

# Strategy, Marketing Effectiveness and Firms Performance

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*Abstract:* In the global era, firms should have a competitive advantage strategy, since their business environment is very competitive. Miles and Snow (1978) divide a firm's strategy into four types, namely prospector, defender, analyzer and reaction. Prospectors and defenders are in the two extreme sides. We examine differences between marketing effectiveness of prospectors and defenders and its association with accounting performance. The sample of this research consists of 54 firms, which are 27 categorized as prospectors and 27 as categorized as defenders. Three hypotheses are examined: (1) the marketing effectiveness of prospectors is higher than defenders; (2) marketing effectiveness is associated positively and strongly with accounting performance; and (3) there is an association between strategy and accounting performance. The result of this research supports the argument that prospectors have more marketing effectiveness than defenders and the marketing effectiveness is associated with accounting performance. On the contrary, this research found the association between strategy and accounting performance does not exist.

*Keywords:* prospector, defender, marketing effectiveness and accounting performance

When the market competition is so high, a sound strategy is needed to drive a new market since current market can not be expected to sustain the competition anymore. In this situation Marketing has an important role to grow a company as any strategy will be meaningless if a company can not sell its products. Therefore, a company should be able to match its strategy with its capability to sell products.

Miles and Snow (1978) divide companies into three typologies of strategies, namely prospector, defender, reactor, and analyzer. Those strategies are built on an adaptive cycle which can be fitted to a company environment. Porter (1985) splits strategies into three: cost leadership, differentiation, and focus. Both proposed strategies by Miles and Snow (1978) and Porter (1985) are complementing each others. For example, prospector which tends to observe

market opportunities and conduct much research development (R&D) is aligned with Porter's differentiation which creates unique products that can be differentiated from others.

Prospector and defender strategies both are extreme strategies compared to two other strategies. A prospector, which emphasis on continuous product innovation, is always aggressive to search market opportunities and perform much R&D. On the contrary, a defender limits production scale and cost, hence defender companies tend to be cost efficient or cost leadership companies.

Kotler (2005) argues that in competitive business era, companies should shift themselves from market driven to be market creators (market driving). Woodside et al. (1999) tested the relationship between company strategies and market capability. He found that prospectors, analyzers, and defenders have higher level of marketing capability than reactors. Additionally prospectors have better marketing capability than defenders. By using 93 samples (27 prospectors, 31 analyzers, 21 defenders, and 14 reactors), Woodside et al. (1999) found that typologies

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of strategy has low correlation with performance. Anderson et al. (1997) found positive contemporaneous on the association between customer satisfactions and return on investment (ROI) for manufacturing companies and low association for service companies.

Based on the research of Woodside et al. (1999), this research is aimed at: (1) testing the association between prospector and defender strategies and marketing effectiveness; (2) testing the association between marketing effectiveness and organization performance; (3) testing the relationship between typologies of strategy and organization performance.

The differences between Woodside, *et al.* (1999) research and this research are: first, Woodside et al. use 4 typologies of Miles and Snow, however this research uses 2 extreme typologies namely prospector and defender only; second, Woodside et al use Lisrel to analyze data since primary data and 20 marketing variables are used, on the contrary this research uses secondary data and one variable which describes significant marketing capabilities of Indonesian companies, namely marketing cost efficiency. The marketing cost efficiency is measured by sales on marketing cost ratio. Marketing cost is surrogated by advertising and promotion costs, considering those costs are the most significant costs compared to other marketing costs. This research is a preliminary study by using secondary data. It is hoped that the results of this research will not differ from previous study which uses primary data (see Woodside et al., 1999; Andersen et al., 1997; and Ittner et al., 1998).

### Theoretical Framework and Hypothesis Development

To categorize strategies into typologies proposed by Miles and Snow (1978), this research uses Company Life Cycle Concept as used by Anthony and Ramesh (1992), Pashley and Philippatos (1990), and Habbe (2001).

### Strategy Typologies

Based on adaptive cycle, Miles and Snow divide strategies into 4 typologies which it means that strategies can be changed in order to be fit with the environment. Those typologies are:

**Prospector:** a company with this typology will continuously seek market opportunities and perform R&D. This typology of a company will create changes and uncertainties; hence it tends to be less efficient.

**Defender:** this typology of company has a narrow market, since its top manager has high expertise to limit its market territory and no desire to expand new opportunities, thus a defender tends to be very efficient.

**Analyzer:** this kind of company operates two strategies. Not only limiting market, a company will also make changes. In a stabile segment, this kind of company operates routinely and efficiently by performing formulated structures and processes. However, in more turbulent market, the manager will notice competitor's ideas and adopt them quickly.

**Reactors:** The managers of reactors often perceive that changes and uncertainties have occurred in their business environments, but they tend to be less effective in responding such changes. Therefore, such typology of companies have inconsistencies in their strategies and structures, so they seldom to perform adjustments.

### Company Life Cycle

Pashley and Philippatos (1990) divide life cycle of a company into 4 phases, namely pioneering, expansion (growth), mature, and decline.

**Pioneer (Introduction).** In this phase, a company has low market share, market power, and sales volume. As a result, loss is common because start-up costs are very high.

**Expansion.** Increasing sales, profit, and liquidity are characteristics of a company in this phase. Dividend is also paid. Equity financing increases relatively to debt financing, because profit is earned and debt is paid. Consequently, a company begins to diversify its products.

**Maturity.** In this phase, sales are on the top but profit starts to decline because of high competition. Market power and market share decline and a firm expand its business.

**Decline.** A company starts to face sales problems since it declines significantly. Product demands decay and dividend ceases. If the company does not perform efficiency and limits its scale of production,



the company tends to be bankrupt. Porter (1985) argues that each phase will affect strategies, competition, and performance.

### Prospector and Defender

Defender and Prospector are two different extreme typologies and both tend to be opposite each others. Related to life cycle, prospector resembles to Pioneering and Expansion phase. Because of that, a company in Pioneering and Expansion phase will try to seek market share and diversify its products, so that a company will need a large amount of fund to increase manufacturing capability, perform R&D, distribute and market its products (Grant, 1995).

Competitive advantage can be defined as doing something differently and better compared to what competitors do. The differences can be based on uniqueness of products, distribution system and marketing strategy (Porter, 1985). To reach competitive advantage, Prospectors will require higher investment in R&D, human resource development than Defenders (Ittner, et.al., 1997). Prospectors will be the best strategy in the Pioneering and Expansion phase.

In the Maturity and Decline phase, a company will face a transformation from product differentiation to cost based (Grant, 1995). Cost advantage is the success which can be resulted from economic scale of production, low-cost input, and low overhead costs. Hence the best strategy in those phases is cost leadership (defender strategy).

This research uses only prospectors and defenders instead of all strategies proposed by Miles and Snow as used by Woodside (1999), since prospector is the opposite of defender and the data of analyzer and reaction are difficult to collect in Indonesia.

### Marketing Activities

Marketing activities can be divided into order filling or logistics activities and order-getting activities. Order filling activities are activities occur after and on the time when orders are received. While order-getting activities are related to activities to obtain orders and before orders are received. Anthony and Govindarajan (2004) explain that order getting activities are actual activities of marketing. Activities of marketing include training and sales supervising

activities, advertising and promotion; therefore measurement and control of marketing activities are difficult to perform (Anthony and Govindarajan, 2004: 162).

Hence different marketing activities have different characteristics and measurements. Some of costs of order filling activities are engineered costs that result in easier measurement Those activities commonly evaluated by comparing their budget and actual costs and their effectiveness are related to sales. While costs of order getting activities tend to be *discretionary* costs, so that their measurements depend on company's policies.

In this research, marketing activities are focused on matters related to obtaining sales. The marketing activities used in this research are limited to advertising and promotion activities, since those cost of activities are the major parts total marketing costs.

### Efficiency and Effective

The concept of input, output, and cost can be explained through the measurement of efficiency and effective (Anthony and Govindarajan, 2004: 149). Efficiency is the ratio of input and output. On the other hand, effective is the ratio of output and the objectives to be achieved (Anthony and Govindarajan, 2004: 150). The result of this measurement is relatively difficult to measure compared to efficiency measurement.

### Hypothesis development

Relationships between hypotheses are described on following research model (see figure 1). According to Grant (1995) a company which is in introduction and growing phase needs enormous amount of fund for working capital, marketing, and distribution. Introduction and growing phase are identical with the typology of a company which using prospector strategy. Woodside et al. (1999) found that company's marketing capability is prospector > analyzer > defender > reactors. Based on this theory, we can conclude that capability of Prospector Company is higher than Defender Company. The logic of this first hypothesis is that company's ability of prospector is bigger than that of defender in finding and developing new products and opportunities to seek a market

share. Therefore, as described in figure 1, proposed hypothesis is as follow:

H1 : Marketing effectiveness of company which using prospector strategy is higher that company which using defender strategy.

Andersen, et al. (1997) found a positive relationship between costumer satisfaction and company's performance. Kotler (2005) stated that effective marketing can create profits, while Woodside et al. (1997) found positive relationship between marketing capability and organization performance. Other factors such as fortune can influence organization performance (Kotler, 2005). The majority of empirical evidence supports the view that organizations which have better marketing effectiveness also have better performance compared to their competitors (Clifford and Cavanagh, 1985; Saunders and Wong, 1985; Buzzell and Gale, 1987; Baker and Hart, 1989) in Woodside, et al., 1999. Hence, the second proposed hypothesis is as follows:

H2 : Marketing effectiveness in company which using prospector and defender strategy is positively related to company performance.

Habbe (2001) found that there is no relationship between prospector and defender strategy with organization performance. Woodside et al. (1999) stated that there is a weak relationship between strategy typologies and company performance. Olson (2005) found that there is strong relationship between organization performance and typologies of strategy, but should be matched with certain typologies of industries. Hambrick (1983) found that ROI of defenders is bigger that that of prospectors, since prospectors respond the changes of the environment. Hence, third proposed hypothesis is as follow:

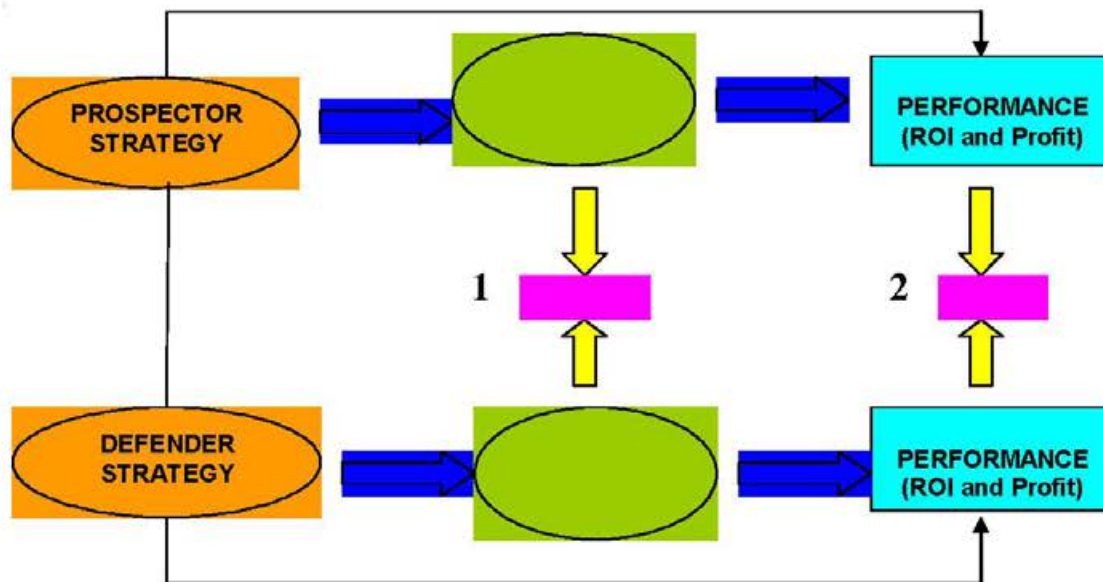
H3 : prospector strategy has greater impact on performance than defender strategy.

**Research method**

This part will explain sample selection, research method, and data analysis. Sample selection will also be explained in its relation with strategy typologies of prospector and defender.

**Sample criteria**

Samples used in this research are chosen using the following criteria:



Modification from Woodside et al.

Figure 1. Research model



- Data was obtained from financial statement of listed companies at "Bursa Efek Jakarta" from 1998-2005. Prospector and defender samples need relatively extensive data to obtain representative sample.
- Data which are required for this research are data from manufacturing company, because this research needs capital expenditure and research and development data, which can only be found in manufacturing company.
- Companies which is included in this research must publish their financial statement with the closing date at 31 December and present their financial information using Rupiah currency
- Data about profit margin, ROI, and employees quantity are obtained from ICMD

### *Prospector and Defender Sample Selection*

Prospector and defender proxy (according to research by Habbe, 2001, Ittner, 1997, and Kallapur, 1999) is determined with four proxies, namely:

- Employee quantity divided by total sales
- Price to book value ratio
- Capital expenditure divided by total assets
- Capital expenditure divided by total assets

Value of the four variables is analyzed using common factor analysis:

### **Research Model**

This research describes correlation between prospector strategy, defender strategy, and marketing effectiveness variable as intervening variable (a variable which is functioned as independent variable and helping in describing dependent variable) toward company performance.

### **Measurement Variable**

To help in analyzing data, proxies of these research variables are measured as follow:

Prospector and defender strategies are measured using indicator:

- $KARPEN = \text{Total employee quantity} / \text{Total Sales}$
- $PBV = \text{Market book value} / \text{book value equity} \rightarrow \text{market price per stock divided by book value per stock}$
- $CETA = (CE_t - CE_{t-1}) / TA_{t-1} \rightarrow \text{capital expenditure for year t deducted with capital expenditure at year t-1 and then divided with Total Assets at year t-1}$
- $CEMVE = (CE_t - CE_{t-1}) / MVE_{t-1}$

After calculated, indicators above will be analyzed, two factors aggregated and then divided into

**Table 1. Sample Selection**

<b>Description</b>	<b>Amount</b>
Listed companies in Jakarta Stock Exchange	323
Non Manufacturing-Companies	(167)
Closing date not 31 December	(7)
Financial statements are not presented in rupiah currency	(10)
Companies start listing in Jakarta Stock Exchange at 1999 or after	(13)
Incomplete data	(28)
Companies are not categorized as prospector and defender companies	(38)
Chosen as samples (33 prospector companies and 27 defender companies)	60
Data are not complete for prospectors	(6)
Final samples (27 Prospector and 27 Defender)	54
Testing period is 2001-2005 which means that total sample are 270 firm years (135 firm-years for prospectors and 135 firm-years for defenders)	

three quintiles. The first highest quintile shows prospector strategy and the third quintile shows defender strategy (Habbe, 2001). Result of the sample selection is as figured in the Table 1.

Marketing effectiveness will be divided into proxies based on advertising costs and sales promotion costs as those costs are the major parts of marketing costs. It's assumed that the more effective the strategy, the higher the sales. This condition is appropriate with Kotler's (2005) opinion. Therefore, marketing effectiveness will be measured as:

$$\text{Marketing Effectiveness} = \frac{\text{Sales}}{\text{Marketing Cost}}$$

### Marketing Cost

Company performance can be measured using *Return on Investment (ROI)* and profit. ROI is calculated by dividing net profit before *extraordinary item* by total assets. Net profit used in this research is net profit after tax.

### Data Analysis

SPSS version 13 is used in analyzing data. Hypothesis 1 (H1) is tested using difference test (t-test) while hypothesis 2 and hypothesis 3 (H2 and H3) are tested using regression analysis. H1 is used to test marketing effectiveness differences between prospector and defender strategy. H2 is used to test relationship between marketing effectiveness and company performance, as intervening variable. Last test, H3, is used to test influence of prospector and defender strategy toward company performance. Within this research, difference test (t-test) is also used to see the difference between marketing effectiveness and company performance (part of H2).

## Results

### Descriptive Statistic

In this research, descriptive statistic gives information about mean, standard deviation, and maximum and minimum number from each variable characteristic.

Based on Table 2, it can be explained that prospector strategy tends to possess higher performance (ROI and profit) and higher marketing effectiveness compared with defender strategy. This condition is fit with the theory regarding typology of prospector and defender strategy which was explained by Miles and Snow (1978). Snow and Hrebiniak (1980) in Conant et al. (1990) found that marketing effectiveness in prospector strategy has the highest level among other strategy types. Therefore, research data can represent characteristics of each variable.

### Hypothesis Testing

Result of statistic test shows that there is a significant difference of marketing effectiveness between companies that have prospector strategy typology and companies that have defender strategy (H1). Accordingly, the hypothesis 1 which says that marketing effectiveness of prospector companies is higher than defender companies is not refused. On the other words, this hypothesis is significantly proved (see table 3, t value 0,073 and significance in level 5%). As an addition, this research result is consistent with test which carried out by Woodside et al. (1999) and Conant, Mokwa and Varadarajan (1990). The result is also consistent with Porter's (1985) theory and Grant (1995), which said that Prospector Company has bigger fund than Defender Company.

This result is consistent to the fact that prospector companies are analogue to be companies in the

Table 2. Descriptive Statistic

Variable (n=135)	Mean	Standard Deviation	Maximum	Minimum
Defender (ROI)	-5.0284	13.22954	-2.7764	-7.2804
Prospector (ROI)	2.9367	15.54784	5.5733	0.2801
Markt effect_Def	25.8847	24.06597	29.9813	21.7881
Markt effect_Prosp	43.5920	110.68754	62.4337	24.7503
Profit_Def	-67.3267	321.5106	-10.8678	-123.7857
Profit_Prosp	104.8223	314.4361	158.3469	51.2977



introduction and growing phase. In those phase, companies will seek market opportunities and develop their products. Therefore, prospector companies relatively need higher marketing costs than defender companies to support high sales and to take opportunities in market (Ittner and Larcker, 1997).

Second test, marketing effectiveness of prospectors and defenders has positive effect on performance (H2). Test result shows that marketing effectiveness has positive relationship with performance (see table 4), but it should be noted that it is only fit to companies which have defender strategies. Companies with defender strategy will tend to choose cost efficiency as their generic strategy (Porter, 1980). Those companies also will incur marketing costs efficiently to gain profit (Kotler, 2005). Therefore, marketing effectiveness has positive relationship with company performance.

While marketing effectiveness of prospectors has non-significant negative relationship with performance. Since prospectors is analogue to be in introduction and growing phase. In both phases, a company needs enormous marketing cost to introduce their products and look for market opportunities (Ittner & Larcker, 1977; Porter, 1980 and 1985), so that marketing costs tend to be not effective.

Companies which are in introduction phase need huge investment, so that they probably undertake a negative cash flow or only gaining small profit (Pashley & Phillippatos, 1990). During growing phase, company's profit will start to increase and they will do a product differentiation to overcome competition. Those two phases implement prospector strategy so

that marketing cost effectiveness has no significant relationship with company performance. There are many factors that influence this strategy performance, for example customer satisfaction (Andersen, 1997).

The test is also carried out to see the performance differences between companies which have marketing effectiveness of prospector and defender strategy. The result shows that companies with prospector strategy have significantly better performance than companies with defender strategy. Performance here is measured by ROI and profit (see table 3).

The result of Hypothesis 3 test shows that strategy and performance (ROI and Profit) have positive and negative relationship (see table 5). Strategy types have negative and non-significant relationship with company performance in ROI. This result is consistent with the result of the research conducted by Habbe (2001) and Hambrick (1983). The found that prospector's performance has negative relationship with strategy type. However Woodside et al. (1999) found different thing. They found that company strategy has weak relationship with performance, both in ROI and Profit. Hambrick (1983) found that ROI of companies with defender typology is higher compared with prospector companies. This testing found significant and positive relationship between strategy type and profit, although the relationship is weak ( $R^2$  only 6,9%). This finding is consistent with Woodside et al.'s finding (1999). Olson's (2005) finding indicated that company strategy has strong relationship with company performance, but it must be fit with the certain type of business.

**Table 3.** *T-test* for marketing effectiveness difference, and performance (ROI and Profit) between prospector and defender strategy

Variable	Mean	<i>T-test (p-value)</i>
Def_effect – Pros_effect	- 17.70732	-1.806 (0.073)*
ROI <sub>Def</sub> ROI <sub>Prosp</sub>	- 7.95510	-4.219 (0.000)**
Profit <sub>Prosp</sub> Profit <sub>Def</sub>	18.84605	4.503 (0.000)**

\*) Significance at level 5%; \*\*) at level 1%

Table 4. Regression marketing effectiveness, strategy and performance (ROI and Profit) for prospector and Defender strategy

Variable	Coefficient	t-value (p-value)
DEF (ROI) & Def_effct <sup>a</sup>	0.420	13.642 (0.000)**
PROS (ROI) & Pros_effect <sup>b</sup>	- 0.002	0.136 (0.892)
DEF (Profit) & Def_effec <sup>c</sup>	5.215	4.906 (0.000)**
PROS (profit) & Pros_effect <sup>d</sup>	- 0.126	0.514 (0.608)

<sup>a</sup>R<sup>2</sup> 58.3%; significance at level 1%.

<sup>b</sup>R<sup>2</sup> 1.2%

<sup>c</sup>R<sup>2</sup> 40.2%; significance at level 1%.

<sup>d</sup>R<sup>2</sup> 4.5%

Table 5. Regression strategy type and performances

Variable	Strategy		
	Coefficient	T value (p-value)	R <sup>2</sup>
ROI	- 0.077	-0.898 (0.370)	3 %
Profit	0.011	4.381 (0.000)**	6.9 %

\*\*Significance at level 1%.

Hence, the result of this research only can support some parts of hypothesis 3. According to this result of this research, the strategy has strong relationship with performance, in the scope of certain company characteristics. Prospector and defender strategy have no relationship with performance of ROI, because there are many factors that influence ROI. Strategy is related to profit performance, because strategy type influences sales and cost types. For example, prospectors spend high cost for investment and R&D, so they have greater possibility to gain only small profit. Conversely, defender strategy is focused in tight cost control because of hard competition. This condition will influence profit directly.

The other argument, according to Hambrick (1983) prospector strategy is assumed only temporary. According to researcher, this condition possibly related with strategy in product life cycle phase. Prospector strategy is strategy which is implemented in introduction and growing phase, period in this phase relatively shorter than maturity and decline phase.

### Conclusion

This research is a preliminary study which refers to Woodside et al. (1999). The differences of this research from Woodside et al (1999) are: (1) this research uses secondary data, while primary adapt; (2) This research uses linear regression and *t* test, while Woodside et al (1999) uses *Lisrel*.

This research is aimed at: (1) testing the association between prospector and defender strategies and marketing effectiveness; (2) testing the association between marketing effectiveness and organization performance; (3) testing the relationship between typologies of strategy and organization performance.

The first result of this research shows that marketing effectiveness of prospectors is higher than that of defenders. This result is consistent with Woodside et al (1999) and Porter's theory (1985). The second result of this research is also consistent with Woodside et al. (1999) and Conant et al. (1997) which argue that marketing effectiveness has positive relationship with performance. However, the third result shows



inconsistent result to previous results. This research only shows positive relationship between strategy and performance but the relationship is found to be weak.

This results contain weaknesses, since the samples of this research are only few and use advertising and promotion costs as proxies of marketing effectiveness. Future research should use other proxies such as customer satisfaction or brand image and use larger samples. The future research is also suggested to use primary data and add other measurements of performance such as market share or cash flows as conducted by Hambrick (1983).

This research is hoped to add contribution in strategic management accounting, especially the relationship between strategy, performance, and marketing. This research also describes that marketing costs support the sustainability of companies. Moreover, life cycle of products also affects marketing strategy. In the introduction and growth phase, marketing costs tend to be higher, therefore the company can consider the life cycle of products in formulating strategy of a company.

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