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Influence Diversification Strategies? The Case
of French Companies

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Do Monitoring and Alignment Mechanisms Influence Diversification Strategies? The Case of French Companies

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Abstract:

This article investigates the relationship between ownership structure and corporate diversification strategy. It focuses on the potential conflict of interest between shareholders and managers regarding diversification, and tests the resolution of such conflict by shareholder monitoring and then by the alignment of managers' behaviour with that of shareholders. The study is original in that it is conducted on a population of large French companies, makes a clear distinction between insider and outsider ownership, and compares related diversification strategies to conglomerate strategies. The research shows that the effect of monitoring by outside blockholders is clear, leading to related diversification at the expense of unrelated diversification strategies. However, an increase in managerial ownership, far from leading to alignment, leads to managerial behaviour that goes against the interests of shareholders and more precisely to unrelated diversification strategies.

Keywords:

shareholders, diversification, monitoring, alignment, governance

INTRODUCTION

Despite the work published since the seminal article by Amihud and Lev (1981), questions remain regarding the relationship between shareholder structure and corporate diversification strategy. Using agency theory (Berle & Means, 1932; Fama, 1980; Fama & Jensen, 1983; Jensen & Meckling, 1976), early research postulated the existence of a conflict of interest between managers and shareholders regarding diversification. Indeed, shareholders consider that corporate diversification can entail a loss in value for them and the company; managers, meanwhile, generally favor diversification because it reduces the risk they bear regarding personal income and other interests their job provides. There are two means for reducing this agency conflict: monitoring of managers by shareholders and alignment of management's interest with that of shareholders. In their work, Amihud and Lev (1981) show that, unless closely monitored by shareholders, managers, out of a concern to diversify their personal risk, implement corporate diversification strategies that destroy shareholder value, a conclusion supported by the research of subsequent authors (Denis, Denis, & Sarin, 1997; Denis, Denis, & Sarin, 1999; Ramaswamy, Li, & Veliyath, 2002). Shareholders will be all the more involved in monitoring management strategic decisions when they hold a large stake of capital (Amihud & Lev, 1981; Bethel & Liebeskind, 1993; Chen & Wai Ho, 2000; Denis, *et al.*, 1997; Denis, *et al.*, 1999). A second stream of research endeavored to verify whether it was possible to align managers' behavior with that of shareholders by having managers increase their ownership in their companies. If this alignment seems to be feasible for the financial performance of the firm (Barnhart & Rosenstein, 1998; McConnel & Servaes, 1990, McConnel & Servaes, 1995; Séverin, 2001; Short, 1994; Short & Keasy, 1999), its duplication for diversification strategies is not clear, as relevant studies have led to contradictory results. For Denis *et al.* (1997), an increase in ownership by managers leads to an alignment of managers' behavior with that of shareholders, but May (1995) and Wright, Ferris, Sarin, and Awasthi (2002), on the contrary, found that it increases divergence in behavior between managers and shareholders. Indeed, if ownership can encourage managers to reduce diversification in order to limit loss in shareholder value, it increases their exposure to risk, since, in addition to their income from employment, it also exposes a large part of their overall wealth to the risk of a single firm. This risk management dimension encourages executives to diversify the business of their firms. A question then arises: which effect is predominant? The contradictory results of previous research do not settle the issue of a possible alignment or misalignment (Denis, *et al.*, 1999; Goranova, Brandes, & Dharwadkar, 2007; Wright, Ferris, Sarin, Awasthi, 2002). These questions of monitoring and alignment remain open, particularly since the methodology most frequently used to study this issue has several limitations that impact the robustness of the results. For instance, Amihud and Lev (1981) make no distinction between insider and outsider shareholders, yet these two groups may have different expectations of

the firm's strategy. The work of Denis *et al.* (1997, 1999) and most of the work based on agency theory does not distinguish between different types of diversification. Yet conglomerate diversification is generally seen as a strategy that reduces value, whereas related diversification is seen as a strategy that can create value for a firm (Palich, Cardinal, & Miller, 2000). The originality of the present study lies precisely in the fact that it contributes to the theoretical debate about alignment and offers more robust results. On the one hand, it represents a theoretical and methodological advance: we make a clear distinction between outside shareholders (shareholders with no managerial position) and inside shareholders (officers holding stakes), and we split total diversification into related and unrelated diversification. This makes it possible to test, on the same sample, the effects of both monitoring and alignment mechanisms on unrelated diversification strategies, which has not been done before. On the other hand, this research, because it has been conducted on the French market, provides a means for empirical comparison. There are two factors, then, that make this study original. First, while focusing on the French case -unlike the majority of studies conducted in the Anglo-American context- it relies on works highlighting the influence of the institutional framework on agents' behaviors (La Porta, Lopez-De-Silvanes, Shleifer, & Vishny, 2000) and, more broadly, on studies showing that national context can play an important role in this domain (Ramaswamy *et al.*, 2002). Second, it focuses on a market characterized by high shareholder concentration and by the fact that managers usually share a common social and educational background, and are therefore a less diverse group than might be found in most other countries (Bauer & Bertin-Mouro, 1995; Carminatti-Marchand & Paquerot, 2004). The findings of our empirical study indicate that if monitoring by blockholders clearly influences managers' behaviors, managers' shareholding, far from leading to alignment, leads instead to management behaviors that go against shareholders' interests.

THEORETICAL FRAMEWORK AND HYPOTHESES

Diversification and agency conflict between managers and shareholders

Agency theory is the fundamental theoretical approach for understanding questions about ownership structures and the control of managers' actions. It is based on the postulate of a separation of functions between the individuals who manage the firm (the CEO and senior managers, called agents) and those who are its owners and bear the consequences of management's decisions (the shareholders, called principals) (Berle & Means, 1932; Fama, 1980; Fama & Jensen, 1983; Jensen & Meckling, 1976). This theory, based on the hypothesis of maximization of personal utility, assumes that the two opposing parties are opportunistic and systematically pursue their personal interest. It allows light to be shed

on choices regarding corporate diversification, insofar as managers and shareholders have opposite attitudes *vis-à-vis* this strategic decision: shareholders are averse to unrelated diversification, whereas managers favor it. It is generally accepted that shareholders are averse to unrelated diversification for two main reasons. First, according to the theory of the Capital Asset Pricing Model, shareholders are only sensitive to specific risk and are indifferent to the unsystematic risk of a given investment, as they can reduce it to zero via the diversification of their investment portfolio (Sharpe, 1964). Since they are sensitive only to systematic risk, they consider that decisions aiming exclusively to reduce unsystematic risk (such as unrelated diversification) reduce the value of their investment. Second, shareholders' aversion to diversification is linked to the reduction in firm value associated with this strategy, as shown in numerous studies (Berger & Ofek, 1995; Comment & Jarrell, 1995; Lang & Stulz, 1994). This reduction in value mainly concerns conglomerate diversification (Martin & Sayrak, 2003). More precisely, if one refers to the literature review by Palich *et al.* (2000), the relationship between the level of diversification and performance would be expressed as an inverted U. Managers, meanwhile, favor diversification for at least three main reasons. First, diversification lowers company risk, as it combines industry cash flows that are not perfectly correlated (May, 1995). It also enables managers to reduce their employment risk (Amihud & Lev, 1981). Second, it brings them prestige and power (Jensen, 1986; Stulz, 1990). Third, executive compensation is often linked to the size of the firm (Jensen & Murphy, 1990). Of all the different forms of diversification, unrelated diversification takes priority because, on the one hand, it enables the reduction of unsystematic risk and, on the other hand, it provides more projects to conduct. Moreover, unrelated diversification can make managers indispensable to the firm (Shleifer & Vishny, 1989). Thus, if managers favor diversification and shareholders are averse to it, an agency problem arises. This problem was highlighted by Amihud and Lev (1981), who analyze conglomerate mergers in terms of the pursuit of personal interest by managers who are insufficiently monitored. Most authors accept that such a conflict of interest exists, with the notable exception of Lane, Canella and Lubatkin (1998, 1999), who consider that agency theory does not apply very well to diversification decisions that do not generate serious conflicts of interest between managers and shareholders. In 1999, Strategic Management Journal opened its pages to a discussion of this issue, and enabled Amihud and Lev and Lane, Canella and Lubatkin to clarify their disagreement on this question. The main differences between them concern the interest of the conglomerate, the validity of agency theory in the case of diversification, and finally the very conception of diversification. The disagreement may derive in part from the different nature of the respective authors' research domains: Amihud and Lev are financial economists, whereas Lane *et al.* are strategic management researchers. Amihud and Lev (1981) affirm that conglomerate diversification does not create value for blockholders, since the latter can reduce risk by diversifying their investment portfolios. This leads to the argument that unsystematic risk should not be reduced via the firm's

portfolio of businesses. Lane *et al.* (1998) assert that this view is too reductive and that it does not take into account other forces that impact strategic decision, especially those wielded by the people who create and use the resources of the company. As early as their 1998 article, they mention that an excessive focus on the interest of shareholders' can reduce cooperation between other stakeholders and thereby reduce the overall level of performance. The second major area of disagreement concerns opportunism. For Lane *et al.* (1998), managers in a great number of cases do not pursue their personal interest, but seek cooperation with owners instead. They consider that stewardship theory, which postulates less self-centered behavior on the part of managers, applies to many management decisions, and in particular to those concerning diversification. Indeed, for them, this decision is not a source of major conflict between managers and shareholders, as shareholders are not very involved in corporate decision-making. Finally, the authors disagree on the concept of diversification itself. In Amihud and Lev's article (1981), product extensions and market extensions are considered conglomerate diversifications. For Lane *et al.* (1998), a clear distinction needs to be made between related and unrelated diversification, since related diversification can have a positive impact on value creation. For these authors, product and market extensions are related diversifications, whereas for Amihud and Lev (1981) they are considered unrelated. Despite the study by Lane *et al.* (1998), agency theory remains the main theoretical framework for studying these questions. In particular, it emphasizes two means to attempt to mitigate conflicts between managers and shareholders. Either ownership structures must be concentrated, so that owners have an incentive to control managers' actions, or the firm must set up outcome-based incentives to ensure that a high proportion of managers' income is linked to firm performance (Jensen & Murphy, 1990). The underlying idea is that, in these conditions, managers who own equity stakes or stock options can have an interest in acting in congruence with the interest of shareholders (Zhang, Bartol, Smith, Pfarrer, & Khanin, 2008). We now turn to an analysis of the effect of monitoring and alignment on firms' diversification strategies.

Agency conflict and monitoring

The question of monitoring was thrown into particular relief by Amihud and Lev (1981). Their initial objective was to address the following question: why do firms undertake conglomerate diversification when shareholders are able to diversify their investment portfolios to reduce their exposure to unsystematic risk? They test the following hypothesis: the diversification decision (measured by conglomerate mergers) is a function of the type of control of the firm ("manager-controlled" versus "owner-controlled"), bearing in mind that the lesser the shareholder control, the greater the propensity of the firm to diversify. By testing the relationship on a sample of 309 Fortune 500 industrial companies, many of which made acquisitions over the period of analysis (1961-1970), the authors demonstrate that the degree of corporate diversification

is higher for “manager-controlled” firms than for “owner-controlled” ones. Therefore, their research indicates that companies without large blockholders are engaged in more unrelated diversification, because managers are not monitored and try to reduce their non-diversifiable employment risk. However, the study in question does not distinguish between different types of blockholders. Furthermore, it adopts a very broad vision of conglomerate diversification in that it includes product and market related diversifications in this category. Denis *et al.* (1997), meanwhile, have demonstrated that, for a sample of 933 firms selected in 1984, the probability of a firm’s being diversified is negatively correlated to shareholding by outside blockholders. In their research, outside blockholders hold at least 5% of the shares and have no relation with the top management of the company. This distinction between outside and inside blockholders is an important contribution, as their objectives are clearly different. The greater the percentage ownership of blockholders, the less likely the firm is to undertake diversification strategies. However, their study does not distinguish related and unrelated diversification. In the context of research using diversification as a dependent variable, it is useful to make a clear distinction between the different types of diversification as shareholders do not think of them in the same way. More recently, Ramaswamy *et al.* (2002), using a sample of 88 Indian manufacturing firms, have shown that if the proportion of ownership attributable to mutual funds and financial institutions negatively influences unrelated diversification, other shareholders have no influence (governmental agencies) or a positive influence (banking companies) on corporate diversification. This research shows that taking into account the very nature of shareholders can lead to results that do not totally support conclusions of previous works based on agency theory. In line with previous literature, it appears that (i) outside shareholders are averse to unrelated diversification; (ii) managers prefer unrelated diversification; and (iii) the desire and ability of outside shareholders to monitor managers is linked to the stake they hold in companies. Nevertheless, outside blockholders’ influence on unrelated diversification has not been tested before. Additionally it seems useful for research in the field to replicate Amihud and Lev’s study (1981). Indeed, as mentioned by Lane *et al.* (1998), although Amihud and Lev’s (1981) research continues to be widely cited in the literature, support for large shareholders’ monitoring rests on this single study. Nevertheless, very few comparable researches have been conducted since this seminal study. Within the framework of the present study, we propose to overcome the limitations of previous research and to test the effects of monitoring by outside blockholders on unrelated diversification. We posit **hypothesis H1a**:

Hypothesis 1a. *The percentage of stock owned by outside blockholders will have a negative effect on unrelated diversification.*

Aversion to unrelated diversification means that if the firm chooses a diversification strategy, shareholders will always prefer related diversification to unrelated diversification. Thus, if one considers the ratio “unrelated diversification / total diversification” (henceforth termed

the “remoteness diversification ratio”), this ratio will be lower to the degree that the firm is well-monitored by outside blockholders, which leads us to formulate **hypothesis H1b**:

Hypothesis 1b. *The percentage of stock owned by outside blockholders will have a negative effect on the ratio between unrelated diversification and total diversification.*

Agency conflict and alignment

The second method of resolution of this agency conflict, namely the alignment of managers’ objectives with those of shareholders, still gives rise to debate. Denis *et al.* (1997) have demonstrated that the probability for a company to be diversified is negatively linked to managers’ shareholding. However, their study measures managerial ownership by the share of capital held by both officers and directors. As Lane *et al.* (1999) point out, in the framework of agency theory these two groups have divergent interests. Goranova *et al.* (2007), conducted a study on a sample of 961 U.S. firm-year observations. From a cross-sectional point of view, their study supports the negative relationship between the share of capital held by managers and total and unrelated diversification. In contrast, when adopting a longitudinal viewpoint, they find that managerial ownership does not influence subsequent diversification. In his study of 184 acquisitions, May (1995) obtains results which contradict those of Denis *et al.* (1997): the more personal wealth vested in the company by the Chief Executive Officer (CEO), the greater the degree of firm diversification. This leads May (1995) to put forward a new dimension to be taken into account and to conclude that “the accumulation of equity wealth while aligning effort incentives may make the manager more risk-averse and thus misalign risk-taking incentives”. Other studies (Wright *et al.*, 2002; Aggarwal & Samwick, 2003) highlight the necessity to take into account this effect: the rise in managerial ownership increases the specific risk managers must bear, and this leads them to diversify the firm more. The increase in risk borne by managers cancels out, at least partially, the effect supposed to enable alignment, namely that managers must bear the loss in value due to diversification. Even though their empirical study reveals a negative relationship between diversification and managerial ownership, Denis *et al.* (1999) point out that “under the risk-reduction hypothesis, the predicted relation between managerial ownership and diversification is ambiguous”. Several arguments suggest that managerial ownership can only entail an increase in diversification and result not in an alignment but rather in a greater misalignment. Firstly, it is generally accepted that the manager who invests in his firm’s capital will limit diversification in order to avoid the loss in value associated with this strategy. Nevertheless, the manager can reduce this loss in value without changing the level of diversification. There is now a certain consensus among researchers (Barnhart & Rosenstein, 1998; McConnel & Servaes, 1990; McConnel & Servaes, 1995; Morck, Shleifer, & Vishny, 1988; Séverin, 2001; Short, 1994; Short & Keasy, 1999) that managerial ownership increases managers’ efforts to obtain a greater return on equity, according to studies that did not take into

account the level of diversification. Thus, even if one clearly sees a loss in value due to diversification, one can wonder whether this loss is less significant for firms whose managers hold a large share of the capital. This suggests that managers have some leeway to improve performance without renouncing diversification. The improvement of performance measured by the risk/return ratio (and only systematic risk) can, at least partially, be dissociated from the diversification strategy, the value of which in the manager's eyes is to diversify specific risk. On the other hand, some studies have indicated that the alignment of managers only works when the manager increases his shareholding up to a certain limit. Beyond this limit, an increase in managerial ownership results in lower performance (McConnel & Servaes, 1990; Morck, *et al.*, 1988). The theoretical explanation most commonly put forward to elucidate why performance is an inverted-U function of managerial ownership is that beyond a certain threshold, managers no longer fear losing control of the firm, especially via a takeover bid. This supports the idea that performance is not necessarily their main concern. Secondly, in line with the argument put forward by May (1995) and taken up by Denis *et al.* (1999), the more managers invest in the firm's capital, the more they become sensitive to the specific risk of the firm. Indeed, in addition to their salary and drawing on free cash flow, the manager bears a specific risk on a growing proportion of his financial assets as his level of ownership increases. In these conditions, the manager will adopt a prudent attitude by realizing risk-reducing acquisitions (Wright, Kroll *et al.*, 2002). To better understand this situation, we refer to the findings of prospect theory (Kahneman & Tversky, 1979; Tversky & Kahneman, 1991). This theory shows in particular that actors tend to overweight potential losses relative to potential gains. Like other authors, Pablo (1999) highlights the propensity for managers to adjust their decisions in such a way as to reduce their exposure to potential losses (March & Shapira, 1987; Miller & Leiblein, 1996; Wiseman & Gomez-Mejia, 1998). Studying earnings manipulation, Zhang *et al.* (2008) confirm this managerial tendency to focus on the risk of losses. Consequently, as managers increase their share of equity and their exposure to the specific risk of the firm, they will probably become more inclined to concentrate on risks of loss they face rather than on supplementary financial gain. This tendency can lead them to undertake more corporate diversification. Finally, an increase in the manager's share of the firm's capital generates an increase in the private cost related to diversification; this cost can, however, be reduced by better management. It also gives rise to an increase in the private gain related to the increase in the manager's financial assets exposed to the specific risk of the firm. It then entails a change in the perception of the problem that can lead to an overweighting of potential losses relative to potential gains. As it has been shown that alignment is not complete as regards the performance objective, there is every reason to assume that managers will increase their preference for risk reduction as their ownership increases, and that they will choose a higher level of diversification. Managerial ownership therefore leads to a misalignment of objectives. Moreover, the possibility for managers to imprint their personal objectives on the strategy of the company depends on their

capacity to impose their decisions on non-executive shareholders. They achieve this objective all the more easily to the extent that they dominate not only the decision-making bodies but also the firm's control bodies. Thus, the more shares they own, the more influence they have on decisions and the more directors' seats they control.

According to previous literature, it appears that outside shareholders are averse to unrelated diversification, whereas managers prefer unrelated diversification. Our analysis leads us to maintain that managers' shareholding does not lead to alignment but, on the contrary, to misalignment. We thus propose to test the influence of officers' shareholdings on unrelated diversification, a relationship that has never been tested before. Finally, we propose to test **hypothesis H2a**:

Hypothesis 2a. *The percentage of stock owned by officers will have a positive effect on unrelated diversification.*

If the firm chooses to diversify, managers will always prefer unrelated diversification because it reduces their personal risk exposure more than related diversification. The more power managers have, then, the greater the remoteness ratio. This gives rise to **Hypothesis H2b**.

Hypothesis 2b. *The percentage of stock owned by officers will have a positive effect on the ratio between unrelated diversification and total diversification.*

DATA AND METHODOLOGY

To test the hypotheses, we mainly had recourse to regression models using variables that measure diversification as dependent variables and variables measuring ownership structures as independent variables. Several control variables (share of capital owned by officers, share of capital owned by institutional investors, share of capital owned by the State and governmental agencies, industry, year, size of firm) that may influence diversification were also taken into account. To complement these regression analyses, we conducted a cluster analysis that aimed to identify typical diversification strategies, and then to test the differences in ownership structures between the companies adopting each type of strategy. Finally, we identified four types of ownership by measuring both that of shareholders and that of managers, and we tested the influence of each type of structure on the different diversification measures.

Sample and data

This article examines the ownership structures of the large companies that make up the CAC 40, the major index of the Paris stock market, representing the 40 most actively-traded French stocks. These 40 companies belong to different sectors and normally reflect the general trend of large French firms' economic performance. We refer to the Thomson Reuters -Thomson One Banker Ownership Equity- database. This database, also known as Shareworld GEO Carson, lists ownership structures of international companies and registers investors' equity

portfolios across global stock markets. We present data on ownership structures for large French firms belonging to the CAC 40 from 2004 to 2006, which led us to the study of 126 observations. Our sample includes all companies having belonged to the CAC 40 index in at least one of the three years covered. As some companies entered and left this index during the observation period, the number of observations exceeds 120. We focus on those companies' ownership structures and we distinguish the share of capital held by managers from that held by large outside owners.

Measuring ownership concentration

The distinction between inside and outside owners is necessary for testing the means for reducing agency conflicts. This enables the resolution of the methodological problem posed by the work of Amihud and Lev (1981), namely how to measure the concentration of ownership without identifying the type of shareholder. Indeed, by way of an example, these authors' work considers as "strong owner-controlled" a company whose CEO owns 30% of the capital. Nevertheless, as Denis *et al.* (1997) point out, their study cannot distinguish between incentives and monitoring effects. In our research, for the estimation of managerial ownership we take into account only the share of capital held by officers; in contrast to Denis *et al.* (1997), we do not include directors. Indeed, by grouping together these two actors, they pool agents that have different interests: officers have to manage the firm and directors have to control to ensure that managers behave in shareholders' interests (Lane, *et al.*, 1999). Concerning shareholders, we adopt the threshold of 5% of a firm's equity, used by many researchers as the threshold for differentiating "manager-controlled" firms from "owner-controlled" ones (Glassman & Rhodes, 1980; Gomez-Mejia, Tosi, & Hinkin, 1987). Indeed, researchers have demonstrated that 5% stock ownership is sufficient to allow a significant influence on a firm (see Gomez-Mejia *et al.*, 1987 for a review of this). In the French context, this cut-off point has a special meaning: this threshold is considered important by the authorities regulating the French financial markets, which require any shareholder who owns more than a 5% stake in a company to disclose his/her identity to CEOs. Outside shareholders holding more than 5% of the capital are thus called outside blockholders. As managers are present in all companies' management bodies, they bear no cost of control. We therefore consider that their power is directly proportional to their share of capital held.

Diversification measures

To measure the level of diversification of French companies, we refer to their annual reports. We make a distinction between related and unrelated diversification. Indeed, the synergies associated with related diversification can lead managers and shareholders to consider them differently from conglomerate diversification. This allows us to overcome the limitations of the study by Amihud and Lev (1981), which adopts an excessively broad vision of conglomerates, as well as that of Denis *et al.* (1997), which ignores the degree of relation between the firm's

different activities. The question of the measurement of diversification is an important one: it is worth mentioning that when Lane *et al.* (1998) replicated Amihud and Lev's research (1981), splitting the "all conglomerate" category into product extension, market extension and pure conglomerate, the results did not support the association between management-controlled firms and higher levels of unrelated mergers.

In this study, we refer to the work of Rumelt (1974) regarding type diversification, which is widely employed in research on strategy. His classification of firms has the advantage, compared to measures based on SIC codes (e.g. Herfindhal-type measures), of highlighting the links between business activities and thereby specifying the rationale underlying each firm's diversification. The activities of each firm were broken down into business units, each business unit being composed of products that are very inter-dependent and that largely share the same value chain. The various business units were grouped into three categories: main activity, activities related to the main activity and activities unrelated to the main activity. The principal or secondary character of an activity is assessed in light of its contribution to sales. Related activities are those that present synergies with the main activity in terms of products and/or markets and/or know-how. Unrelated activities are those that present few or no synergies with the other activities. We then measured the level of related and unrelated diversification, i.e. the fraction of sales attributable on the one hand to business units related to the largest single business unit and on the other hand to business units unrelated to the main activity. This allows us to assess both type and level of diversification, which are two distinct notions (Palich, Cardinal, Miller, 2000).

Rumelt's approach (1974) is limited, mainly due to the fact that analysis of the links between activities is quite subjective. To overcome this, the type and level of diversification were coded separately by the authors, and a consistency level was calculated (percentage of firms for which the coders placed the business units in the same categories). The coders agreed on coding for 96% of the companies and differences were resolved through a discussion among coders'. Since the coders are the researchers themselves, there was a possibility of bias, so a reliability check was performed. Another specialist who was not familiar with the hypothesis was asked to make the same assessments for all the companies. A consistency level of 93% was recorded, which is commendable. Finally, this work made it possible to determine the four following ratios for each company. These were necessary for the testing of our hypotheses:

- Specialization ratio: sales from main activity/total sales
- Related diversification ratio: sales from activities related to the principal activity/total sales
- Unrelated diversification ratio: sales of unrelated activities/total sales
- Diversification "remoteness ratio": sales of unrelated activities/total diversification

We created this latter ratio because it is not possible to test the

relative preference for unrelated diversification compared to total diversification (**H1b** and **H2b**) with the various existing ratios found in the literature.

Control variables

Firm size

Previous researchers have established a positive relationship between diversification level and firm size (Grant, Jammine, & Thomas, 1988). Firm size is measured as a logarithmic function of total sales.

Institutional investors

We measure the influence of large institutional investors by aggregating their shares in the companies' capital. Investors who hold large blocks of shares are involved in the monitoring functions of leaders and can have an influence on the growth strategies of firms (Hawley & Williams, 2000). It can be assumed that, just as for blockholders, institutional investors have an aversion to unrelated diversification strategies.

Non-executive directors

We consider that the holding of shares by directors is a good proxy for incentives to control managers (Denis, *et al.*, 1997; Shleifer & Vishny, 1986). As agents of shareholders, directors should act in the interest of shareholders and not engage in unrelated diversification.

Industry

We included dummy industry variables determined on the basis of the principal business unit of the firm to control for industry influences on corporate diversification. We can assume that the specific conditions of the sector (specific constraints and opportunities) can influence the opportunities and the need for diversification (Denis, *et al.*, 1997). The sample encompasses eight different industries defined according to the European NACE classification: manufacturing; utilities (electricity, gas and water supply); construction; wholesale and retail trade; transports, storage and communication; financial and insurance activities; accommodation and food service activities; and real estate, renting and business activities.

Government ownership

The State has not been taken into account in the majority of studies on the link between ownership structure and corporate diversification, most of these being undertaken in a US context. Indeed, in the United States, government ownership is very limited in industrial sectors. However, in other institutional contexts, and especially in the French context, government ownership can be particularly important. It is thus central to consider the influence of governmental ownership on corporate diversification strategies: is there a specific relationship between the type of diversification (unrelated or related) and government ownership in companies? (See Ramaswamy *et al.*, 2002, for a critical review on the role of the State in monitoring and influencing companies' strategies).

Year

As we use year-observations, it is important to check whether the period of time (e.g. the economic context) may influence the level of diversification.

RESULTS

The XLSTAT software program was used to process the data. **Table 1** reports the means, standard deviations and correlations among variables.

Table 1: Descriptive statistics and correlations

Variables	Mean	SD	1	2	3	4	5	6	7	8	9
1 Total diversification	44.76	19.75									
2 Related div	29.86	24.07	.56***								
3 Unrelated div	14.92	20.99	.29***	-.62***							
4 Unrelated div/total div	.34	.43	-.04	-.78***	.86***						
5 % of shares held by officers	4.85	12.30	-.15	-.34***	.25**	.30***					
6 % of shares held by large outside owners	14.53	20.55	.08	.32***	-.29**	-.32***	-.24**				
7 % of shares held by non-executive directors	3.69	9.45	.11	.27**	-.21*	-.25**	-.13	-.12			
8 % shares held by large institutional investors	1.61	3.63	.11	.03	-.06	.05	-.09	-.08	.01		
9 % shares held by government	4.86	12.98	.12	.18*	-.1	-.13	-.12	.62***	-.08	.02	
10 Log sales	16.63	.91	.13	-.02	.15†	.15†	.02	.11	-.25**	-.15	.13

n = 126 Significant at † 0.1 level, * 0.05 level ; ** 0.01 level ; *** 0.001 level

We see that the percentage of capital held by managers is positively correlated with the level of unrelated diversification ($r=0.25$, $p<0.01$) as well as with the diversification remoteness ratio ($r=0.30$, $p<0.001$). As regards outside blockholders, we see a negative correlation between their capital holdings and unrelated diversification ($r=-0.29$, $p<0.01$) and a negative correlation with the diversification remoteness ratio ($r=-0.32$, $p<0.001$). It is also interesting to observe that we find no significant correlation between the level of total diversification, on the one hand, and the level of managerial ownership ($r=-0.15$, ns) and of outside blockholders ($r=0.08$, ns) on the other. Thus, if the level of equity holdings by managers and blockholders seems to be linked to the type of diversification, no link can be established with the level of total diversification. For all diversification choices, the correlations concerning non-executive directors are similar to those of outside blockholders, which seems to indicate an alignment of objectives. Concerning the other investors, the capital stake held by institutional investors does not seem to be linked to any of the diversification measures. This result is consistent with our previous research which focused on this specific relationship (Lacoste, Lavigne & Rigamonti, 2009). Conversely, the percentage of capital owned by the State is positively linked with related diversification ($r=0.18$, $p<0.05$). As expected, size is positively linked to total diversification ($r=0.13$), but this relationship is not significant. Size is also positively linked to the level of unrelated diversification ($r=0.15$, $p<0.1$) and the diversification remoteness ratio ($r=0.15$, $p<0.1$).

In **Table 2**, we present the results of our regression analyses.

Table 2: Regression analyses

	Model 1 Unrelated div	Model 2 Unrelated div/ total div	Model 3 Related div	Model 4 Total div
Intercept	-67.21*	-167.68**	69.45*	4.41
% of shares held by officers	.54***	1.22***	-.57***	-0.02
% of shares held by large outside owners	-.19*	-.38*	.07	-0.12
% of shares held by non-executive directors	-.44*	-1.18**	.77***	.34†
% sales held by large institutional investors	.43	.61	.25	.72
Log sales	5.15**	12.61**	-1.98	3.03
% shares held by the State	-.32*	-.66*	.51**	.20
Year 1	2.85	1.57	-2.23	.45
Year 2	2.44	.97	1.26	3.35
Sector 1	-4.87	-2.27	-14.69†	-19.58*
Sector 2	34.71***	49.11*	-35.77**	-1.04
Sector 3	4.92	-3.56	-4.01	1.37
Sector 4	-34.91**	-75.62**	9.96	-24.75*
Sector 5	6.19	39.32*	-26.38*	-20.24
Sector 6	10.82	21.09	-19.68*	-8.8
Sector 7	-15.59†	-34.9*	16.37†	1.1
F	8.83***	8.44***	8.35***	2.96*
R2	.55	.54	.53	.29

$n = 126$

† $p < 0.1$; * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$

Sector 1: manufacturing; Sector 2: utilities (electricity, gas and water supply); Sector 3: construction; Sector 4: wholesale and retail trade; Sector 5: accommodation and food service activities; Sector 6: transport, storage and communication; Sector 7: financial and insurance activities.

Model 1 concerns unrelated diversification. The regression is significant (F Test= 8.83, $p < .001$). This model makes it possible to confirm that managers have a positive influence on this strategic choice ($b = 0.54$, $p < 0.001$) whereas outside blockholders are averse to it ($b = 0.19$, $p < 0.05$). These results support **hypotheses H1a** and **H2a**. Model 2 explains the diversification remoteness ratio. As expected, officers have a positive influence on this variable ($b = 1.22$, $p < 0.001$), whereas outside blockholders influence it negatively ($b = -0.38$, $p < 0.05$). The regression is significant (F test=8.44, $p < .001$), hence we find support for **hypotheses H1b** and **H2b**. The validation of **H1b** can be explained by the fact that officers have a positive influence on unrelated diversification (model 1) and a negative influence on related diversification (model 3: $b = -0.57$, $p < 0.001$). The validation of **H2b** can be explained by the negative influence of outside blockholders on unrelated diversification (model 1). The analysis of the correlations seems to show the indifference of the various actors studied *vis-à-vis* total diversification. We wanted to validate this observation using a regression model designed to explain this variable. Model 4 thus uses the same explanatory variables as models 1, 2 and 3. This model is significant (F=2.96, $p < .05$) but neither officers' nor blockholders' ownership influence

total diversification. The industry is the only significant explanatory variable in this model. This result is of much interest since it shows that the level of total diversification is explained by variables that have nothing to do with ownership structure, and that managers and outside blockholders are more concerned with the type of diversification than with its overall level. In addition, our results clearly show that the year is not a significant variable. As the table below indicates, both diversification and ownership structure are stable over the observation period.

Table 3: Stability of diversification and ownership structure over the period

	Total diversification	Unrelated diversification	% shares held by officers	% shares held by blockholders
Year 1	56,69%	15,48%	4,76%	14,35%
Year 2	54,23%	15,28%	5,28%	13%
Year 3	54,78%	14,03%	4,52%	16,16%

However, industry membership influences corporate diversification in at least three ways. First, the attractiveness of an industry can influence the willingness of managers to diversify. Second, the potential for synergies varies across industries (Porter, 1980). Third, it seems that there is a trade-off and a negative association between product and international diversification (Kumar, 2009). As some industries are by nature more internationalized than others, it can be hypothesized that in these industries, all things being equal, diversification rates will be lower. For instance, the manufacturing industry is more open to global competition than the utilities sector. We can thus assume that as manufacturing companies have to internationalize their activities to remain competitive, they cannot at the same time diversify out of their business; this is due to limited resources (Kumar, 2009). In our study, for example, being part of the manufacturing industry has a negative influence on diversification, whereas being a member of the utilities industry has a positive effect on unrelated diversification (see **table 2**).

To test the robustness of our results and clarify them, we conducted additional data analyses, and these represent a step forward compared to previous studies.

We first grouped the firms according to their diversification strategy by taking into account the level of both related and unrelated diversification. The objective was to analyze the differences between the groups obtained in terms of ownership structures. We used two different methods of cluster analysis: k-means and hierarchical (Ward's criterion). These methods converge and reveal three distinct groups. The results of the k-means analysis are presented in **Table 4**. This table shows the average percentage of sales realized by the three groups in activities related to the principal activity (related diversification) and that realized by activities unrelated to this principal activity (unrelated diversification). The table also

highlights the percentage of the equity held by managers and outside blockholders for each group identified.

Table 4: Cluster analysis 1 (Criteria: related and unrelated diversification)

	Sample	Group 1	Group 2	Group 3
Related div. ratio	29.86%	7.02%	51.71%	10.97%
Unrelated div. ratio	14.92%	44.25%	2.43%	3.4%
Strategy	---	Unrelated div	Related div	Specialization
Number of cases	126	37	62	27
% of shares held by officers	4.85%	9.52%	.12%	9.31%
% shares held by large outside blockholders	14.53%	3.44%	19.23%	18.92%

Group 1 is characterized by a higher-than-average level of unrelated diversification and a lower-than-average level of related diversification. In contrast, Group 2 is remarkable for its very low level of unrelated diversification and its high level of related diversification. Finally, Group 3 is characterized by a low level of diversification, whether related or unrelated. Not surprisingly, Group 1 is made up of companies in which managerial ownership is higher than average and outside blockholders have a lower-than-average level of ownership. Similarly, Group 2's strategy seems to be largely influenced by a strong presence of outside blockholders and the relative weakness of managers in the capital of their firms. The characteristics of Group 3 are more difficult to explain. It seems that a strong presence of both managers and outside blockholders leads to a relatively weak level of total diversification (14.37% of sales versus 44.78% for the sample). This finding is surprising, since Regression Model 4 indicates that total diversification is independent of ownership structure. Analysis of the variance shows that the differences between the groups are significant as much for managerial ownership ($F=10.398$, $p<0.0001$) as for the share of ownership by outside blockholders ($F=8.546$, $p<0.0001$). To go further and in particular to gain a better understanding of this last result, we created groups of firms by crossing the variables “% shares held by officers” and “% shares held by large outside blockholders”. For each variable, we considered that the share is low (high) when it is less than (greater than) the median for the observed population. This leads to the classification presented in **Table 5**.

Table 5: Classification of firms based on ownership structure (officers and outside blockholders)

		% shares held by officers	
		Low	High
% shares held by large outside blockholders	Low	Group A (LL)	Group B (HL)
	High	Group C (LH)	Group D (HH)

Each group is then characterized by one of the different diversification strategies. **Table 6** shows the average value of companies belonging to each group for the different diversification ratios: specialization, related diversification, unrelated diversification, and the diversification “remoteness ratio”.

Table 6: Cluster analysis 2 (Criteria: % shares held by officers and outside blockholders)

	Sample	Group A LL	Group B HL	Group C LH	Group D HH	F	Pr>F
Specialization ratio (%)	55.2%	54.7%	59.5%	51.7%	63.8%	1.689	0.173
Related div. ratio (%)	29.9%	28%	13%	41.5%	21%	10.95	0.0001
Unrelated div. ratio (%)	14.9%	17.3%	27.5%	6.8%	15.2%	6.67	0.0001
Total	100%	100%	100%	100%	100%		
Div. remoteness ratio	34%	39%	61%	13%	54%	10.09	0.0001
Number of firms	126	37	26	52	11		

In accordance with our previous results, we observe, first, that the level of related diversification is maximal and the diversification remoteness ratio minimal when officers have a small share of the capital and outside blockholders a large one (Group C). The opposite emerges from the results when managers have a high share and outside blockholders a low one (group B). For these two variables, variance analysis shows that the differences are significant ($F=10.949$, $p<0.0001$ for related diversification and $F=10.09$ $p<0.0001$ for the diversification remoteness ratio). Second, we observe that the level of unrelated diversification is maximal when officers have a high share of the capital and outside blockholders a low share (Group B), and that it is minimal in the opposite case (Group C). ANOVA is also significant for unrelated diversification ($F=6.675$, $p<0.0001$). As for specialization, we observe, in accordance with the findings of the cluster analysis (**Table 3**), that the level of specialization is highest when managers and outside blockholders hold large equity stakes (Group D). However, analysis of variance in this table shows that the differences observed are not significant ($F=1.689$, ns), which is consistent with regression analysis model 4.

DISCUSSION

Research in economics and management has highlighted the conflict of interest between shareholders and managers where corporate diversification is concerned. Two levers are generally put forward to resolve this conflict. On the one hand, the presence of blockholders in the capital of companies makes it possible to monitor officers. On the other hand, granting stocks to executives should make it possible to align executives' interests with that of shareholders. In this paper, we simultaneously tested the effectiveness of both monitoring and alignment on the same sample of large companies. No authors had

done this before, with the notable exception of Denis *et al.* (1997). We also differentiated related and unrelated diversification on the one hand and the ownership by officers and directors on the other hand, which Denis *et al.* (1997) do not. More generally, our study overcomes the methodological limitations of previous studies (see **Appendix 1**). It does so firstly by clearly distinguishing different types of diversification, secondly by taking into account the divergent expectations of insiders and outsiders, and lastly by proposing a new measure of diversification that makes it possible to test the relative preference for unrelated diversification versus total diversification (“remoteness diversification ratio”). Moreover, we have conducted additional data analyses (and in particular cluster analyses) in order to go further than the traditional regression analyses. In line with Amihud and Lev’s (1981) landmark study, our research demonstrates that, unless monitored by large blockholders, managers will undertake unrelated diversification. Our study thus seems to validate the existence of an agency conflict regarding the issue of diversification. In contrast, our research does not support the theoretical argument grounded in the stewardship theory and developed by Lane *et al.* (1998): decisions regarding diversification can create sharp conflicts of interest between managers and shareholders. Regarding the issue of alignment, our research indicates a positive correlation between the level of unrelated diversification and the percentage of shares held by officers. This result seems to indicate that, at least in the French context, the objective of managers to reduce risk challenges the alignment hypothesis. Indeed, managerial ownership leads, on the contrary, to a serious misalignment. Our research is thus in line with the findings of May (1995), who establishes a positive link between the share of the manager’s wealth invested in the firm and the level of diversification. Conversely, we do not confirm the negative link between managerial ownership and diversification found by Denis *et al.* (1997) and Goranova *et al.* (2007), at least for their cross-section study. Additionally, it is worth noting that if managers and outside blockholders have opposite expectations regarding related and unrelated diversification, both are neutral *vis-à-vis* total diversification. This shows the value of this type of study and, as has already been demonstrated by Lane *et al.* (1998), that of considering the types of diversification by including the level of synergies. Taking too global a view of diversification can indeed lead to erroneous results. Finally, our study presents three main limitations and suggests some avenues for future research. First, our work was carried out on the French market, which presents highly specific ownership structures and a very particular profile of top managers. In our study, large outside owners hold, on average, 14.53% of the firm’s capital, compared to 9.91% in the study carried out by Lane *et al.* (1998) and 11.44% in that of Goranova *et al.* (2007). On the other hand, the social and educational background of French managers is very homogeneous (Bauer & Bertin-Mourot, 1995; Carminatti-Marchand & Paquerot, 2004). Thus it could be interesting to conduct comparative studies in order to consider the influence of investors’ and firms’ nationalities on the relationship between ownership structures and diversification strategies.

Second, we did not test the effect of stock options granted to executives on their behavior in terms of corporate diversification. Indeed, where alignment is concerned, different methods do exist, mainly stock ownership by managers and stock options. In our study, like in most previous studies in strategy, we considered stock ownership alone. As argued by Zhang *et al.* (2008:245), "Compared to stock options, stock ownership has a more direct effect on executives' current wealth, because executives actually own the stocks in the most real sense. This ownership means that the executives benefit along with shareholders when stock prices rise but they also stand to suffer immediate losses in their actual wealth if stock prices decline". Nevertheless, it could be valuable to replicate this research taking integrating stock options granted to managers.

Third, our study is cross-sectional in nature and does not account for any time lags between cause and effect. The study of Goranova *et al.* (2007), meanwhile, shows that the results observed in cross-sectional and longitudinal analyses are not necessarily identical. Finally, one of the results of our two cluster analyses indicates that when both managers and shareholders hold a large share of the capital, companies seem to favor specialization strategies. This is an intriguing finding that should be further developed in future research, as much from a theoretical as from an empirical point of view.

CONCLUSION

The objective of this research was to evaluate the impact of two levers generally used to reduce agency conflict between shareholders and managers: monitoring by blockholders and the alignment of shareholders' and managers' interests through stock ownership by managers. This study, which was conducted on a sample of large French companies, shows first that ownership structure, whilst unable to explain total diversification, seems at least to influence related and unrelated diversification. Second, whilst the effects of monitoring seem to work well, an increase in managerial ownership is far from leading to alignment, and instead results in managerial behavior that goes increasingly against shareholders' interests. Indeed, managers' shareholdings can make them more risk-averse and encourage them to engage in unrelated diversification. This finding may be useful to guide boards to build systems of remuneration and control mechanisms which can align managers' behaviors towards risk on shareholders' interests. Our study finally raises an additional key question: how can global firms adapt their incentive systems to local contexts, taking into account the potential differences in managers' sensitivity to the incentive mechanism? We believe that future research should consider this specific dimension by integrating the influence of the managers' nationality.

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REFERENCES

- Aggarwal, R. K., & Samwick, A. A. (2003). Why do managers diversify their firms? Agency reconsidered. *The Journal of Finance*, 58(1), 71-118.
- Amihud, Y., & Lev, B. (1981). Risk reduction as a managerial motive for conglomerate mergers. *The Bell Journal of Economics*, 12, 605-617.
- Amihud, Y., & Lev, B. (1999). Does corporate ownership structure affect its strategy towards diversification?. *Strategic Management Journal*, 20, 1063-1069.
- Barnhart, S. W., & Rosenstein, S. (1998). Board composition, managerial ownership, and firm performance: An empirical analysis. *The Financial Review*, 33, 1-16.
- Bauer, M., & Bertin-Mouroto, B. (1995). *L'accès au sommet des grandes entreprises françaises 1985-1994*. Paris: CNRS/Boyden.
- Berger, P. G., & Ofek, E. (1995). Diversification's effect on firm value. *Journal of Financial Economics*, 37(1), 39-65.
- Berle, A. A., & Means, G. (1932). *The modern corporation and private property*. New York: MacMillan 2nd edition (1956).
- Bethel, J. E., & Liebeskind, J. (1993). The effects of ownership structure on corporate restructuring. *Strategic Management Journal*, 14, 15-31.
- Carminatti-Marchand, G., & Paquerot, M. (2004). The composition of French board of directors: Changes since 1995. *Corporate Ownership and Control*, 1(3), 116-126.
- Chen, S. S., & Wai Ho, K. (2000). Corporate diversification, ownership structure, and firm value. The Singapore evidence. *International Review of Financial Analysis*, 9, 315-326.
- Comment, R., & Jarrell, G. A. (1995). Corporate focus and stock returns. *Journal of Financial Economics*, 37(1), 67-87.
- Denis, D. J., Denis, D. K., & Sarin, A. (1997). Agency problems, equity ownership and corporate diversification. *Journal of Finance*, 52, 135-160.
- Denis, D. J., Denis, D. K., & Sarin, A. (1999). Agency theory and the influence of equity ownership structure on corporate diversification strategies. *Strategic Management Journal*, 20, 1071-1076.
- Fama, E. F. (1980). Agency problems and the theory of the firm. *Journal of Political Economy*, April, 288-307.
- Fama, E. F., & Jensen, M. (1983). Separation of ownership and control. *Journal of Law and Economics*, 26, 301-325.
- Glassman, C., & Rhodes, C. A. (1980). Owner vs. manager control effects on bank performance. *Review of Economics and Statistics*, 62(2), 263-270.
- Gomez-Mejia, L. R., Tosi, H. L., & Hinkin, T. J. (1987). Managerial control, performance and executive compensation. *Academy of Management Journal*, 30, 51-70.
- Goranova, M., Brandes, P., & Dharwadkar, R. (2007). Managerial ownership and corporate diversification: A longitudinal examination. *Strategic Management Journal*, 28, 211-225.
- Grant, R. M., Jammie, A. P., & Thomas, H. (1988). Diversity, diversification, and profitability among British manufacturing, 1972-84. *Academy of Management Journal*, 31, 771-801.
- Hawley, J. P., & Williams, A. T. (2000). *The rise of fiduciary capitalism. How institutional investors can make corporate America more democratic*. Philadelphia: University of Pennsylvania Press.
- Jensen, M. C. (1986). Agency costs of free cash-flow, corporate finance and takeovers. *American Economic Review*, 76, 323-329.

- Jensen, M. C., & Meckling, W. H. (1976).
Theory of the firm: Managerial behaviour, agency costs and ownership structure. *Journal of Financial Economics*, 3, 305-360..
- Jensen, M. C., & Murphy, K. J. (1990).
Performance pay and top management incentives. *Journal of Political Economy*, 98, 225-264.
- Kahneman, D., & Tversky, A. (1979).
Prospect Theory: An analysis of decision under risk. *Econometrica*, 47(2), 263-291.
- Kumar, M. V. (2009).
The relationship between product and international diversification: The effects of short-run constraints and endogeneity. *Strategic Management Journal*, 30, 99-116.
- Lacoste, D., Lavigne, S., Rigamonti, E. (2009).
Les investisseurs institutionnels influencent-ils les stratégies ? *Revue Française de Gestion*, 35(197), 35-48.
- Lane, P. J., Cannella, A. A., & Lubatkin, M. H. (1998).
Agency problems as antecedents to unrelated mergers and diversification: Amihud and Lev reconsidered. *Strategic Management Journal*, 19, 555-578.
- Lane, P. J., Cannella, A. A., & Lubatkin, M. H. (1999).
Ownership structure and corporate strategy: One question viewed from two different worlds. *Strategic Management Journal*, 20, 1077-1086.
- Lang, L. H. P., & Stulz, R. M. (1994).
Tobin's q corporate diversification, and firm performance. *Journal of Political Economy*, 102, 1248-1280.
- La Porta, R., Lopez-de-Silanes, F., Shleifer, A., & Vishny, R. W. (2000).
Investor protection and corporate governance. *Journal of Financial Economics*, 58(1/2), 3-27.
- March, J. G., & Shapira, Z. (1987).
Managerial perspectives on risk and risk taking. *Management Science*, 33, 1404-1418.
- Martin, J. D., & Sayrak, A. (2003).
Corporate diversification and shareholder value: A survey of recent literature. *Journal of Corporate Finance*, 9, 37-57.
- May, D. O. (1995).
Do managerial motives influence firm risk reduction strategies? *The Journal of Finance*, 50, 1291-1308.
- McConnel, J. J., & Servaes, H. (1990).
Additional evidence on equity ownership and corporate value. *Journal of Financial Economics*, 27, 595-612.
- McConnel, J. J., & Servaes, H. (1995).
Equity ownership and the two faces of debt. *Journal of Financial Economics*, 39, 131-157.
- Miller, K. D., & Leiblein, M. J. (1996).
Corporate risk-return relations: Returns variability versus downside risk. *Academy of Management Journal*, 39(1), 91-122.
- Morck, R., Shleifer, A., & Vishny, R. W. (1988).
Management ownership and market valuation. An empirical analysis. *Journal of Financial Economics*, 20, 293-315.
- Pablo, A. L. (1999).
Managerial risk interpretations: Does industry make a difference? *Journal of Managerial Psychology*, 14(2), 92-108.
- Palich, L. E., Cardinal, L. B., & Miller, C. C. (2000).
Curvilinearity in the diversification-performance linkage: An examination of over three decades of research. *Strategic Management Journal*, 21, 155-174.
- Porter, M. E. (1980).
Competitive strategy. New-York: Free Press.
- Ramaswamy, K., Li, M., & Veliyath, R. (2002).
Variations in ownership behaviour and propensity to diversify: A study of the Indian Corporate Context. *Strategic Management Journal*, 23, 345-358.
- Séverin, E. (2001).
Ownership structure and the performance of firms: Evidence from France. *European Journal of Economic and Social Systems*, 15(2), 85-107.

- Sharpe, W. F. (1964).
Capital asset prices: A theory of market equilibrium under conditions of risk. *Journal of Finance*, 19, 425-442.

- Shleifer, A., & Vishny, R. (1986).
Large shareholders and corporate. *The Journal of Political Economy*, 94, 461-488.

- Shleifer, A., & Vishny, R. (1989).
Managerial entrenchment: The case of manager-specific investments. *Journal of Financial Economics*, 25, 123-139.

- Short, H. (1994).
Ownership, control, financial structure and the performance of firms. *Journal of Economic Survey*, 8, 203-247.

- Short, H., & Keasey, K. (1999).
Managerial ownership and the performance of firms: Evidence from the UK. *Journal of Corporate Finance*, 5(1), 79-101.

- Stulz, R.M. (1990).
Managerial discretion and optimal financing policies. *Journal of Financial Economics*, 26, 3-27.

- Tversky, A., & Kahneman, D. (1991).
Loss aversion in riskless choice: A reference-dependent model. Quarterly Journal of Economics, November, 1039-1061.

- Wiseman, R. M., & Gomez-Mejia, L. R. (1998).
A behavioural agency model of managerial risk taking. *Academy of Management Review*, 23(1), 133-153.

- Wright, P., Kroll, M., Lado, A., & Van Ness, B. (2002).
The structure of ownership and corporate acquisition strategies. *Strategic Management Journal*, 23, 41-55.

- Wright, P., Ferris, S. P., Sarin, A., & Awasthi, V. (2002).
Impact of corporate insider, blockholder and institutional equity ownership on firm risk taking. *Academy of Management Journal*, 39, 441-463.

- Zhang, X., Bartol, K. M., Smith, K. G., Pfarrer, M. D., & Khanin, D. M. (2008).
CEOs on the edge: Earnings manipulation and stock-based incentive misalignment. *Academy of Management Journal*, 51, 241-258.

APPENDIX 1: Different perspectives on ownership structure and diversification

Authors	Sample	Variables	Methods	Main focus and results	Relative positioning of the present study
Amihud & Lev (1981)	309 firms (from Fortune's 500 largest industrial US firms). Acquisitions carried out over the period 1961-1970.	Control: strong owner control, weak owner control, management control. Diversification: horizontal, vertical and conglomerate mergers.	Regression analysis: propensity to engage in mergers and to diversify according to the type of control.	Influence of monitoring by blockholders on corporate diversification. "Manager-controlled" firms engage in more conglomerate acquisitions than "owner-controlled" firms. "Manager-controlled" firms diversify more than "owner-controlled" firms.	Test of both monitoring and alignment. Distinction between insiders and outsiders. In this research, product extension and market extension are considered as related diversification strategies. Introduction of a new diversification measure: "remoteness diversification ratio".
Denis, Denis and Sarin (1997)	933 US firms (all industries except financial services). Data: 1984, 1986, 1992.	Control: equity ownership of officers, directors and outside blockholders. Blockholders owns 5% or more of the outstanding shares. Diversification: number of segments, number of SIC codes, Herfindal index.	Cross-sectional regressions relating the measures of diversification to the equity ownership of officers, directors and blockholders.	Influence of both monitoring and alignment on corporate diversification. Strong negative correlation between the level of diversification and equity ownership of officers, directors and outside blockholders.	Distinction between related and unrelated diversification. Introduction of a new diversification measure: "remoteness diversification ratio".
Lane, Canella and Lubatkin (1998)	Study 1: same sample as Amihud & Lev, 1981 Study 2: 289 large mergers (1980-1987).	Control: same as Amihud & Lev (conglomerate mergers are split into product extension and pure conglomerate mergers). Blockholders own 5% or more of the outstanding shares. Diversification: same as Amihud & Lev, 1981 and Rumelt's (1974) diversification measures.	Study 1: same as Amihud & Lev (1981). Study 2 (regression analyses): dependant variables: merger type and diversification level. Independent variables: % of stocks held by large outside owners and board vigilance.	Influence of monitoring on corporate diversification. "Manager-controlled" firms do not engage in more conglomerate acquisitions than "owner-controlled" firms. "Manager-controlled" firms do not diversify more than "owner-controlled" firms.	Test of both monitoring and alignment. Consideration of the stake of capital held by officers. Introduction of a new diversification measure: "remoteness diversification ratio".
Goranova, Alessandri, Brandes and Dharwadkar (2007)	961 firm-year observations from S&P 500. Data: 1994-1999.	Control: executive ownership (% of shares owned by the CEO). Diversification: Herfindal and entropy diversification indices. Split of diversification into related and unrelated diversification.	Regression analyses. Influence of ownership structure on subsequent changes in diversification. Influence of diversification on subsequent changes in managerial ownership.	Influence of alignment mechanisms on corporate diversification. Cross-sectional analysis: negative managerial ownership-diversification linkage. Longitudinal tests: levels of ownership do not influence subsequent changes in diversification. Corporate diversification levels are associated with subsequent changes in managerial ownership.	Test of both monitoring and alignment. Consideration of outside blockholders. Introduction of a new diversification measure: "remoteness diversification ratio".

<p>Ramaswamy, Li and Veliyath (2002)</p>	<p>88 manufacturing Indian firms (1993-1994).</p>	<p>Control: proportion of equity held by different groups of investors (government, financial institutions, banks, foreign corporate, mutual funds). Diversification: Herfindal index and entropy approach. Separation of diversification into related and unrelated diversification.</p>	<p>Multiple linear regressions. Dependant variable: diversification indices. Independent variables: % of shares held by the different categories of shareholders.</p>	<p>Influence of monitoring by different groups of shareholders on corporate diversification. Ownership variables explain unrelated diversification better than related or total diversification. Banks are positively associated with unrelated diversification. Mutual funds and financial institutions negatively influence the level of unrelated diversification. Governmental agencies and foreign ownership are not significantly related to any of the measures of diversification.</p>	<p>Test of both monitoring and alignment. Consideration of the stake held by officers and directors. Introduction of a new diversification measure "remoteness diversification ratio".</p>
<p>Lacoste, Lavigne and Rigamonti (2009)</p>	<p>124 firm-year observations. Top French companies (2004-2006).</p>	<p>Control: % of shares held by officers and outside blockholders. Blockholders own more than 5% stakes in a company. Diversification: related, unrelated, total (Rumelt, 1974). Diversification "remoteness ratio".</p>	<p>Regression analyses. Cluster analyses.</p>	<p>Influence of both monitoring and alignment mechanisms on corporate diversification. The percentage of stock owned by outside blockholders has a negative influence on unrelated diversification. The percentage of stocks owned by officers has a positive effect on unrelated diversification.</p>	