



VARIATIONS IN OWNERSHIP BEHAVIOR AND PROPENSITY TO DIVERSIFY: A STUDY OF THE INDIAN CORPORATE CONTEXT

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The relationship between ownership and diversification has been the focus of renewed debate between financial economists and strategic management scholars. While financial economists hold that manager-controlled firms tend to reflect higher levels of diversification, strategy researchers argue that ownership and diversification are not systematically related. In throwing light on this debate, this study uses a fine-grained definition of ownership groups to explore how the different objectives and monitoring predispositions of distinct ownership groups might influence diversification strategy. The empirical examination is set in India to offer a striking contrast from the predominantly U.S.-based studies that have shaped the ongoing debate. Findings show that diverse ownership groups adopt different postures in monitoring and/or influencing organizational diversification. While some ownership groups are closely associated with focused strategies, and some encourage diversification, others are quite indifferent. These results suggest that the context-specific variation among ownership groups is germane to our understanding of diversification strategy. Copyright © 2002 John Wiley & Sons, Ltd.

Corporate diversification is arguably the most widely researched area in strategic management (Chandler, 1962; Rumelt, Schendel, and Teece, 1994). This stream of inquiry has strong multidisciplinary roots, attracting the research interests of scholars from fields such as accounting (Aitken, Hooper, and Pickering, 1997; Amit, Livnat, and Zarowin, 1991), economics (Montgomery and Wernerfelt, 1988), finance (Amihud and Lev, 1981; Denis, Denis, and Sarin, 1997), and management (Datta, Rajagopalan, and Rasheed, 1991; Hoskisson and Hitt, 1990; Khanna and Palepu, 2000a, 2000b; Montgomery, 1994; Palich, Cardinal, and Miller, 2000; Ramanujam and Varadarajan, 1989). However, despite the long research

tradition, a comprehensive understanding of diversification phenomena remains elusive. The recent debate surrounding the relationship between organizational ownership and diversification posture is emblematic of the fluidity of this stream of research.

Building on the tenets of agency theory (Fama and Jensen, 1983; Jensen and Meckling, 1976), financial economists (Amihud and Lev, 1981; Denis *et al.*, 1997) have argued that managers (agents) will act to protect their own interests by using organizational diversification to reduce variability in their earnings—actions that often hurt shareholder (principals) interests. Blending strands of literature from perspectives within the realm of management theory such as stewardship (Davis, Schoorman, and Donaldson, 1997; Donaldson and Davis, 1991), entrepreneurship (Cooper, Woo, and Dunkelberg, 1988; Gartner, 1990) and top management teams (Dalton and Kesner, 1985), strategic management researchers (see Lane, Cannella, and

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Lubatkin, 1998, 1999, for an exhaustive discussion of the competing positions) raise important questions about the validity of some of the basic assumptions underlying the agency theory view. They argue that *both* managers and shareholders are concerned about unsystematic risk, and that managers are good stewards who align themselves closely with organizational interests. Hence, they are unlikely to undertake actions that protect their own interests while damaging those of the owners. Consequently, they contend that ownership structure, a primary determinant of corporate diversification strategy under the agency theory perspective, is likely to have little or no bearing on the scope of corporate strategies that a firm's managers choose to pursue. Thus, while one group sees a direct link between diversification strategy and ownership the other does not.

It is apparent that the two streams of reasoning are colored by the paradigmatic underpinnings of finance and strategy—fields that have at times shown a tendency to diverge in fundamental ways. However, these two streams of research share some important common features. Both assume that *all* ownership groups reflect the very same motivation, maximizing shareholder value. Each believes that ownership behaviors are context free. These assumptions warrant closer scrutiny. Unraveling them could yield significant new insights that may help reconcile the two streams.

Taking a step in that direction, this study explores links between the motivations of the various ownership groups proxied by their shareholdings and the nature of the diversification strategies pursued by the organizations in India. The paper first provides a brief synopsis of current understanding about the relationship between ownership and diversification in building a case for including the critical components of country context, and variations in ownership type, to sharpen the insights that have been drawn thus far.

LITERATURE AND HYPOTHESES

Patterns of ownership and propensity to diversify: What do we know?

A substantial body of work examining managerial behavior with respect to corporate diversification has been based on agency theory (Amihud and Lev, 1981; Datta *et al.*, 1991; Hoskisson and Hitt, 1990; Montgomery, 1994; Palich *et al.*, 2000;

Ramanujam and Varadarajan, 1989). It is believed that managerial behavior is rooted in self-interest and managerial opportunism, and hence managers tend to reap private gains first even if such gains come at the cost of organizational losses. Building on this core assumption, financial economists have argued that management-controlled firms will display a disproportionately greater propensity to diversify (Amihud and Lev, 1981; Denis *et al.*, 1997; Montgomery, 1994). This conclusion is predicated on two interrelated assumptions.

First, it is assumed that managers derive most of their wealth and earnings from a single source: the organization that employs them. Hence, they are likely to engage in diversification moves that reduce unsystematic risk primarily because such moves help limit variability in earnings and consequently, their employment risk. These diversification moves, while detrimental to shareholder interests (Berger and Ofek, 1995; Comment and Jarrell, 1995; Lang and Stulz, 1994), may funnel private gains to the managers. This is a manifestation of the belief that organizations are inefficient at allocating risk capital across diversified businesses while shareholders are far more efficient at diversifying their individual portfolios. Thus, any move by organizations to diversify risk is likely to destroy shareholder value (Berger and Ofek, 1995; Comment and Jarrell, 1995).

Second, several studies have shown that there is a significant relationship between diversification and executive compensation (Hoskisson and Turk, 1990; Jensen and Murphy, 1990) because diversification makes a manager indispensable to the organization (Barkema and Pennings, 1998; Rose and Shepard, 1997; Shleifer and Vishny, 1986) and enhances the power and prestige of managers (Jensen, 1986; Stulz, 1990). Thus, this school of thought concludes that there is considerable motivation for managers to undertake diversification strategies that may not be beneficial to the organization as a whole.

The landmark study by Amihud and Lev (1981), an often-cited example of favorable evidence by financial economists, reported that organizations where large block shareholders were absent tended to be more involved in unrelated acquisitions and had higher levels of diversification than firms where large block shareholders were present. More recently, May (1995) reported findings that showed a negative relationship between a proxy for a manager's investment in a firm and the covariability of

target and bidder returns, implying that managers with large amounts of investments in their firms tended to reduce their employment and personal investment risk through diversifying acquisitions. Along similar lines Denis *et al.* (1997) reported that the level of diversification was negatively related to managerial equity ownership and that diversification level decreased when external corporate control threats were present.

Recently, strategic management researchers Lane *et al.* (1998) replicated the Amihud and Lev (1981) study. They reported inconsistencies in findings traceable in part to fundamental theoretical and methodological differences. They argued that the agency conflict between owners and managers does not apply to corporate strategy decisions because managers invariably have better knowledge on these issues than owners. Hence owners would be well served to adopt the strategic directions proposed by management. Further, they also contended that neither do owner-controlled firms always maximize wealth, nor do they closely monitor the actions of managers. Thus the 'superior monitoring' argument offered by agency theorists is debatable. Building on these contentions, their reanalysis of the Amihud and Lev (1981) data indicated that ownership concentration was largely unrelated to the level of diversification pursued by the firm. Their results showed that management-controlled firms engaged more in 'related constrained' diversification—a type that represents the optimum combination of shareholder return and risk. Further, only 12.5 percent of their sample of management-controlled firms engaged in unrelated diversification. This, the authors suggested, is evidence that the agency problems discussed by the financial economists are not serious.

Despite the obvious divergence in conclusions drawn by the two groups of studies, they share some common assumptions that merit further research attention, namely, (i) all the studies rely on a categorical operationalization of the ownership variable and only concentrate on the owner that has the dominant share, implicitly assuming that all ownership groups behave the same way and have similar expectations in terms of risk and return, and (ii) since almost all the studies have looked at U.S. corporations, it is implicitly assumed that owner behavior is context free (i.e., does not vary across countries). Recent research has challenged these assumptions.

First, many studies of late have suggested that different ownership groups tend to have different objectives and expectations and behave differently (e.g., David, Kochhar, and Levitas, 1998). Hence, the assumption that *all* owners are driven by the same motivations might be untenable. Second, the implied assumption of context-independent behavior might also be debatable given recent evidence that corporate governance practices could have a significant country-specific component (see Aoki, 2000; Charkham, 1995; Gedajlovic and Shapiro, 1998; Whitley, 1999). In the following sections, we present a case for decomposing 'ownership' and for relating the process to specific aspects of country context.

Why do we need to differentiate across different ownership groups?

Not all owners are alike. They can be distinctly different from one another based on the specific expectations that they bring and the extent of active monitoring that they perform (Monks and Minow, 1995; O'Barr and Conley, 1992). Thus, while some owners might draw upon their powers only when they have sizable equity holdings, others might not be as patient and engage in active monitoring at much lower levels of ownership (Brickley, Lease, and Smith, 1988; David *et al.*, 1998).

Brickley *et al.* (1988) provide a three-part classification of owners based on the nature of the relationship that they have with the organizations they invest in. The *pressure-sensitive* owners are those that are susceptible to the influence exercised by the firm's managers. *Pressure-resistant* owners are characterized as pure investors who have clear profit and growth objectives that cannot be influenced by an organization's managers. The *pressure-indeterminate* group does not have a clearly defined relationship with the firm's managers, playing a passive role in some situations and a marginally active role in others.

Based on the above distinctions, it may be argued that the 30 percent cut-off used by Amihud and Lev (1981) and Lane *et al.* (1998) to define strong owner-controlled firms might not be an optimal characterization of the owners' monitoring disposition. For example, financial institutions and mutual funds that essentially invest other people's money have a fiduciary responsibility to monitor more actively their investments than do individual investors (Monks and Minow,

1995) and hence may assume an activist posture even at lower levels of ownership. Further, the nature of the relationship between the investor group and the firm's managers is also likely to affect the quality of the monitoring that they perform. While investors such as mutual funds and foundations can intervene in management decisions 'without the fear of retribution' (David *et al.*, 1998), banks cannot easily follow the same course since much of their income is tied to the interest they derive from lending to the firm. Thus, there are substantial differences in monitoring behavior between 'pressure-sensitive' and 'pressure-resistant' investors (Brickley *et al.*, 1988). In essence, *who owns* might be just as important as *how much* they own. Therefore, treating all owners as equal might mask the subtleties in the relationship between the nature of ownership and the diversification posture pursued by the firm.

What role does country context play?

The function of specific ownership groups can vary across country contexts because of the uniquely different corporate governance mechanisms that may be locally prevalent. Porter (1990: 110) succinctly summarizes this stream of arguments and observes that

Company goals are most strongly determined by ownership structure, the motivation of owners and holders of debt, the nature of the corporate governance, and the incentive process that shapes the motivation of senior managers. The goals of publicly held corporations reflect the characteristics of the nation's capital markets.

The role of shareholder groups varies across countries. In Switzerland and Germany, most institutional investors hold their investments for long periods of time and firms are rarely under pressure to post quick profits, unlike their counterparts in the United States. The same could be said of Japan as well. In Korea, since the capital markets are weak, the government plays a central role in allocating capital through a system of legislative controls and incentives (Porter, 1990). The patterns of ownership concentration, widely believed to be a proxy for the propensity to monitor organizational managers actively, also vary widely across countries (La Porta, Lopez-de-Silanes, and Shleifer, 1999). For example, Gedajlovic and Shapiro (1998) report that dispersion

of ownership is quite low in countries such as Germany and Canada but quite significant in the United Kingdom and the United States. Thus, the intensity and type of monitoring that investors perform is likely to vary widely across settings. Hence, it can be argued that the propensity of managers in management-controlled firms to engage in diversification will also vary along with differences in monitoring disposition and ability.

Having established a possible case for differentiating across both ownership types and country contexts, the following sections provide a theoretical discussion leading to a set of testable hypotheses relating ownership and diversification. The discussion is structured around the behaviors of distinct ownership groups: (a) government agencies, (b) non-governmental financial institutions, (c) mutual funds, (d) banks, and (e) foreign investors.

Ownership groups and organizational propensity to diversify

Governmental agencies

Questions regarding the role of government ownership in monitoring and influencing the behavior of managers overseeing private firms have received scant attention in the strategy literature. This neglect may be due to the fact that studies in this field are predominantly U.S.-based, a context with very limited government ownership in traditional industrial sectors. By contrast, in countries in South and South-East Asia such as India and Singapore, and much of Eastern Europe, the government exercises wide-ranging control over the industrial sector through a mix of legislation and ownership of banks and financial institutions that invest in commercial organizations (Newbery, 1992; Whitley, 1990). This class of investors can be categorized as 'pressure-indeterminate' investors (Brickley *et al.*, 1988) because the nature of their relationship with firm management belies easy characterization. It is generally unclear whether they will toe the line recommended by managers or whether they will resist such pressure.

A significant stream of research on state-owned organizations has demonstrated that the government is inefficient in monitoring performance outcomes associated with its investments (Aggarwal and Agmon, 1990; Mehta and Trivedi, 1996; Newbery, 1992). Given the abstract, arm's-length nature

of government ownership, state-owned institutions seldom provide the incentives for closely tracking the performance of their investments (Andrews and Dowling, 1998). The principals, actually the electorate in the case of government ownership, are diffused and hence unlikely to act in a concerted manner to maximize the profitability of their investments. Further, since any performance improvements following active monitoring by a few principals is likely to be shared by the entire public, there is very little incentive for the government's monitors to do an effective job. Since governments, especially in developing economies, espouse significant social welfare objectives, they are less profit driven and hence less vigilant in their monitoring role. Studies by Aharoni, (1986), Stano (1975), Vickers and Yarrow (1988), among others, have validated these conclusions. More recently, Andrews and Dowling (1998) provided empirical evidence in support of this position as well. In an examination of privatized firms across 15 countries they found that in firms where the government held significant stock even after the privatization process, post-privatization performance gains did not materialize. This reinforces our contention that the government as an investor is an ineffective monitor at best.

Drawing on these arguments, we would not expect to see any significant relationship between the nature of diversification strategy (unrelated or related) pursued by the firm and the level of government ownership in the firm. Summarizing this line of reasoning, it can be hypothesized that:

Hypothesis 1: The proportion of organizational shareholding controlled by government agencies will not be related to diversification strategy.

Institutional holdings and mutual funds

Over the last decade, stock exchanges and financial markets in many developing countries have undergone large-scale modernization and standardization of procedures (Ramesh and Gupta, 1995; Rhee, 1992). Many of the sophisticated financial instruments, accounting procedures, and reporting requirements developed across these countries, for example, have been modeled on British and U.S. systems (Emery, 1997; Rhee, 1992). The rapid growth in the financial sector accompanying these changes suggests a sophisticated and knowledgeable population of investors. Therefore it can be argued that differences in country context are not

likely to alter the monitoring behaviors of for-profit institutional shareholders.¹ Irrespective of nationality and cultural roots, these block shareholders are expected to exercise influence over the nature of diversification strategy that the firm's managers may choose to adopt. These institutional shareholders will be vigilant in guarding against opportunistic managerial behavior that could result in wealth-destroying activities. Although there may be more than one institutional investor, and their individual holdings might be small, as a group they are known to gain power through coordinated action (David *et al.*, 1998). Hence, it has been suggested that their behavioral dispositions may be more similar than dissimilar as a group (Useem, 1996; Wahal, 1996).

Drawing on the classification proposed by Brickley *et al.* (1988), institutional investors can be termed 'pressure resistant' since they owe no allegiance to the firms in which they invest. Since they do not have any business relationships with the firms that they invest in, they are more likely to exercise their fiduciary responsibility and actively counsel organizational management against wealth-destroying moves. Consequently, in India, we expect to find a negative relationship between for-profit institutional shareholding and unrelated diversification.

Hypothesis 2: The proportion of ownership represented by for-profit financial institutions will be negatively associated with unrelated diversification.

The above hypothesis does not postulate any relationship between 'related' diversification and institutional ownership. Although many of the previous studies (e.g., Denis *et al.*, 1997) do not distinguish between related and unrelated diversification, we choose to make such a distinction. While there is substantial theory linking unrelated diversification to ownership concentration,

¹ In the Indian context, the reporting requirements are such that the firms report shareholding proportions in mutually exclusive categories that distinguish financial institutions (for-profit), from banks and banking companies. While the former group typically has no banking functions, the latter group does. Further, the 'for-profit' institutions are different from developmental finance institutions set up by the government to participate in equity offerings of local firms as a means of implementing governmental initiatives. Such agencies typically do not have clear economic profit motives. The 'for-profit' financial institutions category does not include insurance companies or other types of investors. Mutual fund investors are also identified separately.

there is no theoretical precedent to build a similar hypothesis around related diversification. Further, it is not clear whether institutional investors will actively counsel organizational managers to pursue related diversification. Their role seems to be more a monitoring rather than an advisory one.

Mutual funds are quite similar in nature to for-profit financial institutions. They can be classified as 'pressure resistant' (Brickley *et al.*, 1988) since they normally do not have any business relationship with the firms they invest in, especially in the Indian context.² Hence they are driven by strong wealth maximization motives since potential investors who buy their products closely watch fund performance. The recent influx of multinational mutual fund companies has accentuated their role in investing in the equity markets. Organizations such as Morgan Stanley, Jardine Fleming, Templeton, and Merrill Lynch, among others, are active in India. Given their performance focus, they can be expected to bring with them an aggressive monitoring approach that limits managerial excesses and exploitation of self-interests to the detriment of shareholders. Hence, it can be argued that the presence of mutual fund investors will dampen the propensity of a firm's managers to engage in unrelated diversification attempts.

Hypothesis 3: The proportion of ownership controlled by mutual funds will be negatively associated with unrelated diversification.

Foreign investors

Foreign investors, primarily corporate bodies,³ control significant proportions of shares in Indian

² We are thankful to an anonymous reviewer who raised an important question about the extent to which fund managers may be pressure resistant if they are managing a corporation's pension funds as opposed to funds targeted at the general investing public. We acknowledge that fund managers who manage pension funds for specific corporations may be less 'pressure resistant' than managers who manage nonaffiliated funds. However, private management of pension funds in India is still an abstract concept that has not been implemented. A substantial majority of pension funds are administered through the Employee Provident Fund Scheme, a federally operated program.

³ This group of investors does not include individual foreign nationals since they are not permitted to directly buy shares in Indian companies. Their involvement is limited to overseas depository receipts (e.g., ADRs, GDRs) which did not form part of the study. For the most part, this group is comprised of foreign corporations that have joint-venture or other collaboration agreements with Indian companies.

companies. These firms are primarily joint venture partners or technology collaborators from developed countries in Europe and North America. Although inflows of foreign capital were strictly controlled by a license regime linked to economic policy, many of the world's largest multinational companies had established collaborative operations in the country with local partners for a long period of time. In the late 1980s and early 1990s the government implemented its New Economic Policy, encouraging liberalization of foreign investment in several sectors of the economy (Ahluwalia, 1994; UNCTAD, 1993). One of the significant changes was the near total revamping of constraints relating to the extent of equity ownership that foreign parents were permitted to hold (UNCTAD, 1993; World Bank, 1994). Barring sectors such as defense, telecommunications, and airline transportation, foreign firms were allowed to hold majority ownership positions in most other industries. Since these reform efforts were instituted, foreign bodies have begun to hold controlling equity positions in several Indian companies.

Foreign investors holding equity in Indian companies are largely 'pressure resistant' because they have a fairly unique relationship with the firm's managers. Since most of the investment flows into organizations where these investors provide technology and/or product expertise, there is a significant knowledge component accompanying the investment (see Khanna and Palepu, 2000a). Hence, unlike banks or insurance companies that have a fear of retribution should they spurn the initiatives of a firm's managers, foreign investors have a firmer control with the Indian firm. First, they are usually not dependent on the Indian firm for profits or revenues since most often these investments represent a fairly small proportion of aggregate investments held by the foreign entity. Further, the knowledge transfer aspect infuses a sense of mutual forbearance between a firm's managers and the foreign investors. Hence foreign investors can be expected to be unencumbered by their business association and consequently play an active monitoring role. Thus, we hypothesize that:

Hypothesis 4: The proportion of ownership controlled by foreign investors will be negatively associated with unrelated diversification.

Banks and banking companies

Banks and banking companies are classified as 'pressure-sensitive' investors (Brickley *et al.*, 1988). Often they are involved in important business relationships with the companies in which they invest. They are in a sense dependent on these firms for a large part of their income because they either derive interest income from the loans they offer these corporations or obtain fee income by meeting the financial needs of the firms in which they invest. This dependence places them in a delicate position when it comes to active monitoring and control of firm management. Therefore despite their equity position they are likely to be reluctant in counseling management against specific corporate strategy moves that could prove detrimental to shareholder's interests.

This situation is exacerbated in the Indian context especially because most Indian banks were at one point government owned as a result of a massive nationalization several decades ago. The government retains equity in many of these banks although several have been partially privatized. Thus, banks are faced with a unique context where they still reflect some of the vestiges of state ownership but at the same time have to face competition from private banking companies and foreign banks that have become more active since the liberalization of the economy. Thus, in targeting the lucrative fee and interest accounts, they naturally gravitate towards the large conglomerates in the country that have historically proven to be the engines of revenue and growth. Needless to say, these business groups are quite profitable and powerful (see Khanna and Palepu, 1997, 2000a, for a description of the functioning of Indian business groups) and hence banks and banking companies have a significant vested interest in supporting the management of these firms in their corporate strategy initiatives. Since the average Indian company is much more widely diversified, often in unrelated domains (Khanna and Palepu, 1997, 2000a, 2000b) than its counterparts in the United States, capital for diversification often flows from banks and banking company investors under directives from the government. Hence, these institutions aid the firm's management in pursuing unrelated diversification.

Hypothesis 5: The proportion of ownership controlled by banks and insurance companies

will be positively associated with unrelated diversification.

Having presented the theoretical rationale and hypotheses relating to the impact of different ownership groups on a firms' propensity to diversify, the following sections discuss the methodological approach that was used for hypothesis testing.

METHODOLOGY

Setting and sample

India was chosen as the setting for this study for a variety of reasons. First, India's economy has been classified as emergent or developing, thus placing it in a category of countries that are in contrast with contexts such as the United States where most of the prior research has been focused. Second, the corporate governance systems in Indian firms often include the government as a shareholder in private industry, mutual funds and financial institutions that function much along the same lines as their counterparts in developed economies such as the United States, and investors such as banks and banking companies which owe their allegiance both to the government and the client firms with whom they transact business. These are unique governance features that are uncommon among U.S. firms. Thus, India offers the opportunity to examine the influence of these diverse ownership influences on managerial propensity to diversify.

Firm-level data on diversification were obtained from the annual database published by the Centre for Monitoring Indian Economy (CMIE). This database is built on raw data obtained from reports that all companies file with the Registrar of Companies, a federal agency. Ownership structure data were obtained from reports produced by Credit Rating and Information Services of India Ltd (CRISIL). This agency has been organized by leading Indian financial institutions, the Asian Development Bank, and a host of nationalized and foreign banks and credit rating services including Standard & Poor's and Bloomberg.

The original sample was made up of the top 150 manufacturing firms in the country during the 1993–94 period. This ranking, similar to the *Fortune* 500 in the United States, is published annually by *Business Today*, a leading business magazine in India. The firms in the sample represented industries that corresponded to four 2-digit

SIC categories, namely textile and mill products, chemicals and allied products, food and kindred products, and industrial machinery and equipment. Data attrition limited the usable sample to 88 firms.

Variables

Measuring diversification

Diversification was measured using both the Herfindahl index approach (Acar and Sankaran, 1999) and the entropy approach (Hall and St. John, 1994; Hoskisson *et al.*, 1993; Jacquemin and Berry, 1979; Palepu, 1985). Product-wise sales data were obtained from CMIE. This formed the basis for computing a related (DR-H), and an unrelated (DU-H) Herfindahl index as well as a related (DR-E) and an unrelated (DU-E) entropy index. The corresponding measures of total diversification (DT-H and DT-E) were also computed (see Hall and St. John, 1994, for computational details relating to the entropy measures and Acar and Sankaran, 1999, for a discussion on computing the Herfindahl measures). The correlation analysis showed that the entropy measures and Herfindahl measures were quite highly correlated (≥ 0.98). Therefore to avoid needless duplication we used only the entropy measures in further analysis.⁴

Ownership measures

Ownership was measured in terms of the proportion (%) of equity held by each specific group identified earlier. Thus, we derived five ownership measures as follows: government shareholding (GOVT%), financial institutions (FINST%), banks and banking companies (BNKING%), foreign corporate (FORGN%), and mutual funds (MUTUAL%). All ownership variables were measured as of 1993, preceding the measurement of diversification by a year. This was done to parallel the design used by Denis *et al.* (1997) so as to promote comparability of findings across studies.⁵

⁴ Results for the analyses using Herfindahl measures may be obtained from the first author.

⁵ The analysis was repeated using 1993 and 1994 as the base years for both diversification and ownership. There were no substantive changes in the patterns of the results. This must be expected since in the Indian context both diversification and ownership structure do not change significantly in such short spans of time. Further, the year-to-year correlations between ownership variables in 1993 and 1994 were consistently high and so too were the correlations between the diversification measures across the two time periods.

Control measures

Firm size, industry membership, organizational performance, and financial leverage were used as control variables. Firm size is relevant when considering diversification since companies pursue scale and scope economies in stages (Chandler, 1962) and, furthermore, a company must reach a certain size threshold to establish its headquarters, a prerequisite for multibusiness firms where the headquarters needs to manage its multiple businesses effectively (Goold, Campbell, and Alexander, 1994). Industry membership is another variable that is likely to play a role in determining the path of diversification that a firm chooses. Aspects such as product differentiation, industry maturity, and potential for synergies across supporting industries are all factors that could be relevant (Porter, 1980). Hence, explicitly controlling for industry membership was considered essential. Much of the literature on diversification strategy suggests that important performance differences emerge both across types of diversification strategies (e.g., related vs. unrelated) as well as within each type (Datta *et al.*, 1991; Hoskisson and Hitt, 1990; Ramanujam and Varadarajan, 1989). Hence, it was critical to control for the impact of firm performance on diversification strategy. Given the theoretical linkage between leverage and diversification as discussed in the literature (Kochhar, 1996; Kochhar and Hitt, 1998) and the strong relationships between India's business groups and the banking institutions, it was necessary to control for leverage to ensure that it was indeed ownership that was driving diversification moves and not debt levels.⁶

Firm size [SIZE] was measured as a logarithmic function of the total assets of the firm in 1994, the base year for computing the diversification measures that were used. Industry membership was controlled through the use of dummies determined on the basis of the primary product domain of the company (see Khanna and Palepu, 2000a, for a similar approach). The sample encompassed four broad primary product domains: food and kindred products, chemicals and allied products, textile and mill products, and industrial machinery and equipment. Financial leverage [LEVER] was measured

⁶ We are thankful to an anonymous SMJ reviewer who recommended the additional controls for firm performance and financial leverage. Including these controls helped reduce the potential for alternative interpretations of the findings.

as a 3-year (1991–93) average of the firm's debt equity ratio. Organizational performance [PERF] was measured as a 3-year average (1991–93) of return on assets. Table 1 provides the univariate statistics and the correlation matrix relating to the study variables.

Analysis

Multiple linear regressions (OLS) were used to analyze the data. We constructed three separate models, using the level of related, unrelated, and total diversification as the dependent variables. The control variables were entered first into all the models that were evaluated. Additional diagnostic tests were also performed to rule out multicollinearity in the data. The Variance Inflation Factor (VIF) values for the variables examined ranged between 1.20 and 2.42. The corresponding tolerance statistics were all over 0.50. Both diagnostics thus indicated that multicollinearity was not a significant issue.

The regression results indicated that (a) ownership variables explained unrelated diversification better than they did related diversification or total diversification, (b) the proportion of ownership attributable to pressure-sensitive investor groups like banks and banking companies was positively associated with unrelated diversification as hypothesized, (c) pressure-resistant investor groups such as mutual funds and financial institutions negatively influenced the level of unrelated diversification pursued by the firm's managers, as hypothesized, (d) the pressure-indeterminate group of investors represented here by governmental agencies did not have any noticeable association with any of the measures of diversification, and (e) the proportion of foreign ownership was not significantly related to unrelated diversification. None of the control variables were significantly related to the firm's diversification strategies. Table 2 provides the results of the regression analyses.

DISCUSSION AND IMPLICATIONS

The results of our empirical examination provide finer insights into the debate concerning the role of ownership in driving diversification choices. While the behavior of some groups such as the class of 'pressure-resistant' investors can be explained by the tenets of agency theory, it

appears that the theory fails to explain adequately the role of other groups such as the 'pressure-indeterminate' investors like governmental agencies and 'pressure-sensitive' investors such as banks and banking companies. It is also important to note that the ownership variables explained unrelated diversification better than either related or total diversification. What do these findings imply?

Variations in owner group behavior

It is clear from the findings of our study that there are indeed distinct differences between ownership groups, thus raising questions about the assumption of homogeneity that has characterized prior examinations. Aggregating owners into a smaller subset of categories such as 'strong owner controlled' and 'weak owner controlled' may mask these critical differences. Therefore, it is plausible that agency theory has the potential to explain the monitoring roles and predisposition of select owner groups but not the motivations and objectives of different owners. The interrelated nature of the 'investor' and 'business' relationships, especially in contexts like India, seem to run counter to agency theory interpretations. Perhaps the reality may lie somewhere between agency theory predictions and the alternative views offered by some strategic management theorists (e.g., Lane *et al.*, 1998, 1999). The pressure-indeterminate group is a special case in point that underscores the need to include country context in future examinations in order to enhance our understanding of the manner in which the investor relationship plays out in non-U.S. contexts.

The behavior of for-profit institutional investors and mutual funds companies seems to fall in line with agency theory expectations. Our findings show that the proportion of holdings of both these groups is negatively associated with unrelated diversification. This implies that, even in countries such as India that are just emerging into a free-market environment, there appears to be an acute sensitivity on the part of these pressure-resistant investor groups that active monitoring is a precursor to successful wealth creation. While we have not examined whether this concern is warranted—that is, whether or not unrelated diversification is wealth destroying in the Indian context—it is indeed a valid question worthy of further examination. Recent findings reported by

Table 1. Univariate statistics and correlation matrix for study variables

Variables	Mean	s.d.	1	2	3	4	5	6	7	8	9	10	11	12	13
1. MUTUAL%	9.300	7.742	—												
2. BNKING%	8.847	7.941	0.450**	—											
3. FORGN%	20.210	20.460	-0.344**	-0.097	—										
4. FINST%	2.159	7.950	-0.180	-0.035	-0.191	—									
5. GOVT%	5.107	12.200	-0.275**	-0.312**	-0.053	-0.036	—								
6. DR-E	0.571	0.526	-0.088	0.011	0.118	0.080	0.099	—							
7. DU-E	0.347	0.436	-0.022	0.339**	0.020	-0.177	-0.098	-0.178	—						
8. DT-E	0.919	0.621	-0.090	0.247*	0.114	-0.056	0.015	0.723**	0.551**	—					
9. SIZE	2.564	0.428	0.213*	0.205	-0.238*	0.033	0.044	-0.019	0.286**	0.184	—				
10. DS1	0.046	0.210	-0.103	-0.001	0.092	-0.060	-0.070	-0.076	-0.103	-0.137	-0.142	—			
11. DS2	0.550	0.500	-0.032	-0.114	-0.097	0.121	-0.083	0.158	-0.254*	-0.045	-0.257*	-0.239*	—		
12. DS3	0.270	0.450	-0.028	0.095	0.092	-0.038	0.188	-0.135	0.214*	0.036	0.245*	-0.134	-0.671**	—	
13. PERF	0.185	0.079	-0.053	-0.093	0.229*	0.048	-0.124	-0.053	-0.277**	-0.239*	-0.371**	0.196	0.121	-0.193	—
14. LEVER	3.087	10.339	-0.087	-0.096	-0.144	0.033	-0.012	0.035	-0.007	0.025	-0.098	-0.049	0.146	-0.093	-0.181

* $p < 0.05$; ** $p < 0.001$

GOVT%: proportion of shares held by governmental agencies; FINST%: proportion of shares held by for-profit financial institutions; Mutual%: proportion of shares held by mutual fund companies; FORGN%: proportion of shares held by foreign investors; BNKING%: proportion of shares held by banks and insurance companies; DR-E: entropy measure of related diversification; DR-U: entropy measure of unrelated diversification; DT-E: entropy measure of total diversification; SIZE: natural log of assets; DS1: industry dummy (Food and Kindred products); DS2: industry dummy (Chemicals and Allied products); DS3: industry dummy (Industrial Machinery and Equipment); PERF: 3-year average of ROA; LEVER: 3-year average of debt to equity ratio.

Table 2. Results of OLS regressions using ownership variables as independents and diversification indices as dependents

Variables	β	β	β
	Model I DR-E (DV)	Model II DU-E (DV)	Model III DT-E (DV)
FINST%	0.112	-0.222*	-0.061
BNKING%	0.108	0.375**	0.355**
MUTUAL%	-0.014	-0.349**	-0.257
FORGN%	0.213	-0.042	0.151
GOVT%	0.167	-0.133	0.048
SIZE	0.022	0.165	0.134
DS1	-0.061	-0.167	-0.169
DS2	0.073	-0.227	-0.098
DS3	-0.173	-0.052	-0.184
LEVER	0.029	0.008	0.030
PERF	-0.094	-0.145	-0.181
F	0.749	3.507**	1.972*
Adj. R ²	-0.033	0.241	0.109

* $p < 0.05$; ** $p < 0.001$

GOVT%: proportion of shares held by governmental agencies; FINST%: proportion of shares held by for-profit financial institutions; Mutual%: proportion of shares held by mutual fund companies; FORGN%: proportion of shares held by foreign investors; BNKING%: proportion of shares held by banks and insurance companies; DR-E: entropy measure of related diversification; DR-U: entropy measure of unrelated diversification; DT-E: entropy measure of total diversification; SIZE: natural log of assets; DS1: industry dummy (Food and Kindred products); DS2: industry dummy (Chemicals and Allied products); DS3: industry dummy (Industrial Machinery and Equipment); PERF: 3-year average of ROA; LEVER: 3-year average of debt to equity ratio.

Khanna and Palepu (2000a, 2000b) suggest that unrelated diversification might not be an inappropriate option for companies in emerging economies such as India, due to their unique structural characteristics and concomitant market failures. Hence, it would be fruitful to explore whether the financial institutions and mutual funds operating in India are merely reflecting Western thinking by shying away from unrelated diversification without examining the salience of such advice in the Indian context.

The role of the government in the private sector has not been extensively studied thus far. The results suggest that here governmental agencies are passive investors at best, and are content to carry out the mandates of the legislature with respect to industrial policy. The fact that these investors do not actively influence firms in their diversification choices could be interpreted to be supportive of the conclusions of Lane *et al.* (1998), who contend that ownership and diversification strategies

are not related since organizational managers have much more knowledge about such matters than the investor groups. Perhaps the government agencies are then merely playing a 'hands-off' role, entrusting important decisions to organizational managers who may know best.

The benevolent stance of the banks and banking companies with respect to unrelated diversification runs counter to agency theory expectations. These investors represent for-profit organizations and hence in an agency theory framework could be expected to block unrelated diversification moves. By contrast, the findings from India suggest that these groups are significantly supportive of the efforts of management to diversify into unrelated domains. This supportive posture could originate in the fact that most of the large business houses that are the big clients of these banking investors are involved in diversification strategies. Therefore, these groups may be merely bowing to the drive among India's leading business houses to build conglomerate empires that have been surprisingly profitable (see Khanna and Palepu, 1997, 2000a).

Ownership and types of diversification

Our findings show that ownership variables explain unrelated diversification much better than they do either related diversification or total diversification. The related diversification model was especially weak since none of the predictor variables were statistically significant. The total diversification model performed marginally better. In this model, banks and banking company ownership was positively related to total diversification. This relationship is merely a reflection of their overall supportive stance originating from the business relationships with the firm's managers. This pattern of findings underscores a real need to differentiate between related and unrelated types of diversification before attempting to trace the impact of ownership, an approach that has not been standard practice in financial economics (e.g., Denis *et al.*, 1997).

In extending these findings relating to ownership, it could be quite important to explore the role of ownership concentration. For example, our study shows that foreign ownership was not significantly related to any of the three measures of diversification (related, unrelated, and total diversification). It is plausible that the concentration

of foreign ownership is fairly weak and hence foreign investors may not have the individual clout to influence corporate strategy. Hence, ownership concentration within each well-defined category of ownership groups could potentially moderate that group's ability to directly impact the firm's corporate strategy choices. It is quite possible that both the types of owners and their relative ownership concentration levels could be salient to understanding the ownership structure–diversification strategy relationship.

Country context does matter

The findings reported here are undoubtedly a function of the unique corporate governance mechanisms prevalent in India as discussed earlier. As in many other substreams, research on ownership has to encompass multiple settings to progress toward a middle-range theory of its impact on diversification choices. For example, the results show that the unique mix of objectives and motivations of specialized ownership groups in India have an important bearing on diversification strategy. Some groups such as governmental agencies do not have parallels in the U.S. economy. Hence, studying non-U.S. settings could enhance our understanding of the relationship.

Extrapolating these findings, one could ask whether diversification strategies have similar performance impacts across different countries or whether the diversification and performance relationship is context specific. Going by the recent findings of Khanna and Palepu (1997, 2000a, 2000b) it appears that there may be a significant element of context specificity associated with diversification choices. Consequently, as a next step, it may be worthwhile to examine the ownership → diversification → performance relationships in multiple settings to isolate the specific features of country context that have a bearing on a firm's propensity to diversify. Do ownership groups have similar behavioral dispositions across countries? Or does their behavior vary by setting? What are some of the nontraditional ownership groups that hold sway over organizational strategies in non-U.S. settings? Some studies have suggested that features such as significant family ownership, cross-corporate shareholding among family enterprises, and the incidence of quasi-governmental corporations bring an entirely different spectrum of corporate

governance questions (Chaganti and Damanpour, 1991; Monks and Minow, 1995). At a global level, finding answers to some of these questions will surely improve our understanding of what is perhaps a very complex set of dynamics that relate ownership and diversification choice.

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