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The Changing Pattern of Diversification Strategy of Business Groups in Taiwan

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Abstract

The spread of diversification has generated plentiful research over the past forty years, and the theory on corporate diversification has been finely developed. However, the evolution and changing patterns of diversification strategy in Taiwan for past decades have not been well studied. The current paper aims at empirically examining the diversification strategy of the business groups in Taiwan, and comparing the findings with those for Western countries. This paper first briefly reviews the spread of diversification and the trend to refocusing in the Western economies. Existing theories on the rationales of diversification are then reviewed. The appropriateness of employing the existing knowledge to understand the diversification strategies of Taiwanese business groups is discussed, followed by the hypotheses. Historical facts in Taiwan during the period of 1974-1994 are examined to test empirically these hypotheses. The top one hundred business groups in Taiwan were used as the research sample. It emerges from the empirical findings that, due to several institutional, social, and cultural factors, the diversification strategies of business groups in Taiwan show certain differences from their Western counterparts: vertical integration has been the most widely employed strategy in Taiwan, followed by unrelated diversification and related diversification; the trend to refocusing can be observed in Taiwan but this trend is not as apparent as in the USA.

Keywords: strategy, diversification, business groups

1. INTRODUCTION

The spread of diversification has generated plentiful research over the past forty years. The widespread trend to diversification has been highlighted by scholars, and the theory on corporate diversification has been finely developed. However, our existing knowledge on diversification is largely based on the situation of Western economies and the experiences of Western firms. Due to some institutional and cultural differences, it may be possible that the existing knowledge cannot entirely explain the situation of diversified business groups in Taiwan. Therefore, the current paper aims at empirically examining the diversification strategy of the business groups in Taiwan, and comparing the findings with those for Western countries.

This paper first briefly reviews the spread of diversification and the trend to refocusing in the Western economies. Second, existing theories on the rationales of diversification are reviewed. Then I discuss the appropriateness of employing the existing knowledge to understand the diversification strategy of Taiwanese business groups, followed by the propositions. The fourth part explains the research methods. Finally, historical facts in Taiwan during the period of 1974-1994 are examined to test empirically these propositions.

2. THE SPREAD OF DIVERSIFICATION

The pioneering work on diversification is Chandler's (1962) *Strategy and Structure*, which describes the evolution of the strategies and structures of multibusiness firms in the USA. Chandler found that from a historical perspective, firms grew by adopting several strategies: by combining with competitors (horizontal integration), by moving backwards to control materials and forwards to control outlets (vertical integration), or by diversifying into related or unrelated business areas. In addition, Chandler found that in many cases there was a developmental sequence: from a single-business firm to a vertically integrated firm, and then to a diversified firm. He also reported that each of these strategies was associated with a particular type of structure. For example, the multidivisional (M-form) structure was adopted by highly diversified firms.

Inspired by Chandler's work, Scott (1971) developed a three-stage model of organizational development in which the stages follow one another in a historical sequence. Stage I is haracterized by a single product associated with a little or informal, "one-man show" structure. At Stage II, only a single product line is developed and the structure is based on functions; while at Stage III companies are characterized by diversified operations associated with a more decentralized organizational structure. After empirically surveying the *Fortune* 500 companies, Scott reported that most of them were in Stage III, i.e. diversified, and that none were in Stage I, with only a single product.

Associated with Scott's work, in the late 1960s and early 1970s, a research program on the spread of diversification in different economies was conducted at Harvard Business School in order to test the company-development model proposed by Chandler. These projects all used the classification model developed by Wrigley (1970) and Rumelt (1974) to subdivide firms into four main categories: Single Business, Dominant Business, Related Business, and Unrelated Business. Rumelt (1974) found that during the period of 1949-1969, the percentage of Single Business firms in the *Fortune* 500 dropped from 29% to 7%, Related Diversified firms increased from 29% to 45%, and Unrelated Diversified firms increased from 3% to 12%; the only stable category was the Dominant Business, which remained at 36-39%. Rumelt's analysis strongly confirmed what Wrigley's data suggested: increasing diversification and an overwhelming trend away from Single Business. It also demonstrated the decline of the functional organizational structure and the rise of the M-form structure.

Using the same concepts as Wrigley and Rumelt, a series of research projects was conducted to test the European parallels, in the UK (Channon, 1973), Italy (Pavan, 1972), Germany (Thanheiser, 1972) and France (Pooley-Dyas, 1972). For instance, Channon investigated the evolution of diversification strategies and multidivisional structures of the top 100 British enterprises over 1950-1970; he found that during this period the percentage of Related and Unrelated Diversified firms increased from 25% to 60%, while Single Business firms decreased from 34% to 6%. Although small differences existed from country to country, the data demonstrated an apparent trend toward diversification in each of these countries; it also showed a decline in the proportion of the companies in only one industry. Overall, both in strategy and structure, the European companies paralleled those in the USA. (Scott, 1973).

In Asia, a similar study was conducted in Japan (Suzuki, 1980). By replicating Channon's research on the Japanese top 100 industrial enterprises, Suzuki reported an apparent increase in diversification: in 1950, only about 40% of Japanese enterprises were diversified, but by 1970 this ratio has increased to about 65%, which was even higher than had been found in European countries.

3. LITERATURE: RATIONALES OF DIVERSIFICATION

Why do firms diversify? What are some benefits firms pursue through diversification? What are some costs associated with it? There has been ample of studies, based on a variety of theoretical grounds, trying to answer these questions. This section first reviews the rationales of diversification, from transaction cost economics, strategic management, and agency theory perspectives. Literature on the rationales of refocusing is also reviewed.

3.1 Transaction Cost Economics Perspective

The central argument of the transaction cost economics is that whether transactions are organized within a firm (i.e. hierarchy) or between autonomous firms (i.e. market) depends on the comparative transaction costs that attach each; the boundary of a firm is thus a variable determined by transaction costs (Coase 1937). Therefore, if a firm finds that a transaction through the market is more costly, it will internalize this transaction to economize the costs. For different diversification strategies, three types of benefits underlie: (a) economies of integration, (b) economies of scope/scale, and (c) economies of internal capital market.

3.1.1 Economies of Integration

Transaction cost economists suggest that in the markets and hierarchies paradigm, vertical integration can effectively eliminate the transaction costs of using the market to regulate exchanges (Williamson 1975, 1985). Because managers can only act with bounded rationality, given the uncertain environment, contractual relations are prone to be unstable. Firms face the risk that through the market the value-added chain cannot be accomplished or can only be fulfilled very costly. Especially when some resources (e.g. raw materials, parts, human capital, distribution channels) are transaction-specific, or are the important sources of competitive advantages, to secure the harmonious trading relationships, firms have to afford costs to monitor and eliminate opportunistic behaviors from the trading partners. Once these safeguarding costs exceed the hierarchical costs, firms have strong incentives to internalize the transactions into the boundary of the firms, i.e. vertical integration.

3.1.2 Economies of Scope and Scale

The premise of the economies of scale is the existence of an imperfectly divisible asset (including tangible or intangible assets) which is currently under-utilized, and diversification comes from the desire to fully utilize that idle capacity. Since many resources are imperfectly divisible, firms can hardly reach the full range of usage for all resources under a certain amount of production. Meanwhile, firms also encounter problems of selling these spare resources because of market imperfections and the specialized use of these resources. Therefore, firms always keep some resources that are under-utilized (Penrose, 1959). Transaction cost economists (e.g. Gorecki 1975; Montgomery & Wernerfelt 1988; Teece 1980) have emphasized the cost-saving and resource-sharing benefits that arise when a firm diversifies to exploit its excess firm-specific assets, such as brand names, managerial skills, consumer loyalty, and technological innovations.

3.1.3 Economies of Internal Capital Market

According to Williamson, the external capital market is often inefficient because of its information and control disadvantages. On the one hand, bounded rationality disables the investors to collect perfect information about the firm; on the other hand, information asymmetry enables the managers to misrepresent the value of the firm to public investors. Consequently, top management can maximize their own utility functions at the cost of the investors' wealth. Williamson argues that multibusiness firms can allocate and manage resources more efficiently than the external capital market because of their superior governance characteristics. Through internal audit, hire-and-fire policies, performance assessment and incentive schemes, and internal competition, the corporate office of conglomerate works as an efficient internal capital market that overcomes the problems of the external capital market.

3.2 Strategic Management Perspective

3.2.1 Environmental Change and Growth

Strategic management scholars have viewed diversification as firms' reaction to the challenges and threats resulting from the external environment, such as a declining industry, a technological breakthrough, a competitive new entrant, and a saturated market. Some scholars consider diversification as a strategy of achieving corporate growth (e.g. Ansoff 1965; Penrose 1959). Scholars argues that under some circumstances, firms are expected to adjust their current business portfolio and to seek more profitable markets to enter. These situations include: when a firm's objectives can no longer be met within the scope of the present portfolio, when the threat of loss is approaching, when the present market is declining, and when diversification opportunities promise greater profitability than the existing business portfolio. Also through diversification the long-term growth of a firm becomes less dependent on the trend in demand for products within its primary industry; this can also reduce the risks associated with the unpredictable changes in the profitability of a particular industry.

3.2.2 Synergy

Synergy means "what makes the corporate whole add up to more than the sum of its business unit parts" (Porter 1987). When resource sharing among business units can create valuable benefits for a firm, top management is encouraged to expand its current strategic portfolio to realize these benefits. Therefore, firms diversify into related areas to exploit the synergistic interrelationships between business units. Porter (1987) argues that, in a diversified firm where each business unit has a separate value chain, if there exist some activities in these chains where common skills or expertise can be shared and transferred, resource interdependence can lead to significant benefits.

3.2.3 Competitive Strategy and Entry Barriers

The industrial organization scholars have suggested that through diversification firms can secure their market power and positions, and build market entry barriers. For instance, Karnani & Wernerfelt (1985) argue that it is often that firms encounter rivals that they simultaneously compete within more than one industry. Given this multipoint competition, like playing a chess game, rivals' actions in one industry may have strategic implications for another industries. Industries are thus linked together. Therefore, a firm may decide to expand into an industry just because its competitors have moved in, or because it would like to build the entry barrier in advance to prevent its competitors from entering this industry (Porter 1980).

3.2.4 Other Perspectives

In addition to these strategic and economic rationales, diversification can also be influenced by the agency problems. The agency problem arises from the separation of ownership and control, which is an important nature of modern enterprises (Fama and Jensen 1983a). Shareholders (principals) delegate the control of the firm to managers (agents) who are expected to fulfil the maximization of shareholders' benefits. However, the goals of principals and those of agents are sometimes unequal or even conflicting, and the agents may act to satisfy their own utility rather than principals' benefits (Fama and Jensen 1983b). Many scholars have pointed out that diversification can serve for the goals of managers to protect and enhance their personal compensation packages, including pecuniary and non-pecuniary rewards, such as salaries, the number of subordinates, large office space, status, recognition, reputation, and power (Aron 1988; Lauenstein 1985; Mueller, 1977). Also managers may tend to engage in diversification to decrease their largely undiversifiable "employment risk", such as the risk of losing jobs, and professional reputation (Amihud & Lev 1981).

In addition, the upper echelon theory (e.g. Hambrick and Mason 1984) proposes that the top management's characteristics, such as training background, career experiences, attitude toward risk (e.g. conservative or risk-seeking) and its locus of motivation, may influence its decision on diversification. Theorists of the Carnegie School (e.g. Cyert and March 1963) argue that in organizations such complex decisions are largely the outcome of behavior factors rather than a mechanical quest for economic optimization. Organization homogeneity theorists (DiMaggio & Powell 1983) argue that while facing uncertainty in the environments organizations may self-consciously mimic other more successful organizations because "grass looks greener in the neighbor's yard".

3.3 Costs of Diversification and Rationales of Refocusing

Like the two sides of a coin, diversification has its associated costs as well as benefits (Markides, 1995). Scholars have pointed out some costs that pertain to diversification. First, from the information processing viewpoint, Williamson (1967) argued that top management must gather information from the operating layers of the firm and make decisions and then send down directions based on the information gathered. When passing through different layers of the organizational hierarchies, some information may be lost or distorted. The bad quality of information and communication thus puts costs to diversification.

Another cost comes from firms' limited management resources. Prahalad and Bettis (1986) argue that the capability of the top management to adopt multiple "dominant logics" is a constraint of diversification. When managers continue to apply their existing dominant logic on newly-acquired, strategically-dissimilar businesses, X-inefficiencies creates. Also the expansion of a firm's hierarchical structure associated with diversification increases the costs of coordination and control relative to the real output (e.g. Keren and Levhari, 1983). Moreover, the losses of control and efforts arising from increasing shirking also increase the cost of diversification (Calvo & Wellisz, 1978).

Given all these, it is argued that the costs to diversification increases and the benefits associated with it decreases simultaneously. Therefore, as long as the marginal cost of diversification equals to the marginal benefit of diversification, i.e., the "net benefit" is zero, a firm reaches its limit to diversification. Therefore, there exits an optimal limit to diversification for every firm. Before reaching the limit, diversification is profitable; after this point, the costs will outweigh the benefits and it does not pay for the firm to diversify any more.

Markides (1995) further proposes two main reasons for firms' refocusing: some firms have gone beyond their optimal level of diversification, or this level has been shifted by the external environment. On the one hand, because of the agency problems that induce overdiversification, some firms may have gone beyond their limit to diversification and thus experience inefficiency and inferior performance; hence they are forced to reduce their degree of diversity. On the other hand, some environmental changes (mainly the improvement of the external capital market) may shift firms' optimal diversification level and make them become overdiversified.

4. HYPOTHESES

In additional to these standard reasons for diversification discussed above, the emerge of diversified business groups in Taiwan has been influenced by several environmental and social/cultural factors, such as market imperfections, small domestic markets, government's economic development policies, high own capital, entrepreneurship, and some family, interpersonal-related factors. These factors, together, may put additional influence upon the diversification strategy of Taiwanese business groups, and make them showing certain differences from their Western counterparts.

First, according to Leff (1978), the business group can be understood as a microeconomic response to the condition of market failure in the domestic markets. The business group can be an organizational structure to appropriate quasi rents that accrue from access to scarce and imperfectly marketed inputs, such as capital, information, high-level managers with honesty and trustworthy competence. Moreover, it is usual that in a less developed market, there exists monopoly or bilateral oligopoly which involves serious risks and uncertainties faced by firms; therefore, business groups tend to seek vertical integration to avoid depending on a monopolist or oligopolist for material inputs, or on an oligopsonist for the group's outputs.

Being a developing economy, Taiwan is considerably prone to these market imperfections. Hence, many business groups pursue vertical integration to avoid these transaction costs. The main manufacturing companies of the group are thus connected with affiliated companies providing raw materials, intermediate goods and service (i.e. the group is integrated upwards), as well as the trading companies that act as the export window to overseas markets, and retailing companies for the local markets (i.e. the group is integrated downwards).

Therefore, given the market imperfections and relatively small size of domestic markets, Taiwanese business groups are expected to be prone to higher risks and uncertainties, and the transaction costs associated with securing the supply of raw materials and intermediate goods, as well as selling the final products, are higher. Therefore, it is expected that they will vertically integrate to decrease these costs and to increase their control upon the industries. Furthermore, the entrepreneurship nature of Taiwanese business groups also suggests vertical integration. Therefore, it is hypothesized that:

Hypothesis 1: Among Taiwanese business groups, vertical integration will be the most widely employed strategy for diversification.

Second, because the separation of ownership and control is not as clear in Chinese businesses as in the Western firms, the agency problems widely mentioned in the existing literature may be less significant in Taiwan. Most Taiwanese firms are simultaneously held and (formally or informally) controlled by families. The founder arranges his/her family members, friends or founding partners to hold the top (or important) management positions in several affiliated companies; mutual shareholdings among affiliated companies are popular. Under these situations, the possibility of the agent (i.e. manager) seeking to satisfy his/her own utility functions through diversification, at the costs of the principal (i.e. owner), is much lower, because these two parties are actually overlapping and their conflict of benefits is expected to be less significant. This lead to the expectation that unrelated diversification is comparatively minor in Taiwan. Although the existence of idle internal funds may favor unrelated diversification (Chartterjee and Wernerfelt, 1991), this factor seems to be not strong enough to take over the influence of the previous two reasons. It is hence hypothesized that:

Hypothesis 2: Among Taiwanese business groups, unrelated diversification will be the least popular strategy for diversification.

As to the phenomenon of refocusing, Markides (1992, 1995) has pointed out two main reasons underlying firms' refocusing. First, some multibusiness firms are forced to refocusing because they have been overdiversified; their degree of diversity has gone beyond their given limit, and thus their performance suffers. Secondly, environmental changes (e.g. globalization and deregulation) bring extra complexity to multibusiness firms and shift their optimum levels diversification, thus though some firms have not met their prior limits to diversification they become unable to manage effectively their businesses. These two reasons, together, lead to the widespread refocusing in the USA. in the 1980s.

In Taiwan, the second reason (i.e. the environmental change) largely exists because the used-to-be-protected domestic markets have been opened since the 1980s, and international competition became more intensive. Those policies (such as tariff protection, tax benefits, privileged licenses to certain industries and the over evaluation of currency), have been removed. Therefore, it is predictable that the increased complexity and competition may make it more difficult for firms to compete simultaneously in many industries. On the other hand, the first reason may not be so significant in Taiwan. As has been previously indicated, agency problems, which lead to managers' preference on conglomerate acquisitions, may be less significant in Taiwan. Also compared with the *Fortune* 500 firms, the development of Taiwanese business groups may be still in an earlier stage so that many of them may have not met their limits to diversification yet. Therefore, it is expected that the case of prior overdiversification is less popular in Taiwan. It is thus hypothesized that:

Hypothesis 3: The trend to refocusing can be observed in Taiwan but this trend is not as apparent as in the USA.

5. RESEARCH METHODS

5.1 The Sample and the Data

Business groups are not limited to Taiwan and are commonly found in many countries. However, the characteristics of business groups differ from country to country. For example, the pre-war *Zaibatsu* of Japan had an ownership structure in which the holding company controlled the affiliated companies, while the business groups that re-formed after the war (i.e. *Keiretsu*) are tied together mainly by minor reciprocal shareholdings and informal meetings of presidents of affiliated companies. Conglomerates in the USA are groups of manufacturing firms brought together mainly by mergers and acquisitions. And Korean business groups (i.e. *Chaebol*) are groups of formally independent companies owned and controlled by certain families.

In order to avoid confusion and simplify the analysis, given the characteristics of business groups in Taiwan, this thesis defines a business group as *a group of formally independent companies that affiliate through share-holding and/or interpersonal connections, under a common leadership center that seeks to achieve the goals and benefits of the entire group*. By this definition, the essential elements of the formation of a business group are shareholdings and interpersonal connections among the affiliated companies. If there exist neither shareholding relationships nor interpersonal linkages, several independent companies cannot become a business group, though there may exist some strategic alliances or transaction activities among them.

I used the existing data base published by the China Credit Information Service Company (CCIS) to identify the 100 largest Taiwanese business groups, in terms of their revenues. According to the data, in 1994 the top 100 groups comprised 909 divisions. Some of these divisions were not business units (e.g. they were schools, hospitals, foundations, etc.), and some overseas subsidiaries lacked financial data, so I omitted them and analyzed only the remaining 861 divisions.

When analyzing the changing pattern of diversification strategies of the business groups, over time, I selected the time span of 1974-1994 because 1974 is the first year for which data are available, and this period is comparable to the 20 years used by earlier research projects analyzing diversification trends (e.g. Rumelt, 1974; Channon, 1973; Pavan, 1972; Pooley-Dyas, 1972; Suzuki, 1980; Thanheiser, 1972).

Most of the data used in this study are from *Business Groups in Taiwan*. When a case of missing data occurred, company annual reports were consulted.

5.2 Measurement of Diversification Strategy

There are several different ways to measure diversification (see Ramanujan and Varadarajan, 1989, for an exhaustive review). Generally, studies rooted in the industrial organization paradigm (e.g. Montgomery &

Wernerfelt, 1988; Jacquemin & Berry, 1979; Chatterjee & Wernerfelt, 1991) treat diversification as a continuous variable and operationalize it more quantitatively. They use measures based on the number of products a firm sells or the number of industries (measured by the Standard Industrial Classification, SIC, code) in which it participates. This product-count method is more *objective* because the SIC code can provide "precise" measurement, but the relatedness among divisional activities is ignored.

For instance, the entropy index of diversification introduced by Jacquemin and Berry (1979) is a SIC-based method widely used by economists. This index measures the degree of diversification by using the 4-digit and 2-digit SIC codes to examine the number and the relative importance of the industrial segments in which a firm operates, and the relative shares of the firm's total sales coming from related and unrelated industrial segments.

On the other hand, research rooted in strategic management tends to use a cut-off point to classify diversified firms into categories. A more *subjective* method is used, and the relatedness among businesses is taken into consideration, for instance, Wrigley's (1970) and Rumelt's (1974) categories. Because one of the main purposes of the current thesis is to identify and compare the management arrangements and the associated performance of business groups pursuing different diversification strategies, the categorization approach serves the research needs better. Also, the categorization approach has been employed in most strategic management literature; thus it provides an ideal base for comparison. I therefore used Rumelt's classification.

Rumelt's method is based on the following three ratios to sort diversified firms into different strategic categories:

- *Specialization Ratio* (SR): defined as the proportion of a firm's revenue that is attributable to its largest discrete product-market activity.
- *Related Ratio* (RR): defined as the proportion of a firm's revenue

that is attributable to its largest group of businesses that are related in some way to one another.

- *Vertical Ratio* (VR): defined as the proportion of a firm's revenue that is attributable to all of the by-products, intermediate products, and final products of a vertically integrated sequence of manufacturing operations.

Once the three ratios have been calculated, the classification proceeded as follows:

If SR ≥ 0.95 $\Rightarrow$ *Single Business*

If SR < 0.95 *and VR* ≥ 0.7 $\Rightarrow$ *Vertical Integration*

If SR < 0.95 *and VR* < 0.7 *and RR* ≥ 0.7 $\Rightarrow$ *Related Business*

If SR < 0.95 *and VR* < 0.7 *and RR* < 0.7 $\Rightarrow$ *Unrelated Business*

6. EMPIRICAL RESULTS

Table 1 summarizes the distribution of the top 100 Taiwanese business groups by Rumelt's strategic categories. Overall, it shows that the degree of diversity has been increasing over time: the percentage of Single Business firms decreased from 13% to 7%, and Vertical Integration firms increased slightly from 39% to 41%. Meanwhile, we also observe an increasing trend of Unrelated Business (from 24% to 28%), and Related Business remained stable (24%). These findings generally match those of the existing studies on Western economies.

Table 2 provides another two complementary indexes of the expansion of diversification. It shows that the average number of affiliated companies each business group has is increasing through time, from 6.17 to 8.61. The most eye-catching expansion happens among the top 10 groups, from 11.9 to 18.6, with a net increase of 6.7 affiliated companies. On the other hand, smaller groups expand much more slowly. Similar observations can be made from the increasing number of 2-digit industries which business groups compete in. These figures indicate that the overall extent of diversification is increasing in Taiwan, although not at the rate that Western firms diversified.

Table 1 Distribution of Taiwanese Business Groups by Strategic Category (Number of Business Groups and Percentage in Each Category)

Year	Single Business	Vertical Integration	Related Diversification	Unrelated Diversification	Total
1974	13 (13%)	39 (39%)	24 (24%)	24 (24%)	100 (100%)
1984	6 (6%)	40 (42%)	22 (23%)	28 (29%)	96 (100%)
1994	7 (7.0%)	41 (41%)	24 (24%)	28 (28%)	100 (100%)

Table 2 Average Numbers of Affiliated Companies and 2-Digit Industries of the Top 100 Business Groups, 1974-1994

	Change in the average number of companies				Change in the average number of 2-digit SICs			
Group Rank	1974 n=100	1984 n=96	1994 n=100	Net Change	1974 n=100	1984 n=96	1994 n=100	Net Change
1 – 10	11.9	16.7	18.6	+6.7	7.9	9.7	10.8	+2.9
11–20	8.7	9.5	11.6	+2.7	5.9	8.1	9.2	+3.3
21–30	7.1	9.0	7.6	+0.5	5.2	5.9	6.3	+1.1
31–40	7.0	5.5	9.2	+1.4	4.8	4.0	7.1	+2.3
41–50	6.1	6.4	7.2	+1.1	3.8	5.2	5.5	+1.7
51–60	4.2	5.2	6.8	+2.6	3.2	4.0	4.8	+1.6
61–70	4.1	5.2	6.2	+2.1	3.3	4.2	4.2	+0.9
71–80	4.4	6.3	6.7	+2.4	3.8	3.6	5.1	+1.3
81–90	4.3	5.5	6.3	+2.0	3.2	3.4	4.6	+1.4
91–100	3.9	4.3	5.9	+1.9	2.7	3.2	3.5	+0.8
Average	6.17	7.49	8.61	+2.4	4.38	5.21	6.11	+1.73

As to Hypothesis 1 (i.e. vertical integration is the most widely employed diversification strategy in Taiwan), we can see from Table 1 that, for the past two decades, Vertical Integration firms have been the largest category, accounting for about 40% of the top 100 business groups. Hypothesis 1 is thus supported. As proposed by Leff (1978), due to market imperfections and the small size of domestic markets, business groups in the less developed countries tend to seek vertical integration in order to increase their control upon inputs and outlets to avoid the high transaction costs. Chang and Choi's (1988) empirical study on the 30 largest business groups in Korea also reports the similar findings.

In Hypothesis 2 we argue that unrelated diversification is expected to be the least popular diversification strategy in Taiwan. Unfortunately, from Table 1, we see that the percentage of the Unrelated Business firms is 28, much lower than that of the Vertical Integration firms (40%), but still higher than the Related Diversification business (24%). Hence, no support was found.

To test Hypotheses 3 (i.e., the trend to refocusing exists in Taiwan but not as apparent as in the USA), I first compared the diversification trend in Taiwan and the results of similar exercises using *Fortune* 500 firms done by Rumelt (1974) and Markides (1995)[1]. Table 3 shows the results. In the USA. since the 1980s the formerly dominant trend toward diversification was arrested; the trend is toward downsizing and refocusing. However, for Taiwanese business groups, the phenomenon of corporate refocusing can not be observed clearly from the aggregated data. To investigate their refocusing activities more clearly, I therefore checked the changes in diversification for each business group individually. When doing this, because the constituents of the "top 100 business groups" change considerably from year to year (especially many business groups are lost from the list), only 39 groups can provide adequate data for this analysis.

Table 4 shows the results of the 39 groups' change in strategic categories and in the number of divisions they had from 1974 to 1994. The overall observation is that the majority of business groups increased their degrees of diversity, but <u>some</u> refocused. It is found that between 1974 and 1994, 13 groups (33%) increased their diversity, 7 groups (18%) refocused, and 19 groups (49%) made no changes. Among those 7 refocusing groups, 1 group adjusted itself from an Unrelated Business firm to a Related Business firm, 3 groups

[1] In order to conduct this comparison, I have to revise the strategy categories of business groups to match those of Rumelt's (1974) and Markides' (1995). That is: Single Business, Dominant Business, Related Business and Unrelated Business. In other words, Dominant Business replaces Vertical Integration. In the category of "Dominant Business", three types of strategies are covered: Dominant-Vertical, Dominant-Related, and Dominant-Unrelated.

refocused from Unrelated Business firms to Vertical Integration firms, 1 group refocused from a Related Business firm to a Vertical Integration firm, and 2 groups adjusted from Vertical Integration firms to Single Business firms. Therefore, refocusing activities do exist in some Taiwanese business groups.

Data shown in Table 4 also provide additional information supporting Hypothesis 1. Ideally, to examine the change pattern of diversification strategies of business groups in Taiwan, I need to check the change in diversification for the same business groups in the years of 1974, 1984 and 1994. However, because the constituents of business groups on the top 100 list very from year to year, the statistical results summarized in Tables 1 and 2 actually demonstrate only the overall level of diversification among leading businesses in Taiwan. To further clarify this, based on the results of Table 4, I check the distribution of diversification strategies the 39 business groups. I found that vertical integration still turned out to be the most widely adopted strategy in Taiwan, accounting for 41-51 percent of the sample firms, followed by unrelated diversification, with a percentage between 28 and 38 (see Table 5). Hypothesis 1 is again strongly supported[2].

Table 3 Comparison of Diversification Trends in Taiwan and the USA. (Percentage in Each Category)

	Single Business	Dominant Business	Related Diversification	Unrelated Diversification	Total
Taiwanese Business Groups					
1974 (N=100)	13.0	56.0	13.0	18.0	100
1984 (N=96)	6.3	56.3	16.7	20.8	100
1994 (N=100)	7.0	48.0	20.0	25.0	100
US Counterparts					
1949 (N=500) [a]	29.2	38.7	29.2	2.9	100
1959 (N=500) [a]	16.1	40.1	38.0	5.8	100
1969 (N=500) [a]	7.3	35.8	44.5	12.4	100
1981 (N=210) [b]	23.8	31.9	21.9	22.4	100
1987 (N=210) [b]	23.8	31.9	21.9	22.4	100

a: from Rumelt's (1974) study. b: from Markides' (1995) study.

[2] The author thanks an anonymous reviewer for providing this suggestion.

Table 4 Changes in Diversification, 39 Stable Business Groups, 1974-1994

	Strategy				Number of affiliated companies			
Business Groups	'74	'84	'94	change	'74	'84	'94	change
Lin Yuan	U	U	U	0	8	9	3	-5
Formosa Plastic	V	V	V	0	8	15	14	+6
Shin Kong	U	U	R	—	12	21	23	+11
Wei Chuan	U	U	U	0	6	14	18	+12
Yu-Loong	U	V	V	—	8	10	20	+12
Ching Fong	S	V	V	+	3	10	14	+11
Far Eastern	U	U	U	0	10	18	23	+13
Ta-Tung	V	V	V	0	26	27	32	+6
Tontex	R	R	U	+	11	13	15	+4
Yuen Fong Yu	U	R	U	0	16	23	16	0
Teco Electronics	V	V	V	0	4	10	15	+11
Taiwan Cement	S	V	V	+	5	7	13	+8
Chi-Mei	V	V	V	0	11	11	6	-5
Sampo	R	R	R	0	5	10	15	+10
Tainan Textile	U	U	U	0	23	35	12	-11
Shung Ye Trading	S	V	V	+	5	5	5	0
Chung Shing Textile	R	R	U	+	4	8	5	+1
Chang Chung	V	V	V	0	3	4	9	+6
Pacific Electronics	U	U	V	—	13	9	9	-4
Chun Yuan Steel	S	R	R	+	4	7	5	+1
Ruentai	V	V	U	+	4	6	16	+12
China General Plastics	V	V	S	—	9	11	5	-4
Prince Motors	S	S	V	+	3	4	9	+6
Hwa Eng Wire & Cable	V	V	V	0	5	4	3	-2
Chia Hsin Cement	U	U	V	—	6	5	7	+1
Lien Hwa	U	U	U	0	5	5	5	0
Shinung	U	U	U	0	5	4	12	+7
Fwu Sow Grain Products	V	V	V	0	3	7	6	+3
Lee Tah Farm Industries	V	V	V	0	3	3	5	+2
Tah Tong Textile	V	V	U	+	10	13	13	+3
South East Cement	V	V	S	—	7	5	5	-2
Chun Yu Works	V	V	V	0	3	4	6	+3
Kwong Fong	R	V	V	—	3	3	7	+4
Kung Hsus She	V	U	U	+	8	6	3	-5
Sino-Japan Feeds	V	V	V	0	7	4	5	-2
Fui I	R	R	U	+	6	3	5	-1
Taiwan Pineapple	V	V	V	0	4	3	5	+1

Business Groups	Strategy '74	'84	'94	change	Number of affiliated companies '74	'84	'94	change
San Wu Textile	R	R	U	+	3	3	3	0
Tong Shin	R	U	U	+	4	4	3	-1

Note: S: single business; V: vertical integration; R: related business; U: unrelated business

+: ncreasing diversity; — : Refocusing; 0: With no change.

Table 5 Change of Diversification Strategies of the 39 Business Groups (Number of Business Groups and Percentage in Each Category)

Year	Single Business	Vertical Integration	Related Diversification	Unrelated Diversification	Total
1974	5 (13%)	16 (41%)	7 (18%)	11 (28%)	39 (100%)
1984	1 (3%)	20 (51%)	7 (18%)	11 (28%)	39 (100%)
1994	2 (5%)	19 (49%)	3 (8%)	15 (38%)	39 (100%)

7. SUMMARY AND CONCLUSIONS

In this paper I empirically investigate the evolution of diversification strategy among top 100 business groups in Taiwan. I reviewed the existing theories on diversification, and examined the appropriateness of employing these theories to understand Taiwanese firms. Some environmental, institutional and social/cultural factors that might influence Taiwanese firms' strategy were identified. These factors include: market imperfections and small domestic markets in a less developed economy, the government's economics and industrial policies, corporate finance, entrepreneurship, the overlapping of ownership and control, the imperfections of the market for corporate control, late development, family influence, and some Chinese values.

The findings of the current study largely support our line of reasoning. Among the strategic categories, it is found that vertical integration represents the most widely employed strategy in Taiwan, indicating both the characteristics of a developing economy and the entrepreneur nature of the business groups. Also the refocusing activities are found to be less widespread in Taiwan, reflecting both the relatively late development of Taiwanese economy and the limit of applying the Western conglomerate philosophy in Chinese businesses.

We can not, of course, rule out the possibility that factors not discussed in this study might be influential. For instance, some scholars (e.g. Chu and MacMurray, 1993; Chang and Choi, 1988; Leff, 1978) have pointed out that political connections can be one reason for the arise of business groups in the developing countries. Although it may be so, this argument is not explicitly incorporated in this study for developing the hypotheses because its implication to business groups' decisions on diversification strategy and diversification mode seems to be vague.

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