

MANAGING DIVERSIFICATION: AN EMERGING MARKET PERSPECTIVE

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***Abstract:** In the last two decades or so, two central questions have been driving research on business groups in emerging markets – whether diversification by business groups creates or destroys value and whether firms affiliated to a business group benefit or lose from group affiliation? This paper argues that one of the major reasons behind the controversy surrounding the above issues is that some extraneous factors moderating the relationships have not been suitably controlled for. Findings in this research domain therefore remain fragmented and inconclusive. The paper identifies 'strategic fit' with 'dominant logic' of the top management as one such crucial variable. It further develops several testable hypotheses to capture the influence of dominant logic in the process of value creation of business groups and affiliated firms and empirically verifies the same using panel data analysis.*

Key Words: Business Group, Dominant Logic, Diversity, Emerging Market, Strategic Fit.

LITERATURE REVIEW

Developed Markets

The literature on diversification and performance draws upon a rich tradition comprising more than four decades of extensive research. The earliest streams of thought having its origin in I/O Economics follows the exhaustive work of Gort (1962) that spawned decades of future research. The basic premise of this stream was that diversification and performance are linearly and positively related. This position rests upon several assumptions, including those derived from market power theory and internal market efficiency among others (Scherer, 1980; Grant, 1998; McCutcheon, 1991). The early literature on diversification asserts that diversified firms can employ a number of mechanisms to create and exploit market power advantages that are largely unavailable to their more focused counterparts (Sobel, 1984; Caves, 1991).

In the second stream of thought, researchers lend credence to the fact that diversification and performance are linearly and negatively related. Jensen (1996) has argued that top management of diversified firms may be inclined to invest surplus cash flows (i.e. cash flow exceeding what is required to fund all positive net present value investments in its present operations) in ways that support organizational inefficiencies. In other words, managers may be drawn to over-invest in undeserving projects (Bolton and Scharfstein, 1990; Stulz, 1990; Berger and Ofek, 1995). This finding draws support from the 'Agency Theory' which stipulates that managers' and owners' motives tend to pull in opposite directions.

In the third stream of thought, researchers have proposed a curvilinear relationship between diversification and performance. According to this view, moderately diversified firms perform better than their low diversified counterparts. Lubatkin and Chatterjee (1994) observed that single-business firms do not have the opportunity to exploit between-unit synergies or the portfolio effects that are available only to diversified firms. In contrast, moderately diversified firms, involved in multiple businesses, are able to tap a common pool of resources (Lubatkin

and O'Neill, 1987; Nayyar, 1992); thus yielding advantages over a single-business firm. However, Markides and Williamson (1994) refer to this as 'exaggerated relatedness' suggesting a mirage effect when assessing apparent similarities between business units in terms of simple SIC Code. Thus, one can easily conclude that firms experience an optimal level of diversification (likely to vary from case to case), with performance decrements beyond this point of maximization (i.e. from moderate to high levels diversification).

A fourth stream of thought, which is basically an extension of earlier stream, advocates that effects of moderate and high levels of diversifications are somewhat equal in their impact on performance. Highly diversified firms can also do more to reduce industry specific risks and probabilities of bankruptcy and also lead to enhanced debt (i.e. co-insurance effect) carrying capacity (Barney, 1997; Seth, 1990). Thus, one can easily conclude that firms do experience an optimal level of diversification; however, performance effects will become constant beyond the point of maximization. Therefore, this school of thought differs in its predictions of the performance trend as firms move from moderate to high levels of diversification. Findings drawn from the developed markets in this research domain are therefore full of dichotomies (Palich et al. 2000).

Business Groups and Emerging Markets

Khanna and Palepu (1997) argued that conglomerates in the developed markets take for granted a range of institutions that support their business activities, but many of these institutions are absent or underdeveloped in most emerging markets. Also, transaction costs in emerging markets are comparatively higher. In contrast, conglomerates in the West can do business at an arm's length. It is these differences in institutional context that explain the motivation behind high levels of diversifications pursued by business groups and their association with positive performance effects. Existing literature argues that groups can fill some subset of the institutional voids characterized in most emerging markets. Indeed, the literature on groups across several markets emphasizes an impressive array of benefits that arise out of the intermediation function played by groups in capital markets (Leff, 1976; Pan, 1991) and labor markets (Leff, 1978). Therefore, this school of thought challenged the most dominant belief that conglomerates fail to perform (Khanna and Palepu, 2000; Khanna and Rivkin, 2001), and questioned the wisdom that firms need to restructure their businesses around their core competencies (Prahalad and Hamel, 1990).

Some recent studies suggested that investments by business groups in emerging markets are largely characterized by fixed costs (Khanna and Palepu, 1997; Khanna, Palepu and Wu, 1998). Every business group needs to invest in creating a coordinating mechanism (Gerlach, 1992; Lincoln et al., 1996) that facilitates the sharing of information and the enforcement of explicit and implicit intra-group contracts. Therefore, in the initial stages, fixed costs outweigh the benefits of diversification; but once a threshold level is breached, the benefits start outweighing the costs. It follows that, groups that exceed the threshold diversification levels will undertake such investments. Khanna and Palepu (2000) concluded that net performance effects of diversification will initially decline, till it reaches a threshold. Beyond this threshold, marginal increases in group diversification will yield marginal increases in performance. They further observed that the threshold level will itself rise as market institutions evolve over time and hence performance effects of such high diversification will gradually become difficult to achieve.

Another area of interest among researchers concerns the ramification of group affiliation in enhancing firm performance (Khanna and Rivkin, 2001). Several prominent economists and sociologists have emphasized that institutions affect economic outcomes (Granovetter, 1984; Williamson, 1975; North, 1990). In the developed markets, which is characterised by efficient market intermediation, it is less likely that a firm will benefit by being associated with a conglomerate that is diversified across a number of businesses than in the case of a firm with such an association in an economy with severe market imperfections (Hoskisson and Hitt, 1990). Khanna and Palepu (2000) mentioned that after group diversification was controlled for, group affiliation would be associated with positive firm performance. Further, performance effects of group affiliation were found to decrease as market institutions evolved over time. Khanna and Palepu (1997) observed that as free markets emerge, the ability of business groups to enhance performance by circumventing market failure would gradually subside. Therefore, business groups as an institution will slowly atrophy over time; making way for independently managed single business firms.

RESEARCH GAP

Interestingly, studies dedicated in the Indian context have either negated or contradicted the above assertions. Mohanty (2000) observed that low to medium diversified business groups have outperformed highly diversified ones and group affiliation has failed to add value in India, a giant emerging market. They even asserted that the value of a business group can be enhanced, provided they are split into individual and independent business units devoid of centralized group control. Kakani (2000) found that group diversification was negatively related to performance during the 90's, a period when economic liberalization had just taken effect. The study also highlighted that net benefits of high levels of diversification (if any) would decline over time. The study further contended that the market imperfection theory has been blown out of proportion; and business groups are value destroyers in emerging markets too. Since the theory of market imperfection is quite comprehensive and tested, existing justifications do not stand the test of time. I feel stronger and robust theory is needed to counter the same, irrespective of the empirical outcomes.

One way of explaining the above contradictions is that as emerging markets mature the ability of business groups to enhance performance by circumventing market failure will gradually sublime (Khanna and Palepu, 2000). This possibility was also indicated by Chang and Hong (2000), who argued that the value business groups add, may be contingent on the time period of study. They were of the opinion that different stages of economic liberalization may alter the optimal mix of business portfolio in which a group should engage. In contrast, Khanna and Rivkin (2001) have observed that positive group effects are still associated with emerging markets (e.g. China, Korea, Chile) which have been subjected to a longer tenure of economic liberalization compared to India. It is interesting to note that most of the above studies have common databases (i.e. CMIE) as well as substantial overlapping time-frames. Hence it is not clear why findings in the Indian context reveal a diverging trend. My insights from selected case studies across three prominent business groups in India have revealed that the relationship between diversification and performance may not be so simple, as it is brought out to be.

My insights revealed that while certain unrelated diversifications have been successful, some related diversifications have failed dramatically. Sometimes, consolidated performance of a business group does not reflect its true picture; windfall profits in one business segment may overshadow certain strategic failures. Also, a strong initial-resource position can impact the ability of business groups to survive a backlash. Further, affiliation to a business group has not

always added value for an individual firm. Therefore, the above empirical findings are fraught with contradictions, and have raised more doubts than providing clear answers. Coincidentally, most of the earlier studies took recourse to the logic of market imperfection, having its roots in I/O Economics to explain the diversification – performance linkage across emerging markets. The use of alternate or multiple theoretical lenses to explore factors that may have a bearing on the linkage has been lacking. I argue that a more plausible explanation behind the ambiguous results is that certain critical variables have been not suitably controlled for.

At the theoretical level, researchers often tend to ignore the effect of moderating variables either knowingly or unknowingly. I believe that the inherent bias of researchers in focusing primarily on sophisticated analytical methods, has often led them to overlook certain critical variables, since these variables cannot be measured easily nor are they amenable to statistical manipulation. Though some studies have tried to capture the effects of certain moderating variables, a holistic and integrated view has been lacking. I argue one such critical variable is 'dominant logic', introduced by Prahalad and Bettis (1986). If used judiciously, it can generate immensely powerful insights in explaining the linkage between diversification and performance as well as group affiliation. Though considered a milestone in strategic management research, subsequent use of the concept has been lying dormant. In fact, the literature has failed to develop, extend, apply and test its potentially interesting applications, and thereby, severely undermined the promise held by the concept. Thus, in the absence of reasonably consistent and interpretable findings a fresh enquiry on this domain is the need of the hour.

CONCEPTUAL FRAMEWORK

The highly deterministic view point of researchers having its origin in I/O Economics suggests that any corporate strategy be it diversification or otherwise, is primarily driven by external market conditions, leaving very little scope for strategic choice. A rich tradition in strategy literature suggests that there is sufficient scope for the top management in shaping the destiny of a business group (Child, 1972). The observation of Prahalad and Bettis (1995) that excessive importance was being attached to economic forces in research on performance implications and the effect of managerial forces was hardly getting due importance they deserve, is very much applicable to the current domain of research on business groups in emerging markets. How the managerial forces across business groups have contributed towards performance differences has hardly been paid due attention.

The organizational context made of past strategies, capabilities, structure, and commitment plays a dominating role in shaping its future strategies (Ghemawat, 1991; Hill, 1994). It is also evident that strategy implementation plays an important role in explaining performance differences (Wernerfelt and Montgomery, 1986). Moreover, the important influence of 'experience' with previous diversification efforts cannot also be ignored (Bane and Neubauer, 1981). I view the top management of a diversified business group as a collection of key individuals (i.e. dominant coalition) having significant power to override the context and influence the way a group is managed and affiliated firms perform. The quality of management is as critical in explaining differences in performance as any other factor (Bettis, Hall and Prahalad, 1978). Further, the benefits of diversification are not automatically realized, the active involvement and participation of the top management is essential to realize these benefits (Prahalad and Bettis, 1986; Ghemawat, 1991). It is apparent that affiliation to a business group and pattern of diversification will not necessarily lead to superior performance. There are some moderating factors that need to be controlled for.

There is a cognitive school of thought that ascribes the success of some highly diversified business groups to the superior skills of the top management (Prahalad and Bettis, 1986). The particular skill, which they identify, is the ability of the top management to conceptualize the top management task. They held that different top managements have different 'dominant logic(s)', i.e. different patterns to conceptualize. According to their view, it takes a highly skilled top management to conceptualize highly variegated businesses, and hence is the reason for the success of some highly diversified groups. Dominant logic takes shape through the critical experiences of the top management; and these experiences are likely to be of historical ones rather than current ones. Critical experiences are closely related to the organization's self-definition and self-reconstruction. These experiences reflect the open-endedness of organizational life, the existence of alternative ways of thinking, responding and changing (Ghemawat, 1991).

Dominant logic can be defined as the way in which the top management conceptualizes its various businesses and makes critical resource allocation decisions. To put it more simply, it can be perceived as a set of *working rules* (similar to thumb rules) that enables the top management to decide *what can be done* and more importantly *what cannot be done*. It also enables the top management in conceiving, implementing and controlling its strategies. This linkage consists of mental maps developed by the top management through its experiences in the core business and sometimes applied inappropriately in other businesses as well. In other words, the top management usually decides on the basis of *what worked before*, and not on the basis of a best strategy or optimizing procedure. Hence considered more broadly, it can be perceived as both a knowledge structure and a set of elicited management processes. The top management of a diversified group has a significant influence on the ways its member firms are managed. It influences to a large extent the style and process of management, and as a result the key resource allocation choices (Donaldson and Lorsch, 1983). Thus strategic choices of the top management are processed through pre-existing knowledge systems, also known as 'schemas', where such dominant logics are stored (Norman, 1976).

Schemas permit managers to categorize an event, assess its consequences, and consider appropriate actions (including doing nothing). These systems develop over time, based on the personal experiences of the top management. They represent its beliefs, theories, biases and propositions, which have a significant bearing on the strategic choices (including diversification) facing business groups. Without schemas the top management of a diversified group would become paralyzed by the need to analyze scientifically an enormous number of ambiguous and complex situations. The selection of environmental elements to be scanned is also influenced by the top management's schemas. For the present purpose the schema concept is introduced as a mental structure that can store, process and retrieve a shared dominant logic. The characteristics of the core business, often the source of dominant logic of the top management, tend to cause them to define problems in certain ways and develop familiarity with, and facilitate in the use of, those administrative tools that are particularly useful in accomplishing the critical tasks of the core business (Prahalad and Bettis, 1986).

HYPOTHESES DEVELOPMENT

I argue that if choice of diversification of an affiliated firm is aligned with the dominant logic of the group, performance is likely to be enhanced. Logic behind this inference can be drawn from multiple theoretical lenses. One of the major implications behind this argument is that the top management is less likely to respond appropriately to businesses, where the dominant logic is

different. It is less likely to respond quickly enough as well, as they may be unable to interpret the information surrounding unfamiliar environment (Prahalad and Bettis, 1986). All this implies hidden costs, which indirectly has a negative bearing on performance. Second, businesses aligned with group dominant logic facilitates better implementation of strategies as it provides strategic as well as operational control of the top management over its diversified businesses (Ghemawat, 1991). Third, an aligned dominant logic ensures unlearning and learning of new skills and practices required in a fast changing business environment, evident in most emerging markets (Das, 1981). Fourth, it implies commitment of the top management, which offers a generalized form of explanation for sustained differences in performance across firms (Ghemawat, 1991). Fifth, it facilitates the systematic development of certain complex resources, which are the primary sources of competitive advantage across different markets (Selznick, 1957; Prahalad and Hamel, 1990). Sixth, it results in the reinforcement of 'fit' among its entire system of activities. This 'fit' leads to a sustainable competitive advantage and is far more superior to 'fit' based on resources (Porter, 1986).

The logic is that affiliation to a business group is more advantageous for a firm that has dominant logic that is similar to the dominant logic of the business group. In such contexts, affiliated firms are likely to diversify into businesses and adopt strategies that have a greater degree of 'strategic fit' with the dominant logic of the business group. In other words, firms affiliated to a business group that have a greater degree of 'strategic fit' with the dominant logic of the group would out-perform the industry benchmark and firms that have poorer 'strategic fit' would under-perform the industry benchmark. Further, the extent of affiliated firms with greater degree of 'strategic fit' with the dominant logic of the business group will lead to enhanced performance of the group as whole. Therefore, the central contention of our research is that as long as choice of diversification (irrespective of whether it is high or low) is aligned with the dominant logic of the business group, performance of the firm as well as the group will be enhanced. I also argue that the extent of 'strategic fit' will also positively moderate the relationship between diversification and performance of business groups. Hence, I hypothesize that:

Hypothesis 1: The greater is the 'strategic fit' of an affiliated firm with the group dominant logic, better will be the performance of the affiliated firm.

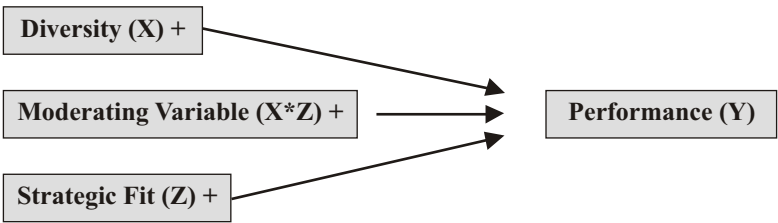
Hypothesis 2: The greater is the dominance of affiliated firms having higher 'strategic fit' with the dominant logic of the business group, the better will be the performance of the business group.

Hypothesis 3: The greater is the dominance of affiliated firms having higher 'strategic fit' with the dominant logic of the business group, the stronger will be the relationship between diversification and performance of the business group.

The following diagram represents the conceptual framework capturing the above hypotheses. In a formal relationship Z is a moderator if the relationship between two (or more) variables, say X and Y, is a function of the level of Z. According to my hypotheses the independent variables X and Z, and moderating variable ($X*Z$) are all likely to have positive bearing on the dependent variable Y.

The following is the mathematical representation - $Y = f_x(X, Z, X*Z)$

Figure 1: Proposed Research Model



METHODOLOGY

Historical and longitudinal case studies are ideal for exploring the dynamics present within a single contextual setting (Eisenhardt, 1989). Empirical studies based on large samples have inherent limitations in gaining insights and having an intellectual grip into the finer grained relationships between a given construct and behavior or outcomes within or by a firm. As a result they often tend to miss out on critical insights. In contrast, small sample studies facilitate the researcher to untangle the complex web of factors and make cautious generalizations across clearly defined contexts. Hence my opinion is that, the present epistemological context demands the adoption of clinical research. In such situations, a combination of in-depth case studies backed by panel data analysis is likely to yield better results. Besides, it is very difficult to capture the dynamics involving cognitive concepts like dominant logic and diversification without going into the intricate details of the ways and functioning of a business group. For example, two business groups may have the same quantitative 'diversity' score (a measure of nature and extent of diversification), but may actually constitute two entirely different set of businesses. Also the diversity of a business group may be status quo over time, but its mix of business portfolio may have changed dramatically. This observation is critical to our research question.

Sample Selection and Data Collection

Our sample consists of the three large business groups in India (i.e. Tata, Aditya Birla and Reliance Group). I would like to mention here that the choice of the above three groups were not based on random selection or serendipity. They are notably among the largest and high performing groups operating in India and are widely covered in the media. Also, given their size, they together account for about 10 per cent of the country's GDP. The sheer ubiquity of business groups suggests that they may affect, in important ways, the economic performance in most emerging markets (Khanna and Rivkin, 2001). Economic liberalization of a number of emerging markets around the world in the last few decades and major collapses in a few economies dominated by business groups have drawn research attention on the ways and functioning of business groups (Peng and Delois, 2006). Moreover, these three groups were present in the sample studied by all previous researchers who reported contradictory findings (discussed earlier).

I initially developed in-depth case studies across the three groups, tracking their evolution, with focus on changes in business portfolio, its countermanding strategies and impact on

performance. To gauge the dominant logic (the antecedent of a strategy) of the business groups, I was guided primarily by top management interviews published in prominent business journals. I also relied on company annual reports, HBS cases, official websites and important press clippings. To supplement the case studies, I used panel data analysis to determine simple bi-variate and multi-variate relationships. For this, I relied on CMIE database for quantitative data pertaining to the period 1990-2003, which is considered a standard and reliable data source for firm level research in India (Khanna and Rivkin, 2001). Classification of firms in CMIE is also considered quite reliable as it uses a wide variety of independent sources to classify firms into business groups. The same were cross-checked for their consistency from official company websites and no contradictions were observed. It should be mentioned here that information relating to certain unlisted closely held firms were not available, hence could not be included in the study. However, such omissions are likely to have insignificant bearing on our findings as in all the three cases they accounted for less than 10 per cent of group revenues or profits. All statistical analyses were done using SPSS.

Operationalisation and Measurement of Constructs

It appears that one of the key reasons empirical researchers have maintained a clear distance from the concept of dominant logic is because of the mysterious way in which it was explained, thus making its operationalization difficult. Hence, a simplified definition of dominant logic, grounded in reality, may render a wider applicability. In my interactions with the top management of various business groups, I observed that dominant logic operates in reality through, *“a set of simplified decision rules, more in the manner of heuristics, on how to run a business and allocate resources, based on the belief about what works and does not work”*. These thumb rules lie at the cognitive level, in the minds of the top management or the dominant coalition and virtually affect every strategic choice, and not only choice of diversification strategy. In family based business groups, dominant logic of the group head influences the dominant logic of the affiliated firms. Sufficient precautionary measures were also taken, for an accurate assessment and estimation of 'strategic fit' between the dominant logic of the group and individual businesses under its portfolio.

I acknowledge that assessment and measurement is complicated by the cognitive nature of the construct. Further, complication arises from the fact that researchers have pointed out the difference between 'espoused theories' and 'theories in use,' because stated policies and intentions often vary from what is actually used (Argyris and Schon, 1974). They are of the opinion that top management perceptions and beliefs cannot be simply obtained by asking for them. Creative questionnaires and simulation exercises can elicit the true nature of these constructs. Policy capturing methodology as suggested by Slovic, Fischhoff and Lichtenstein (1977) also seems to be a powerful approach in this regard. However, one would appreciate the unwillingness of top managers in emerging markets to share strategic information due to lack of transparency and corporate governance. Given the above constraints, I adopted the most suitable alternative approach, i.e. longitudinal analysis.

I identified the dominant logics of the business groups in our study through in-depth scanning of their major resource allocation decisions. Next, I tried to match these dominant logics with the business model and strategy adopted by the affiliated firm. I used a three-factor scale to assess the 'strategic fit'. I assigned a value of 3 (high fit) if the business model and strategy adopted at the firm level were perfectly aligned with the dominant logic of the business group; a value of 2 (medium fit) if the business model and strategy adopted at the firm level were somewhat aligned with the dominant logic of the business group; and a value of 1 (low fit) if the business model and strategy adopted at the firm level were not aligned with the dominant logic

of the business group. This by and large attempted to measure 'strategic fit' at the firm level.

I observed that certain businesses (e.g. TCS) which were not earlier aligned with the dominant logic of the top management, subsequently aligned very well, because of a change in the top management. Further, certain firm businesses which were earlier not aligned with the dominant logic of the top management, subsequently aligned very well, because of industries evolving during the course of economic liberalization (e.g. Reliance Telecom). This made the businesses subsequently attractive. Strategic fit may as well deteriorate over time due to changing mix of business portfolio (e.g. Tata Motors). As a result of this exercise three categories of affiliated firms were identified based on their 'strategic fit' with the dominant logic of the top management. Subsequently, the documented data was tested for their inter-rater reliability. The inter-rater reliability was remarkably high out of closely 300 cases, except for a few cases; the independent content analyses yielded more or less the same outcome. The final outcomes were then discussed with a few top executives at the group head-quarters for each business group and suitable modifications were made wherever logical discrepancies were pointed out.

At the group level a 'strategic fit' index was constructed for each year to analyze its effect as a moderating variable on the diversification – performance relationship. The index for a particular business group was calculated based on two parameters – sales and capital employed. In other words, I computed two year-wise fit indices for a business group capturing the extent of 'strategic fit' of the business portfolio with the dominant logic of the business group in a given year. If more firms in the business groups' portfolio have a high 'strategic fit' with the dominant logic of the business group, the group acquired a high index value and vice-versa. The 'strategic fit index' was computed as follows –

$$a) \text{ Fit Index}_1 (\text{Year}_n) = \frac{\Sigma(\text{F-Sales}, f_1)*1 + \Sigma(\text{F-Sales}, f_2)*2 + \Sigma(\text{F-Sales}, f_3)*3}{\Sigma(\text{Group Sales})*6}$$

$$b) \text{ Fit Index}_2 (\text{Year}_n) = \frac{\Sigma(\text{F-C Emp}, f_1)*1 + \Sigma(\text{F-C Emp}, f_2)*2 + \Sigma(\text{F-C Emp}, f_3)*3}{\Sigma(\text{Group Cap Emp})*6}$$

where, f_1 = low fit

and f_2 = medium fit

and f_3 = high fit, and F-Sales = firm sales and F-C Emp = firm capital employed

I used the following firm performance measures, which are widely used in strategy research. They were measured relative to industry average (Shrader, 2001). They comprise the following

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$$a) \text{ ROS} = \text{PAT} / \text{Sales}$$

$$b) \text{ ROCE} = (\text{PAT} + \text{Int Payments} + \text{Tax Provisions}) / (\text{Net worth} + \text{Borrowings})$$

$$c) \text{ Tobin's Q} = (\text{Market Capitalization} + \text{Borrowings}) / (\text{Net Fixed Assets})$$

I used the following two measures of diversity, to capture the nature and extent of diversification of a business group. The Herfindahl Index was proposed by Gort (1962), where the assigned weights W_i equals P_i . That is,

$$a) D = 1 - \sum P_i^2$$

The Concentric Index of Caves, Porter and Spence (1980), Wernerfelt and Montgomery (1988) has been widely used as well, where -

$$b) D = \sum_j W_{ij} \sum_l W_{il} d_{jl}$$

where d_{jl} is a weight whose value depends on the relations between j and l in SIC system.

FINDINGS & ANALYSIS

To test my first hypotheses, I carried out one-sample t-test of means, taking any two cases of firms or businesses at a time. I was interested in finding out whether differences in mean can be attributed to a specific cause (i.e. strategic fit) or purely due to chance. Since t-test is based on t-distribution, it is considered appropriate for testing the significance of difference between the means of two samples, in case of small sample(s) when population variance is not known (in which case I used the variance of the sample as an estimate of the population variance). Since the samples were also related, I also used paired t-test (i.e. test of differences) for judging the significance of the mean of differences between two samples. The results were synonymous. Of the total 272 cases; in 80 cases I observed a 'low fit', 'medium fit' in 114 cases and 'high fit' in 78 cases. The broad interpretation is that, in case of low 'strategic fit' the firm underperforms the industry benchmark and in case of a high 'strategic fit' the firm outperforms the industry benchmark. The same was found to hold good across all the three measures of performance,

Table 1
Results of t-test for Equality of Means for low, medium and high fit firms

Factor	No. of Cases	ROS (%)	ROCE (%)	Tobin's Q (*)
1) Low Fit (Mean)	80	-3.65	-1.39	-3.64
2) Medium Fit (Mean)	114	+2.48	+0.21	-2.43
3) High Fit (Mean)	78	+7.28	+2.59	+0.92
Total / Significance	272	***	*	N.S.

I also carried out one-way ANOVA for all three groups in our sample. No contradiction was observed with the above tests. However, I placed greater emphasis on the t-test results, because unlike ANOVA, it does not assume the equality of variances of sample and population. It checks for equality of variances first and then adjusts for the t-statistics accordingly.

Table 2
One way ANOVA results across firms (low, medium, and high) strategic fit

Variables	Groups' of firms based on strategic fit						F-ratio	F-prob
	Low fit		Medium fit		High fit			
ROS (%)	Cases	Mean	Cases	Mean	Cases	Mean		
	80	-4.27	114	3.46	78	7.14	17.60	0.00
ROCE (%)	80	-2.13	114	1.56	78	1.65	2.91	0.06

It was observed that Return on Sales (ROS) was significantly higher for firms with greater strategic fit in both the tests. The results were also unequivocal for Return on Capital Employed (ROCE). Results for Tobin's Q was not found to be significant, hence not reported. Perhaps the parameters used to measure Tobin's Q are not close proxies in the Indian context. The reason is that ICAI norms make it mandatory for firms to report business-wise sales, but not capital employed. Therefore, the above results unequivocally support my Hypotheses 1. This overwhelming support clearly suggests that firms with higher 'strategic fit' gain more from group affiliation than firms with lesser 'strategic fit'.

I tested Hypotheses 2 and 3 using random-effects generalized least squares panel estimation model with 14 year data (i.e. 1990-2003), modeling performance as function of diversity, strategic fit, and inter-action effects between diversity and strategic fit. I performed alternative tests using the measures of Herfindahl and Concentric Indices for diversity and sales and capital employed to assess 'strategic fit' Index. The results of the panel regression analysis are reported below –

Table 3
Results of panel estimation with ROS as dependent variable

Particulars	Model 1	Model 2	Model 3	Model 4
1) Herfindahl Diversity	+1.61 *** (6.89)		+0.81 *** (2.03)	
2) Concentric Diversity		+0.54 ** (0.59)		+0.62 *** (0.50)
3) Fit Index (Sales)	-0.70 ** (11.23)	-0.11 (9.55)		
4) Fit Index (Cap Employed)			-0.74 *** (6.77)	-0.73 *** (8.02)
5) HD * FS	+0.62 * (1.62)			
6) HD * FC			+0.84 *** (0.79)	
7) CD * FS		+0.02 (0.84)		
8) CD * FC				+0.59 *** (0.78)
9) Adjusted R2	0.28	0.15	0.44	0.31
10) Constant	48.17 (14.23)	15.75 (8.78)	37.66 (7.04)	34.80 (8.07)

where –

HD = Herfindahl Diversity, CD = Concentric Diversity,
FS = Strategic fit based on Sales, FC = Strategic fit based on Capital Employed
and HD * FS, HD * FC, CD * FS, CD * FC indicate their moderating effects.

Note: To facilitate the use of normalized data, the absolute values of diversity and strategic fit were converted to their respective z-scores to capture their moderating effects. Researchers also use natural log values for such normalization.

Table 4
Results of panel estimation with ROCE as dependent variable

Particulars	Model 1	Model 2	Model 3	Model 4
1) Herfindahl Diversity	+1.17 ** (4.59)		+0.14 (1.51)	
2) Concentric Diversity		+0.07 (0.36)		+ 0.05 (0.32)
3) Fit Index (Sales)	-0.35 (7.47)	-0.24 (5.89)		
4) Fit Index (Cap Employed)			-0.68 * (5.06)	-0.54 * (5.25)
5) HD * FS	+1.08 *** (.08)			
6) HD * FC			+0.68 *** (0.59)	
7) CD * FS		+0.52 ** (.52)		
8) CD * FC				+0.79 *** (0.52)
9) Adjusted R2	0.11	0.09	0.13	0.17
10) Constant	23.20 (9.47)	3.92 (5.41)	16.99 (5.26)	17.68 (5.29)

*Note: Heteroscedasticity-consistent standard errors were used to compute t-statistics, which are reported in parentheses. Standardized regression coefficients are reported, * = $p < .10$, ** = $p < .05$, *** = $p < .001$ (significance based on two-tailed tests).*

The interaction between strategic fit and diversity was consistently found to have a positive effect on group performance. When performance was taken as the dependent variable, strategic fit index (sales) and strategic fit index (capital employed) both entered the regression models as 'best' variables. A positive moderating effect in all the regression models supports my Hypothesis 3. A business group's performance is enhanced when more number of businesses, within the group's business portfolio, strategically fit with the dominant logic of the business group. Therefore, the central contention of this paper is that dominant logic positively moderates the relationship between diversity and performance of business groups. That the impact of diversity on performance improves with the dominance of businesses having higher 'strategic fit' with the group's dominant logic finds empirical support.

In contrast, 'strategic fit' was consistently found to have a negative effect on group performance, though not statistically significant. This is contrary to our Hypothesis 2. A fresh look into the case studies revealed that dominance of businesses with high 'strategic fit' independently contributed negatively to the groups' performance on all counts. Perhaps a high 'strategic fit' acts as a deterrent to business groups from entering attractive emerging businesses. Hence, the dominance of structurally less attractive businesses in a group's portfolio destroys value for the group as a whole – even though the affiliated firms perform better than its peers in the same industry. Conversely, medium to low 'strategic fit' compels groups to take position in emerging businesses (i.e. escape theory), thereby surpassing the growth of groups with high 'strategic fit' concentrating in traditional 'brick and mortar' businesses. A high 'strategic fit' only guarantees atrophy and stagnation. When various organization and environmental variables (i.e. age, size, initial-resource position, and market imperfection) were suitably controlled for, our findings remained unaltered.

Analysis of the composition of businesses of three groups in our sample clearly reflects that performance varies not only across different diversity levels, but also across different business classes. Consider this - brand businesses of Tata group fetched about 20% of sales and profits in 1990. In 2003, they accounted for nearly 50% of the revenues and 58% of the profits, though its diversity more or less remained unchanged during the same period. Therefore, it is not diversity alone, but the exposure of the Tata group to relatively emerging businesses (e.g. IT, telecom, insurance and retail) that helped improve overall performance. For instance, it was observed that two business groups with the same diversity score ended with different performance levels, while two business groups with different diversity scores ended with same performance levels. Therefore, I conclude that, as different businesses offer different profit potentials (i.e. due to differences in industry structure), it is not diversity *per se*, but the composition of the business groups' portfolio contributing to diversity that influences overall group performance.

DISCUSSION ON RESULTS

As discussed earlier there has been a bone of contention among strategy researchers whether group affiliation is profitable for a firm or not. Our results indicate that firm performance is clearly enhanced, if the firm enters into businesses which are aligned with the dominant logic of the group. However, when looking from a groups' perspective an interesting picture emerges as we observe a negative effect of 'strategic fit' on group performance. While a high 'strategic fit' benefits an affiliated firm, overall group performance seems to suffer a setback. In a situation when existing dominant logic of a business group surrounds 'brick and mortar' businesses, should the group diversify into emerging growth-oriented and profitable businesses, even though the 'strategic fit' may be low? The results are a clear indication that a

business group is better off by having relatively higher concentration of businesses with lower to medium 'strategic fit' than a high one. A high 'strategic fit' pre-empts business groups from entering emerging businesses. Emerging businesses are the engines of growth in most emerging markets, including India, which ultimately enhances group performance. The Reliance and Tata group are a clear case in this regard. I also conclude that what is good for an affiliated firm, may not always be good for the group as whole. Moreover, it seems in the context of economic liberalization, right selection of businesses add more value for the group rather than its parenting advantage over the affiliated firms (Campbell, Goold, and Alexander, 1996).

However, fortunately, dominant logic is not cast in stone; therefore, it can be shaped and changed to the tune of the changing economic environment. Dominant logics are not always infallible guides to the group and its environment. In fact, they are relatively inaccurate representation of the environment, particularly when conditions change and strategic variety sets in. Under such conditions events are not labeled accurately, and sometimes also processed through inaccurate and/or incomplete knowledge structures (Norman, 1976). As one ascend the echelons of an organization, the analysis of top management decisions making becomes increasingly complex. Not simply because they are important, critical and characterized by irreversibility, but because a 'new logic' emerges (Selznick, 1957). Dominant logic emphasizes the adaptive change and evolution of organization forms and reacting to internal and external forces. It reflects 'new logics' emerging and 'old logics' declining, not as a result of conscious design but as a natural and largely unplanned adaptation to new situations or contexts (Selznick, 1957).

Groups need to dynamically adapt to new logics in such situations. Dynamic adaptation connotes more than simple activity change or growth. It suggests certain impelling forces that have a quite different role and origin. The point is not the degree of involvement, but the reconstruction of needs, the changing posture of strategy and the commitment to new type of forces (Selznick, 1957). Adaptation fails when it is 'static'. Static adaptation means such an adaptation to patterns which leaves the basic character or trait unchanged, and implies the adoption of a mere new habit. It has limited effect on new traits (Selznick, 1957). The limits of organizational engineering become apparent when one needs to create a structure uniquely adapted to new logics. This adaptation goes beyond a tailored combination of uniform elements; it is an adaptation in depth, affecting the nature of the parts themselves. Thus there is a need to see the group as a whole and observe how it is transformed as new ways of dealing in a changed environment endures. This process of becoming infused with the values is a part of what is called 'institutionalization' (Ghemawat, 1991).

The factors that shape dominant logic of business groups are then of considerable importance. Prior to economic liberalization, most emerging markets were highly regulatory driven. Hence, environmental efficiency in such markets was very low, leading to high levels of market imperfections. This led to market failure, institutional voids and high transaction costs (Khanna and Palepu, 1997). During such periods market imperfection was predominant in explaining dominant logic of most business groups. Prior to economic liberalization dominant logic of successful groups were guided by their ability to acquire licenses and quotas, obtain priority approval for their resource mobilization plans, approval for capital imports and get policies formulated which favored it (or disadvantaged its competitors or both). In general, they were broad based, large in number, with very little consistency between them. Business

groups, which were successful in exploiting their dominant logic, entered a large number of businesses, and diversified extensively. Encarnation (1989) mentioned that large diversified business groups in India maintained 'industrial embassies' in the capital city, ostensibly for the purpose of lobbying politicians and bureaucrats to extract benefits.

The various measures of economic liberalization pursued by GoI since 1991, resulted in sharp increases in environmental efficiency in a large number of segments (Ray, 1998). This resulted in overall reduction in market imperfection in the economy over time. Therefore, as markets became more and more efficient and emerging markets integrated with the global markets, resources and more importantly, capabilities and competencies became more predominant in explaining dominant logic of business groups. In such situations, groups needed to dynamically adapt to 'new' logics. However, business groups, which could not transform their dominant logic appropriate to the changing economic environment, failed to develop such idiosyncratic resources. As a result, they failed to sustain their competitive advantage on the face of intense competition. Ultimately, their resources eroded, and their entity atrophied over time.

However, it need not be necessarily concluded, that with economic liberalization group effects will slowly atrophy over time. Business groups, which are successful in adapting to economic liberalization, transforming their dominant logic and building complex resources, will sustain their competitive advantage over time. Thus there is a need to see the group as a whole and observe how it is transformed as new ways of dealing in a changed environment endures. Therefore, the conclusion is that market failure alone does not completely explain the evolution, existence and advantage of business groups in emerging markets. In fact, groups may be the result of a wide range of organizational and socio-economic factors that has little to do with economic efficiency (Khanna & Rivkin, 2001).

Perhaps, one of the safest ways to take exposure in businesses where inertia is relatively high is to radically change the composition of the top management or hand over control of the business to a strategic partner. Successful transformation of the three groups in our sample delved on this factor. Or else the top management should wait for the industry to take its own course of action till it fits the dominant logic of the top management. Not only should the group be able to foresee changes in the economic environment, but also transform their dominant logic in the light of the changing environment. But business groups, which failed to respond to the changing faces of the environment, inevitably perished. This phenomenon has not only been observed in emerging markets, but in the case of developed markets too. After all, only seven of the first fifty business groups in 1947 were even in business by the turn of this century, and that the thirty two of the country's largest business groups in 1969 are no longer among the top fifty today (Purie, et. al., 1997). Globally, less than 10% of the Fortune 500 companies as first published in 1955, still exist as in 2005 (Govindarajan and Trimble, 2006). The lesson is clear: business groups have high mortality rates as well.

LIMITATIONS & FUTURE DIRECTION

One should appreciate here that when new directions are being struck; small sample studies are generally preferable. However, a small sample study has its own limitations as well. Validation of a framework may pose a serious problem, as is in the instant case. In such cases, a large sample study is desirable. Hence increasing the size of the sample is a major area that needs to be worked upon, to ensure robustness of the framework. Again every emerging market has its own unique evolution and history; hence findings in one context may not be relevant in another one. Therefore, the framework needs to be tested across different markets and modified accordingly to suit specific conditions. Finally, diversification is just one of the major strategic choices facing business groups. The applicability of this framework seems to be a distinct possibility in various other areas of strategic choices as well. This is likely to open up newer avenues in understanding top management decision making and its impact on performance.

CONCLUSION

Emerging markets provide business groups with an array of growth opportunities through diversification, which were hitherto not available. As new sectors are opened up and existing ones are liberalized, economic liberalization poses big challenges before business groups. Whether to pursue diversification, which presents new opportunities, or restrict businesses in current ones? My research provides some interesting clues to this crucial question. Therefore, the answer to this question can have tremendous implications for top management of business groups as well as policy makers alike. I feel a more plausible explanation for the inconsistencies among various research findings on diversification may be the reluctance of most empirical studies to address the indirect effects of some critical variables in moderating the relationship between diversification and performance. I argue one such variable is 'dominant logic' of a business group. The major theoretical advance of this paper is the contention that as long as a diversification strategy of an affiliated firm is perfectly aligned with the dominant logic of the business group, firm performance will be enhanced. Consequently, group performance is enhanced when there is a relatively loose fit between the dominant logic of the top management and its various firm businesses. A high fit is detrimental to overall group interests. This standpoint not only helps focus on average performing groups, but on outliers as well. Unlike most previous studies, this centrality will not only be enabling us to identify factors that relate to strategic successes, but strategic failures as well. Through this framework, I have not only been able to throw new light on the problem surrounding the relationship between diversification and performance, but also on the impact of group affiliation on firm performance. This perhaps points to the fact that the growth trajectory followed by a business group is not entirely the outcome of its own volition, but an outcome of the co-evolution of its economic, socio-political, and legal environment and strategic choices over a period of time.

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