in the order of year, industry, and firm effects. This order in terms of introducing the means is more consistent with an industry view. Second, the introduced effects in the order of year, firm and industry tend to be consistent with the resources-based view. The first two sections in the table show the results of this study by using the performance measures of Tobin's Q and Altman's Z, while the third section presents the results of McGahan and Porter (1999). The first column of each section shows the average and standard deviation of each estimated effect in percentage terms. In the case of both results for the partitioning of profits in the first section (Tobin's Q), the firm effects are larger than the industry effects, and the industry effects are larger than the year effects. In the second section (Altman's Z), the same relationships between the effects arise.

The persistence rates are relevant for discriminating among the implications of the industrial organization economic and resource-based views. In the results for Tobin's Q, the incremental component of the industry effect is estimated to persist at an average rate of 51.3 % to 55.9 %, whereas the incremental component of the firm effect is estimated to persist at an average rate of 43.7 % to 48.4 %. We test for the relationship between the persistence of the incremental components of the industry and firm effects by calculating a t -statistic for the distribution of differences between the pair of estimates for each firm. The results for the t -statistic are 11.537 and

Table 2 Empirical results

Current: Tobin's Q					
Estimated effects in percent	Year	Industry	Firm		Sum
Order of introduction: Year, industry, firm					
Average	-0.012	0.076	0.809		0.872
Standard deviation	0.446	0.416	1.810		2.010
Avg. fixed component	-0.440	-0.052	-0.714		-1.206
Avg. incremental component	0.531	0.385	1.678		2.594
Persistence rates					
Avg. estimate	0.515	0.513	0.437		1.464
Std. dev. estimate	0.126	0.152	0.109		0.387
Order of introduction: Year, firm, industry					
Average	-0.012	0.010	0.875		0.872
Standard deviation	0.446	0.404	1.803		2.010
Avg. fixed component	-0.440	-1.028	1.070		-0.398
Avg. incremental component	0.531	1.174	-0.504		1.201
Persistence rates					
Avg. estimate	0.515	0.559	0.484		1.558
Std. dev. estimate	0.126	0.140	0.103		0.369
Current: Altman's Z					
Estimated effects in percent	Year	Industry	Firm		Sum
Order of introduction: Year, industry, firm					
Average	-0.108	0.548	6.427		6.867
Standard deviation	0.852	4.229	47.493		48.104
Avg. fixed component	-0.391	-0.864	-1.711		-2.965
Avg. incremental component	0.588	1.972	55.994		58.554
Persistence rates					
Avg. estimate	0.225	0.193	0.119		0.536
Std. dev. estimate	0.388	0.221	0.040		0.649
Order of introduction: Year, firm, industry					
Average	-0.108	-0.193	7.168		6.867
Standard deviation	0.852	8.590	47.483		48.104
Avg. fixed component	-0.391	-5.118	1.337		-4.172
Avg. incremental component	0.588	6.927	49.428		56.943
Persistence rates					
Avg. estimate	0.225	0.193	0.111		0.528
Std. dev. estimate	0.388	0.014	0.036		0.437
McGahan and Porter (1999): ROA					
Estimated effects in percent	Year	Industry	Corp.	Segment	Sum
Order of introduction: Year, industry, corporate, segment					
Average	0.026	1.978	0.741	5.722	8.468
Standard deviation	1.228	6.339	6.093	11.125	11.256
Avg. fixed component	1.444	1.139	2.591	9.176	7.217
Avg. incremental component	-1.488	1.194	-2.230	-3.982	0.779

Table 2 (continued)

Persistence rates					
Avg. estimate	0.684	0.818	0.536	0.479	0.537
Std. dev. estimate	0.223	0.330	0.140	0.283	0.213
Order of Introduction: Year, corporate, segment, industry					
Average	0.026	-2.705	1.908	9.239	8.468
Standard deviation	1.228	9.092	6.101	16.041	11.257
Avg. fixed component	1.444	-5.209	-0.512	6.957	7.217
Avg. incremental Component	-1.488	3.198	4.179	1.497	0.779
Persistence rates	0.684	0.662	0.560	0.457	0.537
Avg. estimate	0.223	0.392	0.186	0.257	0.213
Std. dev. estimate					

12.319, respectively. Both of them reject the null hypothesis that incremental industry effects persist at the same rate as the incremental firm effects with 99.5 % confidence. Thus, the incremental industry effects are more persistent than the incremental firm effects. The results for Altman's *Z* are also consistent with industrial organization economic hypotheses, where the *t*-statistics for the two different partitioning orders are 9.257 and 60.745.

Discussion

The findings from this research broaden and deepen our understanding of the variance decomposition study and how the persistence analysis of incremental industry and firm effects is linked to firms' economic performance in China. Much of the early variance decomposition research focused on the sources of firm performance that vary from the norm, rather than on which effect persists longer due to the firm's economic performance. For example, Park et al. (2006) have shown that firm effects dominate industry effects in relation to profitability differentials among firms in China. However, a study dedicated to exploring the question of whether the competitive advantages of Chinese firms have persisted for longer than their industry influences has not yet been put forward. Thus, the current study that addresses the issue of whether firm effects persist longer than industry effects serves to advance our understanding of the antecedent of a firm's economic profitability.

The empirical results show that the impact of incremental industry effects on economic profitability persists for longer than incremental firm effects. Thus, the impact of industry effects on the long-term economic performance of firms in China is more predictable than that of firm effects. This result is the same as McGahan and Porter's (1999) persistence findings that industry effects are more sustainable than firm effects in the case of U.S. firms. Previous research in developed economies has emphasized that institutional and market forces serve as major drivers of firms' strategic adaptation (D'Aunno et al. 2000). However, institutional constraints and the lack of developed factor markets limit the applicability of these market forces in China, and new theoretical and empirical

perspectives relevant to this specific environment are urgently needed (Hoskisson et al. 2005). The most important implication behind the empirical results is the phenomenon of *industry dynamics* that has existed in the development of industrialization in China. Several underlying factors may explain the industrial dynamic environment that is related to the sustainable results of industry effects on firm economic performance in China.

First, *industrial clustering* is a necessary and sufficient factor accounting for a firm's long-term economic performance in China. After the success of the first Chinese industrial system in the Pearl River Delta in the 1990s, the Chinese government continued to facilitate industrial development by establishing many new territorial industrial systems and providing considerable resources and manpower to achieve a superior production environment that could then contribute to overall economic development. These industrial systems vary in accordance with standing conventions that legitimize the exploitation modes of resources and constraints (Storper 1997), and define the inter-firm relations and the corresponding governance mechanisms. Well-established industrial systems involving comprehensive legislation and resources offer a competitive production environment and management services that increase firms' competitive advantages, and make firms' long-term economic profitability more sustainable. Therefore, we argue from the findings for the sustainable industry effects that appropriate government interventions in establishing many industrial systems may impact firms' long-term economic profitability in China.

Second, while government-developed industrial systems are characterized by a government intervention mode, important *contextual* factors may also contribute to explanations of predictable industry effects on firm development and long-term profitability in China. These factors include the development of market institutions, higher levels of government intervention, industry structures, ownership patterns, and enforcement of business laws (Filatotchev et al. 2003; La Porta et al. 1998; Peng 2003). Finally, China is the largest and the fastest-growing transition economy in the world, having been transformed from a command to a market economy (Child and Tse 2001). Non-market institutions, particularly those with government involvement, remain influential in transition economies (Boisot and Child 1988; Kornai 1992; Walder 1995; Buck et al. 2000; Child and Tse 2001; Thun 2006). For example, many industries in China are influenced by the entrenched, centrally-planned economic system (Nee 1992; Boisot and Child 1996; Peng and Heath 1996). In addition, emerging economies like China tend to have more fundamental and comprehensive changes introduced to the formal and informal rules of the game that affect firms as players (Peng 2003). Therefore, we argue from the results of sustainable industry effects that *institutions*—both formal and informal—matter for economic growth (Peng 2004), but also impact firms' long-term economic profitability in China.

Faced with the above necessary and sufficient industrial characteristics, industrial clustering, the state's role in actively intervening in the structure, and institutions that may impact firms' long-term profitability in China, we argue from the empirical findings that international firms—both MNCs and SMEs—should rely on their intra-organizational capabilities to respond strategically to these necessary and sufficient industrial conditions for long-term profitability.

Concluding remarks

Faced with a ‘high velocity’ environment of rapid political, economic, and institutional changes that are accompanied by relatively underdeveloped factor and product markets in China, international firms—both MNCs and SMEs—must create the need for upgrading and re-configuring existing resources and capabilities if they want to survive in the long run (Wright et al. 2005). For researchers interested in tracking the successes and failures of international firms in China, several underlying capabilities may explain how they make their strategy work.

First, as development occurs, international firms may reconsider their mode of operation and even their presence in emerging economies including China. From recent developments of the RBV, organizational theorists strongly emphasize that the development of *strategic flexibility* is important for firms to take advantage of existing and new strategic opportunities when facing the continuously changing market conditions and ever-increasing environmental uncertainty in emerging economies (Filatotchev et al. 2000; White 2000; Uhlenbruck et al. 2003). Strategic flexibility is the joint outcome of managers’ flexibility in applying a firm’s resources to alternative courses of action and in coordinating the use of resources (Sanchez 1995). Uhlenbruck et al. (2003) suggest that the managers’ flexibility in re-configuring, developing, and using resources is most critical in distinguishing the successful from the unsuccessful firms in emerging economies.

Second, the RBV research on local start-ups in emerging economies has primarily focused on *networks* and relationships as crucial value-adding resources leading to better firm performance (Batjargal 2003; Peng 2001; Peng and Luo 2000). In addition, Puffer and McCarthy (2001) argue that entrepreneurs in highly turbulent environments may stand out even among their entrepreneurial peers around the world, since a special breed of people is almost required in order to survive and hopefully prosper there. Therefore, there is an urgent need to study how managers’ networking capabilities influence their responses to environmental pressures and the internal dynamics of the firm’s strategic flexibility. It is important to note that networks may be more difficult to operate in developed economies because of the legal and institutional infrastructure that prevents the fluid operation of such networks due to intellectual property right laws and other laws restricting cooperation or collusion among firms (Wright et al. 2005). However, to increase the likelihood of survival, we imply from the empirical findings that international firms—both MNCs and SMEs—have to develop their strategic flexibility and networking capabilities to overcome the lack of market institutions in China.

Finally, the empirical results of this study indicate that industry effects are able to generate more incremental benefits to economic profit in the long run. We argue that for strategy research in the area of variance decomposition approach to flourish and have a lasting contribution there is a need to consider the extent of unique social, political and economic contexts, as well as the firm characteristics of emerging economies. Thus, we have examined persistence analysis in the context of long-run economic profitability among firms in China by applying the conventional theories and methodologies, and believe that the empirical results are important to the conventional wisdom regarding firm behavior in China, and provide evidence as to what drives the long-term economic performance of international firms—both MNCs and SMEs—in China.

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