DIVERSIFICATION STRATEGIC CHOICES
AND ITS IMPLICATION ON FIRM PERFORMANCE

Hj. Dr. Sulastri*
H. Isnurhadi, PhD*

Abstract

A large number of studies about diversification conducted by many previous researches reveal different results. The phenomenon of company diversification in Indonesia occurred at the end of the eighties to the middle of nineties. However, this phenomenon was dominated by a small groups of large with the significant growth of unrelated businesses. Furthermore, some large companies that diversified at the end of the eighties, most of them has divested their businesses at the medio of nineties that caused most of the largest companies conducted restructuring.

Based on the literature review matched with the phenomenon above encourages the authors to conduct a study in order to clarify how the strategic choice implicates the related business or unrelated business toward market share, compensation, leverage, financial performance and shareholders.

A sample of 155 companies in manufacturing, trade and property are used in this study with crosssectional data of 2002. Multivariate analysis of variance with its assumption is used and data transformation is used for total assets. The test of model concordance analysis shows a level of significance > 0.05 to fulfill Manova assumption and equality of variance assumption test is performed for each variables to make sure that Manova analysisys could be applied.

This study reveals that all hypotheses about the implication of diversification on leverage are proven. It proves that leverage at unrelated business is greater than related business. The implication of diversification on market share shows that the more unrelated the business, the larger the market share. The implication of diversification on performance proves that the performance of related business is better than unrelate business. Shareholder value of related business creates larger market value than unrelated business.

Business phenomenon in Indonesia clarifies that diversification strategic choice of related business creates more value than unrelated business and it supports some previous studies.

Key words : related, unrelated business, diversification, leverage, market share, compensation, firm performance, share-holder value.

*Senior Lecturers at Faculty of Economics, Sriwijaya University, Palembang Indonesia
Correspoding author: H. Isnurhadi, PhD, email: isnurhadi@yahoo.com, Phone: +6281367703535

I. BACKGROUND

Ansoff (1965), Rumelt (1974), Hitt & Hokisson (1990) opine that diversification has a potential to create value. This opinion is consistent with economies of scope theory introduced by Clarkson (1983). Nayyar (1993) indicates that a company with many business units is able to gain economic advantages for example, assets use, reputation, internal fund allocation with cheaper cost. On the other hand, some studies by Shleifer and Vishny (1991), Matsusaka (1993), Lang and Stulz (1994), Berger and Offek (1996), Servaes (1996) find that diversification create no value. On the other side, Barney (2002) states that with resource based approach, diversification could be used as a source of sustainable competitive advantage.

Pangestu, Atje and Mulyadi (1996) describe that the creation of conglomeration (unrelated diversification) in Indonesia because of the liniency in getting loan from bank and bank regulation.
This opinion is supported by the preliminary of this study which shows that the unrelated business companies have higher level of debts compared to other form of diversification (DataBase BEJ 2002 Interim Report, processed). This matter as an indication that companies in Indonesia in general tend to focus on high growth in short period of time. Pengestu et al (1996) also state that multinational companies focus more on core business and in general are more successful in global competition.

The dynamics of manufacturing companies in Indonesia during 1993-2001 grew fluctuatingly. The growth of that industry is displayed in Table 1. Table 1 shows that the total of large and medium during 1993-2001 change slightly. The potential of in and out of the company into the industry is the reflection of the dynamism of competition in that industry (Porter 1997). The dynamism could affect diversification strategic choices (Dess and Beard 1990, Keats and Hitt 1988).

The findings that the failures of diversification in creating value needs further study because this findings is inconsistent with the theory of economies of scope. This theory describes that multibusiness companies could gain economic advantages such as the uses of common assets, allocating fund for the purpose of reducing or eliminating business risk, or internal transaction which is possibly reducing costs amongst business units (Clarkson 1983, Nayyar 1993).

<table>
<thead>
<tr>
<th>Year</th>
<th>Come in to New Industry</th>
<th>Out of Industry</th>
<th>Change in Total Manufacturing Companies</th>
<th>Total Manufacturing Companies</th>
</tr>
</thead>
<tbody>
<tr>
<td>1993</td>
<td>1996</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1994</td>
<td>2213</td>
<td>1359</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1995</td>
<td>3627</td>
<td>1401</td>
<td>2226</td>
<td>21551</td>
</tr>
<tr>
<td>1996</td>
<td>3444</td>
<td>1988</td>
<td>1456</td>
<td>22997</td>
</tr>
<tr>
<td>1997</td>
<td>1883</td>
<td>1234</td>
<td>649</td>
<td>22386</td>
</tr>
<tr>
<td>1998</td>
<td>1706</td>
<td>2641</td>
<td>-936</td>
<td>21243</td>
</tr>
<tr>
<td>1999</td>
<td>1718</td>
<td>1071</td>
<td>647</td>
<td>22070</td>
</tr>
<tr>
<td>2000</td>
<td>1253</td>
<td>1149</td>
<td>104</td>
<td>22174</td>
</tr>
<tr>
<td>2001</td>
<td>1498</td>
<td>1822</td>
<td>-324</td>
<td>21396</td>
</tr>
</tbody>
</table>

Source: Central Bureau of Statistic, 2002.

II. LITERATURE REVIEW

2.1. Classification of Diversification

Ansoff followed by Hitt & Hoskisson (2001, p. 235) uses the term of diversification as level and type of diversification. Rumelt followed Wrigley (1970) classified diversification based on relation of relatedness amongst business units by measuring the level of related ratio and vertical ratio using the term degree of diversification (Rumelt 1974, p. 29-31). Rumelt, R. (1974) found in his study that there were some differences amongst various diversification. Rumelt (1974) tried to define and modify the measurement of diversification concept used by Wrigley (1970). The combination of Wrigley (1970) and Rumelt (1974) is classified as major category as follows:

1) Single business, means that a firm basically has a commitment toward one business. Amongst unintegrated business vertically has vertical ratio less than 0.7 (VR < 0.7). Single business firm is included the one with Specialization Ratio 0.95, or amongst vertical integration with VR ≥ 0.7, which owns end product from this business contributing 95% or more of total revenues.

2) Dominant Business is a firm that diversify widely but the revenue is still determined by single business. Amongst nonintegrated vertically firm (VR < 0.7), the specialization ratio is larger or equal 0.7 but less than 0.95 is categorized as dominant business.
Related Business is a firm that is not vertically integrated having specialization ratio less than 0.7 and if diversification is related between new activity with old activity gives related ratio equals 0.7 or more.

Unrelated Business is a firm that is not vertically integrated, having diversification without connection between new business and old business in other words a firm that is defined as having related ratio less than 0.7.

2.2. Diversification Implication on Leverage
Barney (2002) shows the source of competitive advantage on financial asset adalah capital structure, retained earning and free cash flow. Modigliani dan Miller (1958) theory of Capital structure says that capital structure could increase value and does not affect performance, bahwa struktur modal daet firm performance in relatively perfect market. This theory is consistent with the theory by Jensen dan Meckling (1976) and Myers (1997) that say that a firm with relatively higher leverage tends to reduce the level of investment and maximize firm value. This argument is supported by empirical study (Safieddine and Titman 1999). The study indicates that investment expenditure negatively affect leverage. However, this argument is inconsistent with Rose (1977) which stated that optimism toward future productivity will increase leverage. Furthermore, Jensen also said that debt will increase the motivation of management. The study by O’Brien (2003) reveals the higher capital structure the higher the profitability but the interaction between capital structure and innovation affect performance negatively.

Based on the argument above, two hypotheses are generated as follows:

Hypothesis 1: The higher the level of diversification the higher the leverage.
Hypothesis 2: There was difference relationship of diversification and leverage based on firm size.

2.3. Diversification Implication On Executive Compensation
Hokisson and Hitt (1990) describes theoretically that executive compensation is a moderating variable that influence the relationship between managerial motivation dan diversification strategy. Broussard, Buchenroth and Pilotte (2004) on the other hand, shows that there is a relationship amongst CEO incentive, free cash flow and investment. This findings shows that there is a sensitivity toward executive incentive (pay-performance) could eliminate the complicatedness of agency toward free cash flow. Furthermore, the relationship between free cash flow and investment will be stronger for a firm with low pay-performance sensitivity and the relationship will be weaker for high pay-performance sensitivity. Incentive sensitivity of CEO and incentive sensitivity (pay-performance) contributes on reducing underinvestment toward free cash flow from managerial responsibility.

Based on the description above, the following hypotheses are generated:

Hypothesis 3: The higher the level of diversification the higher executive compensation.
Hypothesis 4: There is difference relationship of diversification and compensation based on firm size.

2.4. Diversification Implication on Market Share
Catry and Chevalier (1994) state that market share is a strategy. An approach to market share is by looking at the relationship between product life cycle and the position of the firm in the market. Market share diagnosis is one way of adaptation in conducting change in the market. An alternative to market share strategy could be in the form of increasing investment, maintaining market position and divestment.

Barney (2002) stated that a firm diversify with anticompetitive motivation by exploiting market share. However, some researches (Bourantas, Dimitris and Mandes 1987, Szymanski, David M, Bharadwaj and Varadarajan 1993) have indicated that there is relationship between market share and profitability. On the other hand, Armstrong and Gree (2005) in their empirical study shows that a goal with competitor orientation dan market share reduce profitability. Diversification could be viewed from
industrial economic theory that says market share will affect company position in the industrial structure through market power. Companies diversify with motivation to boost market power by doing aquisition, merger, conglomerisation which change industrial concentration toward oligopoly and monopoly and in the end change the industry behavior and performance (Hasibuan, 1993). To investigate how the level of diversification influence market shares, two hypotheses are generated:

**Hypothesis 5**: The higher the degree of diversification, the larger the company’s market share.

**Hypothesis 6**: There is difference in the relationship between diversification and market share based on company size.

2.5. Diversification Implication on Firm Performance

Markides (1993) states that there is an optimal limit (but companies could do unlimited ing diseconomies diversification before reaching diseconomies, particularly managerial diseconomies of scale. The same opinion is also introduced by Montgomery and Wernerfelt (1988) where companies have different level of optimalization toward degree of diversification because different human resource which produce different performance (Mukherjee, 1998). And Palich et al (2000). On the other hand, Datta, Rajagopalan (1991) reports that the relationship between diversification and performance is inconclusive menunjukkan. It is different from Hokisson (1990) who indicates that the relationship between diversification and performance is nonlinear. Based on this discussion, two hypotheses are generated as follows:

**Hypothesis 7**: The higher the degree of diversification, the lower the firm performances.

**Hypothesis 8**: There is difference in the relationship between diversification and shareholder value based on firm size.

2.6. Diversification Implication on Shareholder Value

Jensen (1986) opines that diversification gives benefit to managers but not creating value for shareholders. Shareholder value can be inferred from the higher market value (market capitalization). Shleifer and Vishny (1991), Berger and Ofek (1996), Sarvaes (1996) find companies that focus on increasing market value and stock return. Myers and Majluf (1984) and Hadlock (2001) show that firm diversification give negative signal in the market. This matter is indicated when firm offer its stock for diversification purpose, it is found that market views it negatively compared to focus firms. This finding is consistent with the argument that diversification reduce shareholder value. Based on this discussion, the following hypotheses are generated:

**Hypothesis 9**: The higher the degree of diversification, the lower the shareholder value.

**Hypothesis 10**: There is difference in the relationship between diversification and shareholder value base on firm size.

III. METHODOLOGY

The sample of this study is manufacturing, trading and property companies that sell their stocks in Jakarta Stock Exchange (JSX) in the year 2002. The total sample is 150 companies. Purposive sampling method is employed with some considerations:

1) Conducting diversification from 1990 to 2002
2) Have been public companies when doing diversification
3) The data is complete
4) Choosing different ISIC code for every firm that doing diversification at the same year for the purpose of different environment that exist.

The nature of the data is quantitative and it is secondary data. The sources of the data are Central Bureau of Statistis, JSX and some corporate news and companies’ publication.

To test the empirical study, the technique of analysis of multivariate analysis of variance is used. In this test the independent variable of DIVERSIFICATION is categorical variable that influence more than one numerical dependent variable. The Manova equation model used is as follows:

\[
Y_1 + Y_2 + Y_3 \ldots \ldots Y_n = X_1
\]

Metrik Non Metrik
The test equation could be written as follows:

\[
\text{Leverage} + \text{Kompensasi} + \text{MarketShare} + \text{ROI} + \text{KapitalisasiPasar} = \text{DIV} + \text{SIZE}
\]

The above equation could be solved with multivariate analysis of variance (Hair 1995).

### TABLE 2
**DEFINITION AND VARIABLE MEASUREMENT**
**EMPIRICAL MODEL (DATA CROSS SECTION)**

<table>
<thead>
<tr>
<th>Implikasi Diversifikasi</th>
<th>Implikasi diversifikasi terhadap semakin luasnya pangsa pasar perusahaan terhadap total penjualan industri dalam kelompok ISIC 5 digit yang sama</th>
</tr>
</thead>
<tbody>
<tr>
<td>Market Share MSHARE</td>
<td>Jumlah biaya yang dibayarkan terhadap eksekutif sebagai kompensasi dan renumerasi dewan direksi dan komisaris dalam bentuk kas</td>
</tr>
<tr>
<td>SIZE</td>
<td>Kemampuan perusahaan dalam memenuhi total kewajiban, Leverage juga sebagai ukuran struktur modal antara hutang dan total aktiva (external capital)</td>
</tr>
<tr>
<td>Kompensasi COMPEN</td>
<td>Implikasi diversifikasi terhadap peningkatan hutang Sebagai proxy semakin besarnya penggunaan data eksternal atau internal market</td>
</tr>
<tr>
<td>Leverage (LEV)</td>
<td>Implikasi diversifikasi terhadap semakin besarnya pengawasan oleh eksekutif</td>
</tr>
<tr>
<td>Return On Investment ROI</td>
<td>Implikasi diversifikasi terhadap semakin besarnya kompensasi dan renumerasi eksekutif Sebagai proxy semakin besarnya pengawasan oleh eksekutif</td>
</tr>
</tbody>
</table>

\[
\text{MSHARE} = \frac{\text{Sales}}{\text{SalesInd}} \times 100\%
\]

\[
\text{LEV} = \frac{\text{Hu} \times \text{g}}{\text{TotalAktiva}}
\]

\[
\text{ROI} = \frac{\text{NetIncome}}{\text{Totalassets}} \times 100\%
\]

- Barney (2002)
- Keats dan Hitt (1988), (Hitt & Hokisson 2001)
- (Barney 2002)
- Porter (1999)
- Sakakibara (1997)
- Rose (1977)
- Jensen (1986)
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>terhadap kinerja perusahaan sebagai proxy pengukuran kinerja perusahaan</td>
<td>CAPM = VolomePerd aganganSah am * H arg aSaham</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**DIVERSIFIKASI DIV**

<table>
<thead>
<tr>
<th>Klasifikasi Diversifikasi</th>
<th>(1) Single business : perusahaan secara mendasar memiliki komitmen terhadap satu bisnis. Perusahaan single business diukur dengan Spesialization Ratio &gt; 0,95 atau diantara integrasi vertikal dengan VR &gt; 0,7. yang memiliki produk akhir dari bisnis tersebut memberi kontribusi 95% atau lebih dari revenue</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single Business SB = 1</td>
<td>(2) Dominant Business : perusahaan yang melakukan diversifikasi secara luas akan tetapi pendapatan masih ditentukan oleh bisnis tunggalnya. Diantara perusahaan yang tidak terintegrasi secara vertikal (VR &lt; 0,7) tersebut dengan specialization ratio lebih besar atau sama dengan 0,7 tetapi kurang dari 0,95 termasuk dalam dominant business.</td>
</tr>
<tr>
<td>Dominant Business DB = 2</td>
<td>(3) Related Business : diversifikasi perusahaan yang tidak terintegrasi secara vertical yang memiliki specialization ratio kurang dari 0,7 dan jika diversifikasi dihubungkan antara aktifitas baru dengan aktifitas lama memberikan related ratio sama dengan 0,7 atau lebih.</td>
</tr>
<tr>
<td>Related Business RB = 3</td>
<td>(4) Unrelated Business : perusahaan yang tidak terintegrasi secara vertical yang memiliki diversifikasi tanpa berkaitan antara bisnis baru dengan bisnis yang ada atau perusahaan yang didefinisikan memiliki related ratio kurang dari 0,7.</td>
</tr>
</tbody>
</table>
IV. ANALYSIS AND DISCUSSION

4.1. Descriptive Analysis

The results of descriptive statistic on the cross-sectional data of 155 samples are presented in the following.

**Leverage:** the mean of leverage (Debt to Equity Ratio) is 0.49 for single business, 0.53 for dominant business, 0.58 for related business and 0.67 for unrelated business. It reveals that the higher the degree of diversification the larger the leverage.

**Executive compensation and remuneration:** the mean of compensation is Rp4.692 billion per year for single business; Rp5.969 billion per year for dominant business; Rp7.043 billion per year for related business and Rp9.526 billion per year for unrelated business. If we look at the average ratio of compensation per executive for single business is Rp438.73 million per year for dominant business is Rp528.81 million per year for related business is Rp910.21 million per year. Descriptive statistics reveals that the higher the degree of diversification, the average of executive cost increases.

**Market Share:** average market share for single business is 8%, for dominant business is 6%, for related business is 5% and for unrelated business is 0.23%. This figures indicate that the market share for unrelated business is the largest. However, the market share for the single business is larger than dominant and related business. This finding shows that market power strategy tends to occur at unrelated business.

**Firm Performance:** average firm ROI for single business is 7.04%, for dominant business is 3.53%, for related business is 4.99% and unrelated business is 3.8%. This finding proves the performance of single business firm generate better performance compared to another three categories. However, the performance of unrelated business is the lowest amongst them. Hence, it can be concluded that diversification performance takes the form of nonlinear curve. The degree of diversification for certain limit increase its value but overdiversification decrease its value. The smallest ROI is – 13.23% for unrelated business, followed by single business –9.95% while the largest ROI is 25.65% for related business and single business 24.10%.

**Firm Value:** shareholder value proxied by market capitalization. Average value of market capitalization for single business is Rp244,726 billion per year, dominant business is Rp1,787.798 billion per year, related business is Rp445,213 billion per year, and unrelated business is Rp857,41 per year. It indicates that the largest market capitalization is dominant business whereas the smallest is single business. Market capitalization for related business is lower than unrelated business. This is the reflection of the relationship between diversification and shareholder value also is in the form of nonlinear curve.

4.2. Parameter Estimation

4.2.1. Test of Between Subject Effects

Test of between subject effects is to test the influence of univariat ANOVA for every diversification classification toward all dependent variables. The result shows that the influence of diversification on market share is significant at 5% level while the others are significant. It means that market share is different for diversification group. For Size variable indicates Leverage (Debt To Equity) is significant at 1% level, CAPM (market value) at 1% level and market share also significant at 1% level. This indicates that all variables above are different for every Size group or firm size (low, moderate and high size).

Tukey HSD and Bonferroni test is to test the difference for every group combination. Tukey HSD test shows that there is difference in LEVERAGE (debt to total assets) between single business and unrelated business as much as ~18.68%. It means that average leverage for unrelated business is higher than single business while other groups is not different significantly. Furthermore, for variable ROI though descriptively shows that the relationship and performance is nonlinear meaning that the higher the degree of diversification is the lower the performance but it is not found significant difference amongst diversification groups. For compensation, there is no significant difference amongst diversification groups. For CAPM (market capitalization) there is significant difference
between single business and dominant business. For variable MSHARE there is significant difference between single business and unrelated business and between dominant business and unrelated business at –50.69% dan –37.10%.

Group based on firm size (SIZE), multiple comparisons test shows there is significant on LEVERAGE variable between small firm (LOW SIZE) and large firm (HIGH SIZE) on average at –25.12%. It means large companies tend to have larger debt compared to small companies as much as 25.12%. Between MODERATE SIZE and HIGH SIZE there is difference in LEVERAGE as much as –6.67% but between LOW SIZE and MODERATE SIZE is not significant.

For ROI (Return On Investment) and COMPEN (Compensation) there is no significant difference between large companies and small companies. For MSHARE there is significant difference for every SIZE group. Market share difference antara LOW SIZE and MODERATE SIZE is as much as –43.29%. It means that MODERATE SIZE has larger market share as much as 43.29%. The difference between LOW SIZE and HIGH SIZE as much as –82.35%. It means that HIGH SIZE has market share that is much larger than LOW SIZE as much as 82.35%. The difference between MODERATE SIZE and HIGH SIZE as much as –39.07%. It means that HIGH SIZE has market share 39.07% larger than MODERATE SIZE. From the discussion above, it can be concluded that the larger the companies the larger the market share.

For (Market Capitalization) there is a significant difference in SIZE group. The difference between LOW SIZE and MODERATE SIZE is –41.74%, between LOW SIZE and HIGH SIZE is –90.71%, and between MODERATE SIZE and HIGH SIZE is –48.97%. This discussion concludes that the larger the firm tends to create less value.

V. CONCLUSION AND IMPLICATION

5.1. Conclusions

Based on the Manova test, some conclusions can be addressed as follows:

1. There are significant differences for each diversification groups toward Market share but Leverage, Compensation, ROI and market value is insignificant. However, if it is grouped into Size (low, moderate dan high size), there are significant difference toward Leverage (Debt To Equity) ; CAPM (market value) and MARKET SHARE for each Size group.

2. The marginal estimation mean at the plot profile indicates:
   a. The higher the degree of diversification, the higher the leverage or the more unrelated business, the higher the leverage and large companies (high size) have higher leverage compared to moderate and low size.
   b. The relationship between diversification and total cost of compensation take form of nonlinear curve meaning the effect of diversification with total cost of compensation has optimal limit dan the higher the degree of diversification, total cost of compensation declines. In contrast, if we look at cost of compensation per executive (per person) indicates the higher the degree of diversification, the higher the cost of individual executive. If we group them based on size of the firm, it indicates that cost of compensation at high size companies is larger than moderate and low size companies.
   c. The relationship between diversification and market share shows that the higher the degree of diversification, the larger the market share. If it is controlled by size, of the firm, reveals that high-size companies have larger market share than moderate and low-size companies.
   d. The relationship between diversification and performance is in the form of nonlinear curve. Diversification performance has optimal limit and the higher the degree of diversification, the lower the performance. If we control the equation with size, high-size companies the higher the diversification the higher the performance.
   e. The relationship of diversification with market value displays a nonlinear curve. It means that the higher the degree of diversification, the lower the market value. Controlled by the size of the company, the performance decrease occurs at moderate and low size-companies.
5.2 Implications
The finding of this study supports *agency theory*. The empirical test result is also consistent with the findings of Chatterjee and Wernerfelt (1988) and Barton and Gordon (1988). The finding related with diversification and renumeriation is in line with the findings of previous researeches done by Byrd , Parrino and Pritsch, 1998; Broussard, Buchenroth and Pilotte, 2004: Rose, N.L., and Shepard, A., 1977. Furthermore, in relation with the effect of diversification on market size, this study is in support of studies by Barney (2002) which argued that the rationality of the firm in conducting diversification with the anticompetitive motive by exploiting market share. This finding is consistent with Slater and Narver (1994, 1990), Bourantas, Dimitris and Mandes (1987), Szymanski, David M, Bharadwaj and Varadarajan (1993) but is in contrary with Amstrong and Gree (2005). In term of impact of diversification on performance, this study supports Dobrev and Carrol (2003), Barney (2002), Hannan and Freeman (1997) and Porter (1995). Finally, the finding of this study about the effect of diversification on shareholder value is consistent with the findings from previous studies such as Sheleifer and Vishnya (1991), Berger and Ofek (1996), and Sarvaes (1996) supports Palich, Cardinal and Miller (2000) which report that the relationship between diversification and performance is in the form of nonliner curve.

**REFERENCE**

Catry and Chevalier (1994)
Hasibuan, Nurimansyah, 1993 ; Ekonomi Industri, Persaingan, Monopoli dan Regulasi, LP3ES.


Pangestu, Atje, Mulyadi, 1996; Transformasi Industri Indonesia Dalam Era Perdagangan Bebas, *Centre For Strategic and International Studies Jakarta*.


Szymanski, David M, Bharadwaj and Varadarajan 1993
