# A Study on Corporate's Size Strategy

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《目 次》



## Ⅰ. Introduction

Despite many literature on both of size and strategy-performance relationship have been developed, few studies on the association in relation to increase of firm's size have been examined. Most of empirical on the large firm. Little information is available to compare the strategy-performance relationship of small business, medium-sized corporation, and large corporation, respectively.

The purpose of this paper is to examine as to what differences in the strategy-performance nexus according to firm's size distribution exist. The results provide firm's manager and academic researchers managerial guidance and insight for strategic changes in relation to increase of firm's size.

## Ⅱ. Literature Review

This section describes the follows: size and competitive advantage, size distribution, and strategy variables.

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### 1. Size and Competitive Advantage

According to Figenbaum and Karnani (1989), a firm's size relative to its competitors has been recognized as an important variable explaining firm strategic behavior and performance. Traditional research in economics marketing and strategy has emphasized various mechanisms that enable large firms to gain a competitive advantage, and hence the ability to compete more effectively against small firms. Literature in economics has generally found a significantly positive firm size-profitability (FTC, 1969; Imel and Helmberger, 1971; Gale, 1972 ; Shepherd, 1972). This stream of literature assumes that firm size is a causal determinant of firm profitability. It is argued that large firms enjoy advantages such as economies of scale, bargaining power with suppliers and distributors, brand name recognition, and experience curve effects.

Recent research in the field of marketing and strategy has discussed methods by which small firms can compete effectively against large firms. Of the issue of what strategies small firms have to select to gain a competitive advantage against large firms, there are market niches that small firms seek. A viable niche should be big enough for the small firm, and unattractive to large firms, thus enabling the small firm to utilize its limited resources and avoid head-on competition with the large competitors. A niche can be defined along any of the three dimensions: product, customer, and technology (Abell and Hammond, 1979 ; Buzzell and Gale, 1987; Figenbaum and Karnani, 1989).

In the field of business strategy, another perspective on strategies that small firms can use to gain a competitive advantage is the environment characteristics such as growth rate and concentration of competitors, and products and strategic characteristics. Woo' s research demonstrated that high-performing low-share businesses were located within environments characterized by stability, high value-added products, and a large number of competitors.

### 2. Size Distribution

The size-firm growth relationship in the field of economics has been long debate (Alexander and McConnell, 1949; Hart and Prais, 1956 Simon and Bonn, 1958; Hymer

and Pashigan, 1962 Singh and Wittington, 1975 Kumar, 1985 ; Evans, 1986; Hall, 1987). Hymer and Pashigan, and Singh and Whittington found that firm growth is positively related to firm size, while Kumar and Evans found negative relationship is not significant.

Many paper also discussed variation of firm's growth rate in relation to firm size (Alexander and McConnell, 1949; Hart and Prais, 1956; Simon and Bonni, 1958; Singh and Whittington, 1975).

Alexander and McConnell, and Singh and Whittington found that the relationship between firm size and the valuation of firm's growth rate is significantly negative. This implies that as the firms size increases, the valuation of the firm's growth rate is inversely rated to firm size.

Besides the above association, profit and variation of profit rate in relation to firm size have been developed (Alexander, 1949; Samuels and Smyth, 1968). Samuels found that firm size-profit relationship is significantly negative. This implies that as firm's size increases, the firm's profit decreases. In the case of variation of profit rate.

Alexander (1949) and Samuels and Smyth (1968) found that the firm size-the variation of profit rate association is significantly negative. This means that the variation of profit rate relates inversely to firm size.

### 3. Strategic Variables

This paper is concerning for the following four variables : capital intensity, advertising, debt and newness of plant and equipment.

According to Patton (1976, p.121), the rate of capital investment by the firm provides information on management's commitment to expansion and modernization of facilities. Chudson (1945), Steidl (1947), and Schor (1952) found that the ratio of net fixed assets to sales increases with size of firm in American manufacturing. Also, Davis (1956), Stigler (1963), and Caves and Pugel (1980) found that capital-sales ratios are positively related to firm size within industries. Mills and Schumann (1985) provided two reasons for this follows:

① Large firms use production methods with greater capital requirements to achieve

technical economies of scale.

② Firms that are more vertically integrated have greater capital requirements since they produce intermediate products as well as final products.

If size varies directly with the degree of vertical integration, then large firms would be more capital intensive. On the resources usually begin with limited capital and have difficulty raising more, so there is seldom cash available to invest in elaborate strategic program.

According to Baumback and Lawyer (1979), insufficient capital is one of small business failure. Steiner and Solem (1988) indicated that a successful small manufacturing business is likely to access to adequate financial resources.

According to Shepherd (1979), the whole effect of advertising is to raise entry barriers. This in turn leads to excess profits, which will vary closely with market shares. Within an industry, advertising intensity will often decline as market share rises. Smaller rivals will have average advertising costs per unit of output that are respectively two and one-half times as large and five times as large rivals. Shorer (1980) pointed out that large chain reinforce lower advertising cost per sales dollar than the small chain.

Lack of marketing skill is one of causes of small business failure (Stanford, 1982). This gives the small firm the opportunity of catering profitably for small market segments, and profitable but low volumes can be disposed of market saturation occurs. Morganosky (1988) found that large manufacturers emphasize advertising more than small manufacturers.

Debt presents information on the firm's financial structure and source of funds. Because of the rapid expansion of the large firms and their large capital outlays, it is reasonable to expect that outside funds, in addition to operating profits, are necessary. Debt is expected to be positively related to profitability (Patton, 1976, p. 121).

According to Wucinich (1979) undercapitalization is reported to be a major cause of small business failure. Jones (1979) indicated that small business success is also affected by the composition of initial capital (i.e., debt versus equity). Too much debt leads to liquidity problems, especially during the first year when high start-up expenses and low revenue are common. According to Baumback and Lawyer (1979, p. 21) pointed out that

bad debt is one of causes of small business failure. According to Kirk and Noonan(1982), debt is an essential source of funds for small business.

According to Patton (1976), the newer plants are the larger and more modern facilities, utilizing newer and better equipment and technologies. The lower the average age of the plant and equipment, the less the accumulated depreciation expense. Because of the newer technology and scale benefits, it is expected that newer plant and equipment will be positively related to profitability. Manglamelietal (1985) indicated for most small business, the options available in the tax treatment of depreciable personal property (i.e., business property other than real estate) present a perplexing problem. The options seem to grow more complex each year and more changes in the laws governing depreciation deductions and investment tax credits.

According to Van Hoorn (1979), small businesses have insufficiently developed the necessary techniques and means to evaluate the strategic positions at regular intervals and to control it (cost allocations and budget analysis). Also, Stanford (1982) pointed out that lack of capital budget and reckless money management are causes of small business failure. Inadequate cost control is one of small business failure (Salvate, 1982).

## III. Research Methodology

1) Research questions used in this paper are as follow:

① Are scales of strategies such as advertising, capital intensity, debt, and newness of plant and equipment different ?

② Is the strategy-performance relationship across firm size homogeneous ?

2) Data which is used in this paper come from ALMANAL of Business and Industrial Financial Ratios (1990 Edition). This data base provides information for many strategic variables of companies in relation to size of asset in an industry.

3) Variables and their definitions are as follows.

| Variables | Definition |
|---|---|
| Advertising Intensity | Advertising / Sales |
| Capital Intensity | Assets / Sales |
| Debt | Total Debt / Total Assets |
| Newness of plant | Net Book Value of Plant/Gross Book Value |

4) This research uses multiple regression to examine the relationship between strategy and performance.

5) The number of group used in the research are nine : The size of Assets in ten groups are as follows:

| Total | C | D | E | G | H | I | K | L | M |
|---|---|---|---|---|---|---|---|---|---|
| All Groups | under 100 | 100 to 250 | 251 to 500 | 1001 to 5,000 | 5001 to 10,000 | 10001 to 25,000 | 50001 to 100,000 | 100,001 to 250001 | 250000 and over |

## IV. Discussion

This section discusses the results for intensity of advertising, capital, debt, and newness of plant and equipment, and for the relationship between the variables and profit. The following two tables represents the intensity of the four variables according to size distribution.

Advertising intensity of large firm group is 2.84 times as big as one of small business

Table 1.

| | C | D | E | G | H | I | K | L | M | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| Adv. Int. | .581 | .879 | .840 | .837 | 1.037 | 1.159 | 1.743 | 2.215 | 2.574 | 2.020 |
| Cap. Int. | N.A. | N.A. | 2.225 | 2.027 | 1.823 | 1.648 | 1.337 | 1.239 | .863 | 1.300 |
| Debt | 54.83 | 56.81 | 43.26 | 55.43 | 52.16 | 48.52 | 48.49 | 51.47 | 57.67 | 55.25 |
| Newness of plant | N.A. | N.A. | 3.650 | 2.764 | 2.764 | 3.512 | 3.740 | 4.236 | 5.488 | 4.035 |

Table 2.

| | Average of Froup C, D & E | Average of Group G, H & I | Average of Group K, L & M | Total |
|---|---|---|---|---|
| Adv. Int. | 0.766 | 1.011 | 2.177 | 2.020 |
| Cap. Int. | N.A. | 1.832 | 1.146 | 1.300 |
| Debt | 51.83 | 52.03 | 52.54 | 55.25 |
| Newness of plant | N.A. | 3.013 | 4.488 | 4.035 |

N.A.: Not available

groups and is 2.15 times as one of medium sized firms group and is bigger than one of Total's average. The result support ones of Morganosky (1988). Bigger firm size, the bigger scale of advertising intensity. Advertising intensity of group M is 4.43 times as big as one of group C. This implies that advertising investment of large firm to creat product differentiation is bigger than that of small firm.

Specific feature of capital intensity is that as firm size increase, the intensity decreases. The capital intensity of Group E which is one of small firm in size, is 2.6 times than that of the biggest size Group M. This implies that the scale of investment in proportion to sales in small firm is bigger than that of large firm. Only two groups (L and M) have higher capital intensity than Group Total.

Debt to asset ratio represents double U shape curve as follows: first U shape curve from C to Group G and second U shape curve from G group to Group M. The rate of three groups (D, G and M) is higher than that of Total. The ratio of Group E is the lowest among all groups, while the one of Group M is the highest and the one of Group D is the second highest.

However, none of three groups in the Table 2 has higher ratio than that of Total. Debt of Group E to that of Group M ratio is 1.333.

The investment for the newness of plant and equipment from Group G to Group H increases. Except Group E, namely, the bigger the firm size, the bigger the investment for the newness of plant and equipment. Group G to Group M ratio is 1.98, which is almost 2

times. However, only two groups, Group L and M are bigger than the Total (Figures in parentheses are t-values.).

Table 3 presents the association between strategies and profit in relation to firm's size.

Advertising intensities in Group G and I are significantly and positively related to profit, while those in Group H and K are significantly and negatively related to profit. The advertising intensities in other groups, C, D, K, L, M and Total are not significantly related to profit. This implies that the advertising-profit relationship is context-specific, Group by Group. Namely, the association is different according to size by size.

Capital intensity in Group Total is significantly and positively related to profit, while the intensity in all other groups is not significantly related to profit. The capital intensity in Group Total is consistent with the result of Porter (1976). Higher capital intensity contribute to increase of profit. However, the capital intensity in other groups is not likely to contribute to increase of profit.

Debt in the all groups except Group D is negatively associated with profit. Debt in Group G, I, L and M are significant. These results are not consistent with Hatten (1974)

Table 3. The association between strategies and profit in relation to firm's size

| Strategies | C | D | E | G | H | I | K | L | M | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| Advertising | −.0857 | −.1190 | −.5220** | .2836* | −.2997* | .4379*** | −.0103 | −.1237 | .1351 | .0329 |
| | (.226) | (.602) | (2.165) | (1.990) | (2.022) | (3.936) | (.060) | (.725) | (.752) | (.335) |
| Capital Intensity | N.A. | N.A. | .1070 | −.0506 | −.5152 | −.0724 | .1508 | .2581 | .2476 | .7371*** |
| | | | (.302) | (.314) | (.071) | (−.593) | (.669) | (1.557) | (1.199) | (6.167) |
| Debt | −.2468 | .1532 | −.1303 | −.2440* | −.2144 | −.2875** | −.2662 | −4.6449** | −.4562 | −.1281 |
| | (.736) | (.716) | (.540) | (1.707) | (1.189) | (2.425) | (1.374) | (2.395) | (2.517) | (1.409) |
| Newness of plant | −.2359 | −.0141 | .4734 | −.0148 | −.0325 | −.2208* | −.3521 | .1219 | .4929** | .1240 |
| | (.617) | (.066) | (1.339) | (.092) | (.178) | (1.988) | (1.654) | (.636) | (2.395) | (1.079) |
| $R^2$ | .069 | .035 | .334 | .134 | .098 | .341 | .226 | .244 | .368 | .472 |
| n | 11 | 29 | 20 | 48 | 51 | 62 | 32 | 33 | 27 | 70 |

*p < 0.10; **p < 0.05; ***p < 0.01

N.A.: Not Available

and Patton (1976). Liquidity problem which is leaded by debt in the almost all groups is likely to contribute bad profit.

Of all groups, newness of plant and equipment in only Group I and M is significantly related to profit. Their relationship in Group I is negative and the association in Group M is positive. The relationship in all group except the about two groups is not significant. The result in Group M is consistent with Bûzzell and Gale, whereas the result in Group E is consistent with Marshall.

## V. Conclusion

Despite of increasing literature on the strategy-performance relationship and size, respectively, few research concerning the impact of size in the relationship has been conducted. Using data base from ALMANAC of Business and Industrial Financial Ratios by Troy in 1990, this paper developes the association between strategy and profit in relation to size distribution. The results show that all relationship are context-specific according to size by size. This implies that the strategy-profit relationship should be considered according to situation.

Other important findings are that scale of all strategic variables is different according to size by size. Thus, the importance of situational strategic planning is increased. These results provides academic researchers and manager valuable information and insight.

The limitation of this paper is as follows:

1. This paper developes only four strategic variables. Further research needs to develop other variables.

2. Environment variables are not developed in this model. If they are connected with the model. Environmental problem can be discussed.

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