ARE EMERGING ECONOMIES LESS EFFICIENT?
PERFORMANCE PERSISTENCE AND THE IMPACT
OF BUSINESS GROUP AFFILIATION

AYA CHACAR1 and BALAGOPAL VISSA2*
1 College of Business Administration, Florida International University, Miami, Florida, U.S.A.
2 INSEAD, Singapore

By drawing a theoretical distinction between the persistence of superior and poor performance, we reconcile the conflicting predictions of the 'revisionist' and accepted views on the persistence of firm performance in emerging economies. Using a sample of manufacturing firms in the United States and India, we show that superior firm performance in emerging economies persists only as much as developed economies in line with the revisionist argument. We also provide evidence consistent with the accepted view that poor firm performance persists longer in emerging economies compared to developed economies. Further exploration of the latter shows that, contrary to predictions of extant theories, firms in emerging economies that are affiliated with an MNC or a business group have a greater persistence of poor performance than firms that are unaffiliated with these intermediate governance structures, and hence would be better off operating at arm’s length.

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The convergence hypothesis from the neoclassical theory of competitive markets states that both above- and below-average profits will converge towards the same mean. Poorly performing firms will improve their performance by redirecting resources to more lucrative activities, imitating profitable firms, or by replacing their managers with more effective ones. If not, these firms will eventually go out of business. Similarly, firms with superior performance will see their performance erode over time through imitation and competition.

Researchers have stressed, however, that this theory does not apply in its pure form. Friction in the form of obstacles to competition, imitation and resource redeployment is hypothesized to slow down convergence and lead to performance persistence. This argument is supported by empirical evidence that shows convergence is imperfect at best (e.g., Jacobsen, 1988; Mueller, 1986, 1990). However, empirical research has mostly used the United States as a setting and has ignored the impact of differences in the national institutional environment on firms’ performance despite their demonstrated importance (e.g., Fauver, Houston, and Naranjo, 2003; North, 1990; Wan and Hoskisson, 2003). In fact, the accepted view seems to be that firms in emerging economies (hereafter EE) are embedded in institutional environments that do not favor competition (e.g., Hoskisson et al., 2000), suggesting greater persistence. More recently, however, some revisionist scholars have argued exactly the opposite, stating that competition is just as strong and alive, or even greater in EE (e.g. Glenn, Lee, and Singh, 2001; Tybout, 2000). Faced with these opposing views, where does reality lie? Does firm performance persist more or less in EE than in developed economies (hereafter DE)?

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*Correspondence to: Balagopal Vissa, INSEAD, 1, Ayer Rajah Ave., Singapore 138676. E-mail: Balagopal.vissa@insead.edu

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To resolve this theoretical debate, this paper develops a theory of performance persistence in emerging and developed economies which brings the contrasting views closer by making a distinction between the drivers of persistence of superior and poor firm performance. We find that theory alone cannot predict the aggregate effects of institutional differences on the persistence of performance of firms with above average performance, but we also find that theory strongly indicates that below-average performance will persist more in EE. The empirical tests on the full sample of manufacturing firms in India and the United States confirm that persistence of below average performance is greater in India and show that there is no difference between the persistence of performance in firms with above average performance.

In addition to exploring differences in performance persistence in DE and EE, we also explored the impact of alternative governance structures on performance persistence in EE. Extant theory predicts that differences in performance can disappear if the firm is embedded in certain intermediate governance structures. The theory predicts that intermediate governance mechanisms, such as business groups, emerge to fill institutional voids that may cause lower performance (e.g., Caves, 1989; Leff, 1978), and/or to use their power to capture rare resources (e.g., Hillman and Hitt, 1999), suggesting that firms governed in this way will have a performance advantage. Contrary to the theory’s predictions, our empirical tests show that firms affiliated with business groups or MNCs have a higher persistence of poor performance.

**Theoretical Framework**

Current research on firm performance persistence is primarily within a single-country context and implicitly assumes that either national institutional contexts do not influence performance persistence or that their effects on performance persistence are homogenous across countries. However, institutional economists have shown that the institutional context of an economy—the combination of formal rules, informal constraints, and their enforcement characteristics—varies significantly across countries and has an important influence on firms’ strategic actions and outcomes (North, 1990). In line with institutionalists’ work and others (e.g., Wan and Hoskisson, 2003), we contend that the national institutional context has a significant direct influence on competitive intensity and will therefore influence firm performance persistence. By defining the rules of the game, the national institutional context prohibits certain kinds of exchanges of inputs and outputs with other actors and thus shapes the competitive intensity faced by firms. For example, to the extent that antitrust laws make it costly to collude, the competitive intensity facing firms will be greater. Since the construct of national institutional context is very broad, we focus here on the regulations that influence the market process in product markets and factor markets for labor and capital which are most relevant for firm performance persistence to help us gain theoretical traction (Chesbrough, 1999; Khanna and Palepu, 1997). While prior research has focused primarily on persistence of superior performance (see Roberts and Dowling, 2002, for an exception), we show below that separately examining the drivers of persistence of poor and superior performance sheds new light on the importance of the institutional context.

**Institutional effects and the persistence of superior performance**

Superior performance will persist longer when the institutional environment dampens competitive and imitative pressures (Scherer, 1980). Unfortunately, the arguments reviewed below suggest that theory alone is not sufficient to enlighten us on how the institutional environment will affect the persistence of superior performance in EE vs. DE.

The accepted view argues that collusion is easier in EE because of less well-developed antitrust regulations (Knack and Keefer, 1997) as well as greater industry concentration owing to smaller size of product markets, thus increasing the persistence of superior performance (Maskus and Lahouel, 2000). However, revisionist arguments stemming from theoretical models of industry evolution suggest that in the presence of turnover, concentration need not be conducive to collusive behavior (Hoppenhayn, 1992). The econometric literature on plant and job turnover also shows strong competitive pressures in EE (see Tybout, 2000, for a review), pressures that have been significantly increasing with growing market globalization (e.g., Zaheer and Zaheer, 1997).
The accepted view also suggests that superior performance may persist because of the paucity of *de novo* imitators. Financing and entry of new firms in EE may be more difficult because of inefficient information markets and contract enforcement laws (Tybout, 2000) as well as incumbents’ use of their market and political power to stymie entry (Ghemawat and Khanna, 1998). However, revisionist arguments remind us that since intellectual property regulations are generally weaker in EE (e.g., Jain, 1996), imitation is easier and thus likely to lead to a lesser persistence of superior performance in EE. In sum, we are unable to choose between the accepted and revisionist views and instead need to resort to empirical testing of the hypotheses suggested above as follows:

**Hypothesis 1a (Accepted view):** Superior firm performance will persist longer in emerging economies when compared to developed economies.

**Hypothesis 1b (Revisionist view):** There is no difference in the persistence of superior firm performance between emerging economies and developed economies.

Institutional effects and the drivers of persistence of poor performance

Poor performance will persist when the institutional environment dampens competitive pressures in factor markets and prevents resource redeployments from poorly performing firms (Scherer, 1980). In particular, the rigidity of the labor market—the extent to which hiring and firing practices of unskilled labor by firms are regulated—usually characteristic of EEs, often imposes legal constraints on managers and owners in EE in their efforts to take the necessary action to regain profitability (Tybout, 2000). Such institutional constraints are likely to increase the power of dependent actors, such as workers, who benefit more from the maintenance of an organization regardless of its performance (Meyer and Zucker, 1989), suggesting that poor firm performance will persist longer in EE compared to DE.

Improvement from poor performance in EE is also dampened by the poorly developed markets for corporate control—a critical disciplinary mechanism to minimize agency costs and ensure that managers work towards maximizing shareholder value (Manne, 1965). Further, greater information asymmetry between buyers and sellers in EE contributes to the underdevelopment of markets for mergers and acquisitions (Myers and Majluf, 1984). Non-executive directors in EE are also likely to have less authority and legitimacy to monitor and discipline managerial action when compared to developed economies (e.g., Dutta, 1997). Finally, these rational reasons for persisting poor performance are compounded by the social stigma associated with failure and bankruptcy in EE (e.g., Dutta, 1997), which leads to costly delays in exit in the hope of a turnaround. In sum, the theory here shows greater support for the accepted view than the revisionist view, suggesting the following hypothesis:

**Hypothesis 2:** Poor firm performance will persist longer in emerging economies when compared to developed economies.

Alternative governance mechanisms and persistence of poor performance

In the section above, we predicted that poor performance will persist longer in EE. However, both power and transaction costs theories suggest this need not be the case for all firms. These theories argue that firms that are affiliated with certain intermediate governance structures in EE may avoid the negative effects of a ‘weaker’ institutional environment and lead to reduced persistence of poor performance due to reduced information asymmetries and preferential access to valuable resources, including preferential treatment by the government, as explained below.¹

Information asymmetries

Transaction cost economics (TCE) (e.g., Dyer, 1996; Williamson, 1985) suggest that alternative governance structures that reduce information asymmetries, such as hierarchies and networks, will emerge to fill the void created by market

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¹ Arguably, EE firms that are affiliated with business groups are embedded in a network mode of governance (Powell and Smith-Doerr, 1994), while EE firms that are subsidiaries of foreign multinational corporations are embedded in a more hierarchical mode of governance (Gupta and Govindarajan, 1991). Alternative conceptualizations of the MNC as a differentiated network (Ghoshal and Bartlett, 1990) are also consistent with the view that subsidiaries of MNCs are subject to a non-market governance mechanism.
failures. While hierarchical modes of governance reduce information asymmetries through formal communication and management control systems (March and Simon, 1958), a network mode of governing exchanges is conducive to the transfer of rich information between the exchange partners (Uzzi, 1996), significantly reducing information asymmetries. The headquarters of multinational corporations have a substantial degree of administrative control over their subsidiaries in EE (Gatignon and Anderson, 1988) and can monitor and discipline poorly performing subsidiary managers. Similarly, business groups, controlled by a single extended family (Piramal, 1996) and characterized by a dense network of economic, kinship, and ethnicity relations across their members, could discipline poorly performing managers of member firms because their dense network ties enable flow of accurate and timely information. In other words, business groups or the overseas headquarters of foreign MNCs could substitute for the market for corporate control in EE and adequately monitor and discipline poorly performing managers.

Resource access

Poorly performing EE firms that are subsidiaries of foreign multinational corporations could also gain access to the foreign MNC parent’s valuable resources such as managerial talent, capital, or technological capability (Birkinshaw, Morrison, and Hulland, 1995) to quickly recover from poor performance. Similarly, poorly performing EE firms affiliated with a business group can gain preferential access to the group’s valuable resources such as reputation, managerial talent, or capital (e.g., Khanna and Palepu, 2000a) that could enable a speedy recovery from poor performance.

While extant theory generally emphasizes the efficiency of alternative governance structure in accessing valuable resources, business groups or MNCs, due to their importance to the economy, may have the power to access a highly valuable resource in EE: preferential access to governments (Krueger, 1974; Bhagwati, 1982). This preferential access to government could also lower the barriers to exit and resource redeployment that these firms face.

Whether power or efficiency arguments in theories on intermediate government structures are considered, the conclusion is the same. Members of intermediate governance structures in EE should exhibit a lower persistence of poor performance, i.e., recover quicker. As such, the above arguments thus suggest the following hypothesis:

**Hypothesis 3:** Poor performance by unaffiliated emerging economy firms will persist more than poor performance by affiliated emerging economy firms (i.e., firms that are subsidiaries of foreign multinational corporations or firms affiliated with a business group).

**METHODS**

The ideal way to test the theory developed in this paper would be to measure the direct impact of country-level differences in institutional factors on firm-level performance persistence, and their indirect effect via industry and firm-level drivers. Considering the ideal design requires long time series of firm performance data from many different countries and measures of firm and the near impossibility of obtaining this data, we proceeded in the following manner. We used data from a developed economy (the United States) and an emerging economy (India), two large countries that fell on opposite extremes in terms of the development of their institutional environment, as shown in Table 1.2

Choosing the United States also enables us to calibrate our results with past research, while choosing India enabled us to access a large and reliable EE dataset. Our study includes the full population of manufacturing firms in India (drawn from PROWESS) and the United States (drawn from COMPUSTAT) during the period 1989–99. The sample used contains 25,509 observations from 4325 manufacturing firms in India and 31,600 observations from 4562 manufacturing firms in the United States. Details on the procedure used to obtain the sample and further details on the methods used can be obtained from the authors.

**Models and measures**

Performance persistence is defined as the percentage of a firm’s performance from previous periods

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2 For example, labor laws in India give strong protection to workers, with establishments beyond 100 workers requiring government permissions for lay-offs, which are almost never given because of the likely political fallout as opposed to the system of ‘hire and fire’ in the United States.
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Table 1. Country institutional differences between India and the United States

<table>
<thead>
<tr>
<th>Institutional Element</th>
<th>Metric</th>
<th>Scores</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Political institutions</strong></td>
<td>Extent of corruption in government&lt;sup&gt;a&lt;/sup&gt;</td>
<td>8.6</td>
</tr>
<tr>
<td>(i) Corruption in government</td>
<td>Risk of outright confiscation or forced nationalization&lt;sup&gt;a&lt;/sup&gt;</td>
<td>10</td>
</tr>
<tr>
<td>(ii) Expropriation risks</td>
<td>Assessment of the law and order tradition in a country by ICR&lt;sup&gt;a&lt;/sup&gt;</td>
<td>10</td>
</tr>
<tr>
<td><strong>Legal institutions</strong></td>
<td>Efficiency and integrity of the legal environment as it affects business, particularly foreign firms&lt;sup&gt;a&lt;/sup&gt;</td>
<td>10</td>
</tr>
<tr>
<td>(iii) Rule of law</td>
<td>Extent to which antitrust laws prevent unfair competition in the country&lt;sup&gt;b&lt;/sup&gt;</td>
<td>6.5</td>
</tr>
<tr>
<td>(iv) Judicial efficiency</td>
<td>Extent to which intellectual property is adequately protected in the country&lt;sup&gt;b&lt;/sup&gt;</td>
<td>7.3</td>
</tr>
<tr>
<td><strong>Product and factor market institutions</strong></td>
<td>Extent to which stock markets provide adequate financing to companies&lt;sup&gt;c&lt;/sup&gt;</td>
<td>8.3</td>
</tr>
<tr>
<td>(i) Strength of anti-trust laws</td>
<td>Country credit rating&lt;sup&gt;d&lt;/sup&gt;</td>
<td>89.1</td>
</tr>
<tr>
<td>(ii) Strength of intellectual property rights laws</td>
<td>Number of completed hostile or unsolicited acquisitions&lt;sup&gt;e&lt;/sup&gt;</td>
<td>142</td>
</tr>
<tr>
<td>(iii) Stock market development</td>
<td>Ease of hiring and firing workers&lt;sup&gt;b&lt;/sup&gt;</td>
<td>6.8</td>
</tr>
<tr>
<td>(iv) Capital market development</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(v) Strength of markets for corporate control</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(vi) Labor market rigidity</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Higher scores indicate better-developed institutions.

Sources: <sup>a</sup> La Porta <i>et al.</i> (1998); <sup>b</sup> World Competitiveness Yearbook (1992); <sup>c</sup> World Competitiveness Yearbook (1997); <sup>d</sup> Fauver <i>et al.</i> (2003); <sup>e</sup> SDC Platinum database

that still remains in the current period. We test for persistence of performance using a fixed-effects dynamic panel data method (Hsiao, 1986,) in conjunction with Nickel’s (1981) bias correction (see McGahan and Porter, 1999, for a similar application). The base model used is

\[
P_{j,t} - P_{j,.} = b \ast (P_{j,t-1} - P_{j,.}) + (e_{j,t} - e_{j,.})
\]

where \( P_{j,t} \) is the performance of firm \( j \) at time \( t \), \( e_{j,t} \) is the error term and \( b \), the coefficient of the lagged performance variable, is the measure of persistence. The ‘.’ in the subscript indicates averaging over that subscript.

To statistically test for the difference in persistence between emerging and developed economies (respectively unaffiliated and affiliated EE firms), Equation 1 is modified by adding a dummy variable that flags emerging economy (i.e., Indian) firms (respectively unaffiliated firms), which interacts with the lagged performance measure, as given below:

\[
P_{j,t} - P_{j,.} = b \ast (P_{j,t-1} - P_{j,.}) + c \ast ((P_{j,t-1} - P_{j,.}) \ast \text{Dummy}) + (e_{j,t} - e_{j,.})
\]

We tested Model 2 with the emerging economy dummy on subsamples of superior and poor performers, obtained by classifying firms whose performance in the first 2 years after their entry into their country sample was greater than the average performance in their country as superior performers. We also tested Model 2 with the unaffiliated dummy on the subsample of poor performers in India.

**Performance measures**

Performance is defined as the relative profitability advantage enjoyed by a firm in period \( t \) and is measured by normalized returns (NROA) and firm-specific rent (FSR). NROA normalizes a firm’s returns when compared to the economy as a whole by removing the cyclical component of economy-wide profitability changes but retaining industry-level differences. Firm-specific rent normalizes a firm’s return compared to its industry at the 3-digit SIC code and thus corrects for fixed industry effects following Waring (1996).

Both FSR and NROA are computed using post-tax ROA as the measure of firm profitability, since it is an appropriate signal for resource allocation despite ROA being a potentially biased and noisy...
indicator of ‘true’ economic returns (see Mueller, 1990). Using stock market measures of profitability such as Tobin’s q is not feasible because of lack of data and an underdeveloped capital market in India.

Note that obtaining NROA and FSR after normalizing firm returns within each country sample eliminates the possibility of spurious results driven by systematic differences in accounting practices between U.S. and Indian firms.

Other measures

*Indian firm dummy*
This variable takes the value of 1 for all Indian firms and 0 for all U.S. firms.

*Unaffiliated Indian firm dummy*
This variable takes the value of 1 for all Indian firms that are neither subsidiaries of foreign multinational corporations nor part of a business group and 0 for all other firms.

*Business group dummy*
As in Khanna and Palepu (2000a), we adopt the classification of firms into groups available in the database that we use. This variable takes the value of 1 for all Indian firms that are part of a business group and 0 for all others.

*Subsidiary of a foreign MNC dummy*
This variable takes the value of 1 for all firms that are affiliated with an MNC and 0 for all others. Again, we follow the classification made in PROWESS to identify MNC subsidiaries.

RESULTS

We show below separately our results on performance persistence in the United States vs. India (testing Hypotheses 1 and 2) and the results on the performance persistence of affiliated firms in an EE context (testing Hypothesis 3).

Persistence of performance

To calibrate our results to past studies, we first estimated persistence for subsamples of superior and poor performers. Table 2 presents the regression results of the analysis. Models 1–4 report the results for the full sample. Model 1 includes only the lagged performance variable, measured as NROA, and, as can be seen, the coefficient of *Lagged performance* is significant and positive. This coefficient of 0.44 is the proportion of the previous year’s performance that persists in the current period. In Model 2, the interaction term, *Indian firm dummy* × *Lagged performance* is added to Model 1 to test for differences in persistence between India and the United States. *Indian firm dummy* × *Lagged performance* is positive and significant, indicating that overall Indian firms have a statistically higher persistence of performance when compared to U.S. firms. While U.S. firms have a persistence of 0.39, Indian firms have a persistence of 0.51 [= 0.39 + 0.11]. Models 3 and 4 replicate these results with FSR used as the dependent variable.

Models 5–8 of Table 2 show that the persistence of superior performance ranges from 0.41 to 0.43. Whether performance is measured by NROA (Model 6) or FSR (Model 8), the interaction term *Indian firm dummy* × *Lagged performance* is positive but not significant, showing no difference in the persistence of superior performance in India and the United States, supporting Hypothesis 1b (revisionist view).

Models 9–12 show that the persistence of poor performance ranges from 0.36 to 0.46. Models 10 and 12 in Table 2 show that the interaction term *Indian firm dummy* × *Lagged performance* is positive and significant for both NROA and FSR measures of performance, suggesting that poor firm performance in India persists more than poor firm performance in the United States, strongly supporting Hypothesis 2. Poorly performing U.S. firms have a persistence of 0.37 when NROA is used as the measure of performance, with corresponding Indian firms having a persistence of 0.57 [= 0.37 + 0.20]. Similarly, U.S. firms have a persistence of 0.36 when FSR is used as the measure of performance, while Indian firms have a persistence of 0.55 [= 0.36 + 0.19].

Figure 1 provides a graphical summary of these results. Theoretical considerations suggested by Hypotheses 1a (accepted view) and 2 indicate that the observed pattern of persistence of performance in emerging and developed economies ought to be
Table 2. Regression results on the persistence of firm performance of Indian and U.S. manufacturing firms

<table>
<thead>
<tr>
<th>Variables</th>
<th>Panel A: Full sample</th>
<th>Panel B: Superior performers</th>
<th>Panel C: Poor performers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>NROA #1</td>
<td>FSR #2</td>
<td>NROA #3</td>
</tr>
<tr>
<td>Lagged performance</td>
<td>0.44***</td>
<td>0.43***</td>
<td>0.43***</td>
</tr>
<tr>
<td></td>
<td>(39.7)</td>
<td>(38)</td>
<td>(38)</td>
</tr>
<tr>
<td>Indian firm dummy ×</td>
<td>0.11**</td>
<td>0.10**</td>
<td>0.02</td>
</tr>
<tr>
<td>Lagged performance</td>
<td>8.9</td>
<td>8.0</td>
<td>1.0</td>
</tr>
<tr>
<td>F-value</td>
<td>1571***</td>
<td>828***</td>
<td>1433***</td>
</tr>
<tr>
<td>N obs.</td>
<td>46,487</td>
<td>46,487</td>
<td>46,487</td>
</tr>
<tr>
<td># firms</td>
<td>8,763</td>
<td>8,763</td>
<td>8,763</td>
</tr>
<tr>
<td>Adjusted $R^2$</td>
<td>0.039</td>
<td>0.041</td>
<td>0.036</td>
</tr>
</tbody>
</table>

All models estimated using fixed-effects dynamic panel data analysis on the pooled sample of Indian and U.S. manufacturing firms during the period 1990–99. Table contains non-standardized regression coefficients corrected for bias using Nickel’s formula. $t$-Statistics in parentheses. Results are reported for NROA and FSR.

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$ (all two tailed tests)
Figure 1. Convergence of superior and poor performance in India and the United States as indicated by the dashed lines in Figure 1. However, our empirical results point towards the pattern shown using the solid lines, where stickiness of superior performance is the same in emerging and developed economies.

We also completed a number of additional robustness tests (results not reported here) and tested some alternative hypotheses. For example, to ensure that our results were not driven by differences in a few industries, we disaggregated the data industry by industry, for each of the 58 3-digit industries that have both Indian and U.S. firms and we reran our analysis. The results obtained indicated that the lack of difference in persistence for superior performers is not driven by a few industries but is valid for almost all industries, while the difference observed in poor performance persistence is not driven by a few industries, although in 53 percent of the cases there were no observed differences.

**Alternative governance mechanisms and persistence of poor performance**

Table 3 shows the results of the regression analysis comparing the persistence of affiliated and unaffiliated poor performers in India. Models 1 and 5 present the base model, showing the performance persistence of poor performers in India using NROA and FSR as measures of performance. In Models 1 and 5, the coefficient of lagged performance is positive and significant, indicating that overall there is significant persistence of poor performance in India. Models 2 and 6 show that the interaction term Unaffiliated Indian firm dummy $\times$ Lagged performance is negative and statistically significant for both the NROA and FSR measures of performance. This suggests that, on average, persistence of poorly performing unaffiliated Indian firms is less than Indian firms that are subsidiaries of MNCs or affiliated to business groups. For example, Model 2 of Table 3 shows that poorly performing Indian firms that are unaffiliated, i.e., are neither subsidiaries of multinational corporations nor members of a business group, have a persistence of 0.50 (i.e., 0.66 − 0.16), when NROA is used a measure of performance. In contrast, affiliated firms have a persistence of 0.66.

Models 3, 4, 7, and 8 test separately the effect of affiliation to BGs and MNCs. The separate
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Table 3. Regression results on the persistence of poor firm performance of Indian manufacturing firms

<table>
<thead>
<tr>
<th>Variables</th>
<th>NROA</th>
<th>FSR</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>#1</td>
<td>#2</td>
</tr>
<tr>
<td>Lagged performance</td>
<td>0.58**</td>
<td>0.66**</td>
</tr>
<tr>
<td></td>
<td>(25.9)</td>
<td>(22.6)</td>
</tr>
<tr>
<td>Unaffiliated Indian firm dummy × Lagged performance</td>
<td>-0.16**</td>
<td>0.11**</td>
</tr>
<tr>
<td></td>
<td>(-5.9)</td>
<td>(4.0)</td>
</tr>
<tr>
<td>Business group-affiliated Indian firm dummy × Lagged performance</td>
<td>0.11**</td>
<td>0.09**</td>
</tr>
<tr>
<td></td>
<td>(4.0)</td>
<td>(3.6)</td>
</tr>
<tr>
<td>N obs.</td>
<td>10,559</td>
<td>10,559</td>
</tr>
<tr>
<td>Adjusted R²</td>
<td>0.074**</td>
<td>0.078**</td>
</tr>
</tbody>
</table>

*All models estimated using fixed effects dynamic panel data analysis on the sample of poor performers Indian manufacturing firms during the period 1990 to 1999. Table contains non-standardized regression coefficients corrected for bias using Nickel’s formula. t-statistics in parentheses. Results are reported for NROA and FSR. *p < 0.05 **p < 0.01 ***p < 0.001 (all two tailed tests)

coefficients of BG affiliates and MNCs subsidiaries are positive and significant regardless of the measure of performance used, indicating that the difference between affiliated and unaffiliated firms is not driven by BG affiliates alone or MNCs subsidiaries alone.

Overall, our empirical results suggest that, while poor performance in India generally persists longer than in the United States, Indian firms that are affiliated to alternative governance structures actually take longer to recover from poor performance! These results do not support Hypothesis 3 and go against widely accepted views on the benefits of such alternative governance mechanisms in emerging economies.3

DISCUSSION

We discuss below separately our results on performance persistence in the United States vs. India (Hypotheses 1 and 2) and the results on the performance persistence of affiliated firms in an EE context (Hypothesis 3).

3 We also ran the same tests for the persistence of superior performers and found again that firms affiliated with business houses had no performance advantage; i.e., their superior performance did not persist longer than unaffiliated companies. However, we did find that firms with superior performance which are affiliated with MNCs indeed had an advantage with their performance persisting longer as predicted by extant theory.

On the persistence of performance in EE vs. DE

While overall persistence seemed greater for India than the United States, the results obtained when we distinguished between superior and poor performers were quite different. The results for superior performers showed no difference in performance persistence in the United States and India, supporting the revisionist arguments. On the other hand, poor performance persists to a greater extent in Indian firms, which is in line with the accepted view. It should be noted, however, that because these results are descriptive, we cannot determine the precise underlying theoretical mechanisms that lead to these results.

Since this is the first comparative study that allows testing whether differences in institutional environments lead to differences in performance persistence, our results cannot be directly compared in a systematic manner to past results. We could, however, use past research to compare our within country results. Table 4 summarizes all past research focusing on estimation of the performance persistence coefficient. Our results on the persistence of U.S. firms are in line with recent studies (e.g., Jacobson and Hansen, 2001) and those for India are somewhat similar to Khambhampati’s (1995) study, which examines industry-level rather than firm-level persistence. However, this study uses one of the largest samples ever in estimates of firm-level performance persistence with 4562 firms in the United States, compared to 1030 in Jacobsen and Hansen (2001), and 4325 in India compared

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<table>
<thead>
<tr>
<th>Economy</th>
<th>Country</th>
<th>Representative study</th>
<th>Sample period</th>
<th>Sector</th>
<th>No. of cross-sectional units</th>
<th>Observations per cross-sectional unit</th>
<th>Sample mean of persistence coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Developed economies</td>
<td>Canada</td>
<td>Khemani and Shapiro (1990)</td>
<td>1964–82</td>
<td>Manufacturing and mining</td>
<td>189 firms</td>
<td>19 years</td>
<td>0.445</td>
</tr>
<tr>
<td></td>
<td>Germany</td>
<td>Schwallach and Mahmood (1990)</td>
<td>1961–82</td>
<td>Manufacturing only</td>
<td>299 firms</td>
<td>22 years</td>
<td>0.485</td>
</tr>
<tr>
<td></td>
<td>France</td>
<td>Jenny and Weber (1990)</td>
<td>1965–82</td>
<td>Manufacturing only</td>
<td>450 firms</td>
<td>18 years</td>
<td>0.365</td>
</tr>
<tr>
<td></td>
<td>Japan</td>
<td>Odagiri and Yamawaki (1986)</td>
<td>1964–82</td>
<td>Manufacturing only</td>
<td>376 firms</td>
<td>19 years</td>
<td>0.465</td>
</tr>
<tr>
<td></td>
<td>U.K.</td>
<td>Geroski and Cubbins (1990)</td>
<td>1948–77</td>
<td>Manufacturing only</td>
<td>239 firms</td>
<td>30 years</td>
<td>0.482</td>
</tr>
<tr>
<td></td>
<td>U.S.</td>
<td>Mueller (1990)</td>
<td>1950–72</td>
<td>Manufacturing only</td>
<td>551 firms</td>
<td>23 years</td>
<td>0.183</td>
</tr>
<tr>
<td></td>
<td>Waring (1996)</td>
<td></td>
<td>1970–89</td>
<td>All sectors</td>
<td>12,986 firms</td>
<td>Max. of 20 years</td>
<td>0.560</td>
</tr>
<tr>
<td>Emerging economies</td>
<td>Brazil</td>
<td>Glen, Lee and Singh (2001)</td>
<td>1988–92</td>
<td>All sectors</td>
<td>1039 firms</td>
<td>5 years</td>
<td>0.370</td>
</tr>
<tr>
<td></td>
<td>India</td>
<td>Khambhampati (1995)</td>
<td>1970–85</td>
<td>Manufacturing only</td>
<td>42 industries</td>
<td>16 years</td>
<td>0.484</td>
</tr>
<tr>
<td></td>
<td>Malaysia</td>
<td>Glen, Lee, and Singh (2001)</td>
<td>1983–94</td>
<td>Manufacturing only</td>
<td>62 firms</td>
<td>12 years</td>
<td>0.349</td>
</tr>
<tr>
<td></td>
<td>South Korea</td>
<td>Glen, Lee, and Singh (2001)</td>
<td>1980–94</td>
<td>Manufacturing only</td>
<td>82 firms</td>
<td>15 years</td>
<td>0.323</td>
</tr>
</tbody>
</table>

* Estimate based on pooled data for 128 industries. The mean persistence coefficient has been estimated by the authors based on the data displayed in Table 3 of Waring (1996). Also, unlike other studies that include only survivors with full time series, Waring includes survivors, new entrants, exits, and merged firms as well.
to 82 in South Korea in Glen et al. (2001), which has the largest sample size for an emerging economy. Using this sample allows us for the first time to estimate the persistence of poor performance. By contrast, Mueller (1977), one of the few studies examining poor performance persistence, had a sample of large surviving listed firms, which are typically not representative of the greater population and comprised of the largest and most elite firms in the economy.

Since the overall difference in persistence was driven by poor performers, this study shows the importance of distinguishing between the persistence of poor performers and superior performers and the need for more representative samples to allow for the observation of poor performers’ behaviors. These results also indicate that the drivers of poor and superior performance persistence are likely to be different and tend to question the assumption of institutional homogeneity. Our findings thus also lend support to the general argument that, in addition to firm and industry factors, institutional contexts are also important to performance as shown in recent research along the same lines (Chesbrough, 1999; Fauver et al., 2003; Wan and Hoskisson, 2003).

Alternative governance mechanisms and persistence of poor performance

We also find that poor performance persists longer for firms affiliated with business groups and firms that are subsidiaries of foreign MNCs. This result is at odds with theories on the ability of intermediate governance structures to fill institutional voids and potentially benefit from superior relationships with governments and indicates that these structures do not help improve their affiliates’ poor performance.

Our results here are in line with past large-scale empirical results on business groups. Overall, this research does not show evidence of superior performance by business group affiliates but rather tends to indicate that such affiliates are disadvantaged vis-à-vis independent firms, whether in an emerging or a developed economy. The original research on business group affiliates focused on Japan and hypothesized similar benefits to affiliation with keiretsus in Japan as those hypothesized for EE. However, the numerous empirical studies done comparing unaffiliated firms to firms that are part of bank-centered keiretsus show ‘no evidence of superior performance … at anytime during the postwar period’ in Japan (Weinstein and Yafeh, 1998: 664). Most of the research on Japan shows a negative relationship between group affiliation and performance for members of both bank-centered keiretsus and vertical keiretsus (e.g., Caves and Uekusa, 1976; Nakatani, 1984; Weinstein and Yafeh, 1995, 1998), although lead firms in such keiretsus may not suffer the same fate (e.g., Jameson, Sullivan, and Constand, 2000). Similarly, Khanna and Palepu (2000a) find that a dummy for business group affiliation in India in 1993 is negatively correlated with ROA. Ferris, Kim, and Kitsabunnarat (2003) also report that chaebol-affiliated firms suffer a value loss relative to non-affiliated firms, even after controlling for the relatedness of diversification within the chaebol. The only evidence of positive business group effects is either anecdotal, relates only to a handful of very large groups, or comes from studies using unrepresentative samples of typically elite firms in an economy. 4

So why do independent firms, i.e., governed by the market, recover quicker from poor performance than affiliated firms? We advance in the following three potential explanations for this puzzle.

The first explanation is that although alternative governance structures do indeed fill institutional voids present in some country environments, the institutional conditions that lead to their rise may have already disappeared or are disappearing, albeit at different rates in different national institutional environments. This would be the case as markets around the globe move to becoming more efficient, making business groups less efficient over time (Khanna and Palepu, 2000b).

The second explanation is that Indian BG managers as well as MNC managers, albeit rational decision-makers, may be pursuing different goals than expected. MNC managers may be sacrificing shorter-term profitability for other goals such as building share, local identity, or political favors (Prahalad and Hamel, 1990). Similarly, BG managers may want to avoid the stigma associated

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4 When researchers use equity-based measures, the results are usually neutral or sometimes positive. However, as these authors have noted, equity-based measures in emerging economies are highly problematic because they assume efficient capital markets (e.g., Khanna and Palepu, 2000a: 872; Chang and Choi, 1988: 151).
with bankruptcy and exit (Dutta, 1997) and its consequences and thus will maintain their poorly performing affiliates longer than ‘economically rational.’

The third explanation is in line with work suggesting that the benefits of membership differ for different member firms (Kim, Hoskisson, and Wan, 2004). For example, Jameson et al. (2000) suggest that the benefits of group membership accrue to the central or most powerful firm(s) within the group to the detriment of others. The literature on tunneling also suggests that the family controlling a business group may expropriate minority shareholders’ rights by transferring resources from firms where they have low cash flow rights to firms where they have high cash flow rights (Bertrand, Mehta, and Mullainathan, 2002; Johnson et al., 2000).

This study has two limitations. First, generalizability is hindered as the study is limited to data from one developed economy (United States) and one emerging economy (India), although they are seemingly representative of their respective categories. Second, while we verified that the institutional environments of India and the United States differ along the lines described, we do not measure their impact directly but rather infer their influence by using statistical controls to rule out alternative explanations based on industry structure or firm-specific capabilities.

CONCLUSION

This study represents the first step toward understanding the impact of institutional differences on performance persistence. The data suggest that the persistence of poor performance is greater in EE but not the persistence of superior performance, supporting the claim that drivers of poor performance differ from drivers of superior performance. These findings may have important implications for business since they dispel the myth that superior performance may be easier to sustain in an EE. The forces eroding firm performance and driving it toward the mean seem just as strong in an EE as in a DE. On the other hand, our findings indicate the dangers of slipping into poor performance in an EE since it seems harder to recover from it than in a DE.

We also find that poor performance persists longer for firms affiliated with business groups and firms that are subsidiaries of foreign MNCs. This result, along with previous empirical research on keiretsus, chaebols, and other business groupings, indicate that market governance is likely to be more efficient than alternative governance mechanisms, even in emerging economies, a result that is at odds with recent findings that business group may have a positive effect (e.g., Khanna and Palepu, 1997). Three new explanations were offered to explain these results. The theory behind positive effects of business groups is accurate but the institutional conditions that are predicted to lead to their rise and superior efficiency have waned or are generally waning. Alternatively, the theory does not hold with business group managers and MNC managers in emerging economies sacrificing short-term profitability in their desire to avoid the social stigma associated with bankruptcy or to build the business over the long term. Finally, current theory may be true with alternative governance structures able to enhance the performance of their affiliates in EE, but such potential is undermined by agency problems. Thus, central or powerful firms in the business group, or key shareholders, may be using their influence to tunnel away affiliates’ resources, weakening them in the process. Further research is needed to disentangle these alternative explanations.

Overall, these findings indicate that improved governance of business groups may be needed to ensure that management is indeed doing what is best for shareholders and that minority shareholders’ rights are protected.

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REFERENCES

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