

International Conference on Accounting Studies (ICAS) 2016  
 15-18 August 2016, Langkawi, Kedah, Malaysia

## Generic Strategies and Financial Performance Persistence: Study in Indonesia Banking

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### Abstract

This study investigates the relationship between the bank strategic positioning and performance. A central question in the management literature has been to identify the sources of competitive advantage that allow firms to attain and persistent superior performance over their competitors. Banks can build competitive advantages by following either a cost leadership or a differentiation strategy. Banks adopting a cost leadership strategy principally attain advantages based on operational efficiency, and hence the performance of such firms should more persist over time than other bank adopting differentiation strategy. This study documents an empirical investigation of this premise using a sample of 216 firm-years over the period 2010-2013. This study details the development of constructs using audited financial-level archival data to capture a bank's strategic positioning. These constructs are then used in empirical models that explore the persistence of bank performance. Using confirmatory factor analysis, the results of these models estimation indicate that although both cost leadership and differentiation strategies have a positive effect on contemporaneous performance, only the efficiency strategy allows a bank to achieve and maintain superior performance in the future.

**Keywords:** Generic strategy, efficiency, differentiation, persistence

### 1. INTRODUCTION

In the last two decades, management accounting practices and research have evolved to include a more strategic approach. These developments have prompted several studies of management accounting, which focuses on the interaction between managerial accounting practices and organization strategies. Some literatures examine the relationship between firm strategic choices and accounting systems design (Ittner & Larcker, 2001; Bunker, Mashruwala, & Tripathy, 2014). Barriers to undertake further investigation is likely due to lack of development of a comprehensive proxy for corporate strategy. The main focus of this study is to follow Bunker, Mashruwala, & Tripathy (2014) who develop measurement strategies adopted by the firm. Furthermore, this investigation to see potentially what bank's financial performance remains persistent.

This research is motivated by the limited studies that examine the relationship of corporate strategy and financial performance, especially in the financial services industry. In addition, some previous studies show still mixed results (Chan & Wong, 1999; Powers & Hahn, 2004). Research needs to be done to test this relationship, especially in service firms because this sector has very different characteristics to non-service firms. Most researchers examine the sources of competitive advantage enabling manufacturing firms to maintain superior economic performance. According to Porter (1980), the firm with a competitive advantage based on cost

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leadership or differentiation strategy is able to outperform a competitor. Porter (1996; 2001) argues that the technological innovation enables operational improvements and increases cost efficiency.

Barney (1991) and Porter (1996) conclude that if the competitive advantage easily imitated by competitors, these benefits will disappear over time. When competitors perform similar activity to or better activity than the firm, it will jeopardize the sustainability of the firm's performance. To maintain financial performance, it may be necessary for the firm to diversify the activities undertaken and services delivered (Banker, Mashruwala & Tripathy, 2014). However, Miller (1992) states that the pure cost leadership (strategy that does not combine cost leadership strategy with differentiation strategy) will be very effective if the customers are very sensitive to price, and when there is an opportunity to get the cost benefits. This concept is applicable to the banking industry due to the bank's customers are very sensitive to the loans and deposits rates. Thus, banks that follow more efficiency strategy can realize the performance benefits compared to competitors who pursue other generic types of strategies or choosing stuck in the middle (Powers & Hahn, 2004).

Empirical question that needs to be examined is whether the bank strategy based on efficiency is more likely to maintain its financial performance over time (more persistent) than banks that follow the differentiation strategy? Otherwise, Banker, Mashruwala, & Tripathy (2014) develop a mathematical model using accounting data to be applied to non-regulated firm to test that research question. We further combine model of Banker, Mashruwala, & Tripathy (2004) and strategy scale of Powers & Hahn (2004) to be modified to suit the banking industry as the research object. These scales are used to determine the operational strategies and to assess the persistence of the public banks' financial performance.

This study is expected to provide some contributions. First, we modify the strategy measurement used in research of Banker, Mashruwala, & Tripathy (2014) to assess the persistence of the bank performance. Second, we add the management accounting literature related to the firm strategy and performance, and fill some of the gaps with a focus on the banking industry in Indonesia. Finally, this research will further clarify the relationship between strategy and performance using more objective measurement scale (not subjective like a questionnaire). The test results indicate that more efficiency strategy enables banks to maintain financial performance (persistent) rather than differentiation strategy and additional testing shows the results unchanged (robust).

## 2. THEORETICAL FRAMEWORK AND HYPOTHESIS DEVELOPMENT

### 2.1 Porter's Generic Strategies

Porter (1980) introduces three generic strategies that can be adopted by firms to gain a competitive advantage, namely cost leadership, differentiation, and focus. According to Porter, firms that have a competitive advantage can outperform other firms. Cost leadership strategies emphasizing on minimizing the cost mainly through efficiency in their operations. The goal of cost leadership is become more competitive advantage firm through cost advantages (efficiency). Efficiency strategies usually require a high expertise level for designing the efficient products and invest huge capital. Firms that implement differentiation strategy will create some unique products to encourage consumers willing to pay a premium price. The differentiation strategy emphasizes the product development and continuous innovation; aggressive marketing and sales activities. The expenditure of these activities allows the firm to get more premium price compared to competitor products or services. Banks that adopt this strategy usually also provide interest rate above the market price (Berman et al., 1999). While the focus strategy is very different from other strategies because it emphasizes the coverage options will narrow to compete in an industry. This strategy is based on the premise that the firm will be able to serve a narrow strategy targets more effectively and efficiently than competitors that serve a wider target.

### 2.2 Generic Strategies of Banking

In the banking industry, a key determinant of the success of the differentiation or efficiency strategies if the bank understands the market structure (Young, 1999). The distribution systems, technology, segmentation, pricing, product development, branding, quality services, and bank relationships are as ways of achieving differentiation strategy (Farrance, 1993; Devlin, 1995). Study with a sample of Indonesia banking conducted by Rustamblin et al. (2013) shows that the selection of a differentiation strategy is more affect the bank's performance compared to an efficiency strategy, as well as an integrated strategy. On the contrary, Powers & Hahn (2004) approve that the banking firm will hardly get superior benefits when applying the differentiation strategy. Differentiation strategies may be limited to the service industry because of its simplicity and easy to imitate financial services, except the target market is very sophisticated and have the knowledge.

## 2.3 Performance Persistent

Performance persistence is an indicator of the future performance generated by the firm repeatedly over the long term (sustainable). Whereas, the profit performance persistence is the relationship between the current and future profit performance (Sloan, 1996; Freeman, Ohlson, & Penman, 1982). They define profit as operating profit divided by total assets. Francis et al. (2004) measure the performance persistence from the slope coefficient of the regression results in the current performance to lagged performance. Performance is defined as performance from ordinary activities (net income before extraordinary items).

## 2.4 Hypothesis Development

The firms should maintain its unique position (differentiation) or low cost to reach superior performance. The difficulty lies in the inability of companies to withstand competitors from imitating or even increase sources have the advantage. Systematic methods to obtain information generally available to all competitors and new techniques to spread rapidly (Barney, 1986). The technological advances in recent decades have allowed the rapid diffusion of information and enabled the company to quickly duplicate the new business processes or products. As a result, many firms are not able to take advantage and the success of adopting innovative tools and techniques such as time-based management and reengineering the organization to improve productivity, quality and efficiency, and sustained profitability (Porter, 2001).

In the service industry such as banking, Devlin & Ennew (1997) prove that the differentiation strategy may be difficult to implement given the services that are easily replicable. The option to achieve differentiation strategy is also limited because of its simplicity and easily duplicated financial services, except the target market has the high knowledge and sophistication. In addition, the banking industry is regulated firm could be a barrier to more innovation or differentiation because it is bound by the rules of banking which is set by the regulator (central bank or financial services authority). Thus, the main hypotheses of this study are as follows:

H1: Banks that implement efficiency strategies will be higher performance rather than banks that implement differentiation strategy.

H2: Banks that implement efficiency strategies are more likely to maintain their financial performance over time rather than banks that implement differentiation strategy.

Figure 1 describes the framework of relationship between generic strategy and bank performance.

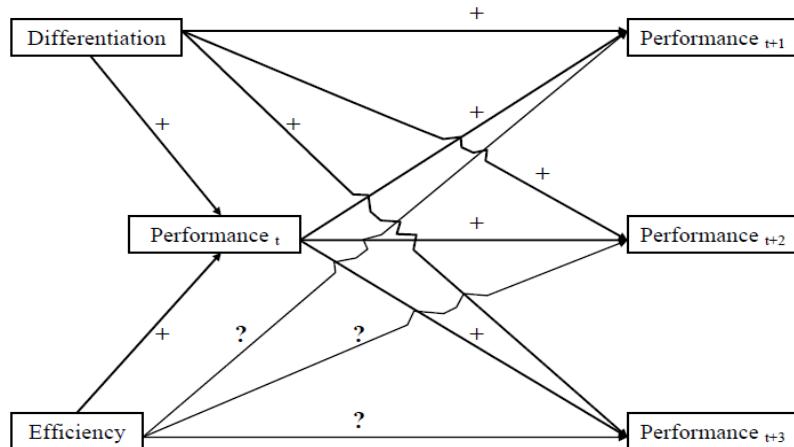


Fig. 1. Research Framework: Relationship between Generic Strategy and Bank Performance

## 3. RESEARCH METHODS

### 3.1 Sample Selection and Data Sources

Financial data available on the website of Bank Indonesia ([www.bi.go.id/id/publikasi](http://www.bi.go.id/id/publikasi)) consisting of income statements and balance sheets for 2009-2013. Samples were taken by purposive sampling method in order to obtain a final sample as many as 55 banks, with a total of 216 observations. We use a single industry to minimize cross-industry variations that can affect performance persistence. Observations before 2009 are removed from the sample to avoid the possible impact of the global crisis 2007-2008. We also removed profit before extraordinary items which negatively value.

### 3.2 Model Specifications

This study develops a model of Banker, Mashruwala, & Tripathy, (2014); and determines elements of generic strategy according to Powers and Hahn (2004). We use return on assets (ROA) as a measure of bank performance.

$$ROA_{it} = \alpha_0 + \alpha_1 Differentiation_{it} + \alpha_2 Efficiency_{it} + \varepsilon_{it} \quad (1)$$

Equation 1 describes the effect of the strategy on the bank performance, in which  $ROA_{it}$  is a return on assets of firm  $i$  in year  $t$ . ROA is profit before extraordinary items divided by average total assets. This study assumes that the ROA stated as performance persistent, if regression generate positive financial performance and significant over time.  $Differentiation_{it}$  and  $Efficiency_{it}$  refers to the strategy followed by the bank  $i$  in period  $t$ . To test the impact of the strategy on the banks future performance, we estimate the following equation:

$$ROA_{ij} = \beta_0 + \beta_1 ROA_{it} + \beta_2 Differentiation_{it} + \beta_3 Efficiency_{it} + \varepsilon_{it} \quad (2)$$

Equation 2 to test the bank ability to maintain ROA impending based strategy followed in period  $t$ .  $ROA_{t+j}$  refers to a return on assets of the firm  $i$  in period  $t+1$ ,  $t+2$  and  $t+3$ . In evaluating the impact of the strategy variables on the future performance, we control the bank's performance in period  $t$  by entering  $ROA_t$  as control variable.  $ROA_t$  coefficient explain the performance persistence from period  $t$  to period  $t+j$ . We expect the coefficient of the efficiency strategy in period  $t+1$ ,  $t+2$  and  $t+3$  are positive and greater than the differentiation strategy. For banks that use a differentiation strategy, the positive effects will disappear over time.

### 3.4 Techniques of Data Analysis

We adjusted to such cluster analysis in the study of Powers & Hahn (2004) to modify the strategies measurement.

Table 2. Variables used to Construct Strategy

Variable	Strategy	Sign
Average Property Plant & Equipment (PPE) / net income	Efficiency	EFF1
Average loans / net income	Efficiency	EFF2
Average salaries expenses / net income	Efficiency	EFF3
Average promotional expenses / net income	Differentiation	DIFF1
Average interest income / interest expense	Differentiation	DIFF2
Average fee-based income / net income	Differentiation	DIFF3

EFF1 – firms utilize the investment to generate income (David et al., 2002), and investments in PPE to attain the firm's strategic choice (Gale, 1980; Porter, 1980). Banking could have or reproduce assets such as computer devices to reduce operating costs or improve efficiencies associated with delivery of banking services. EFF2 -- one of the efficiency strategies undertaken by maintaining the capacity and flexibility of loans (Powers & Hahn, 2004). This approach is taken to manage the risks and take advantage of opportunities such as controlling weight and improving profit margin. EFF3 -- a way to pursue an efficiency strategy by employing experienced and trained employees (Hambrick, 1984; Kotha & Vadlamani, 1995; Powers & Hahn, 2004).

DIFF1 -- higher allocation of resources to the promotion and marketing show the effort to build and strengthen the bank image and products. Innovation in marketing techniques and methods is one of the differentiation strategies of banking (David et al., 2002; Powers & Hahn, 2004; and Banker, Mashruwala, & Tripathy, 2014). DIFF2 -- differentiation strategy can be done by offering services at a higher price segment (Porter, 1980; Berman et al., 1999; Powers & Hahn, 2004; Banker, Mashruwala, & Tripathy, 2014). Although the bank is regulated firm, in practice they continue to use the firm's strategy to be more superior than competitors. DIFF3 - - this ratio is a proxy of the extensive customer service capability (Powers & Hahn, 2004). Fee based income (FBI) is an innovative way to help raise revenue in addition to non-bank revenue.

We calculated the average of the previous five years of bank data from each variable to obtain long-term strategic orientation. Validity and reliability tests conducted to test whether a variable weight on the dimension of a strategy which is expected as suggested by theoretical argument by Confirmatory Factor Analysis (CFA). We estimated equation 1 and equation 2 using the estimation method of year-over-year Fama-Macbeth to test the persistence of the banks economic performance that follow the efficiency and differentiation strategy.

## 4. RESULTS

### 4.1 Testing Results of Factor analysis and Descriptive Analysis

Table 4 explains the results of confirmatory factor analysis (CFA) that indicates 2 factors (EFF and DIFF) formed by 5 variables (EFF1, EFF2, EFF3, DIFF1, DIFF2). Factor loading is to explain the magnitude of the correlation of a variable with EFFICIENCY and DIFFERENTIATION factor. The correlation between EFFICIENCY and EFF1 is strong enough (0.673), and EFF2 (0.846), EFF3 (0.749) are strong. While the correlation between DIFFERENTIATION and DIFF1 is 0.664 (strong enough) and DIFF3 is 0.798 (strong). Communality (column 4) is the amount of variance (in percentage) indicating the greater value of a variable communality means more closely related to factors formed. The variable of EFF2 has the highest value (0.717) which means that approximately 71.7% of the EFFICIENT can be explained by EFF2 variable.

Table 4. Confirmatory Factor Analysis of Strategic Measures

Variables	Efficiency Factor Loading	Differentiation Factor Loading	Total Communality
EFF1	0.673		0.469
EFF2	0.846		0.717
EFF3	0.749		0.562
DIFF2		-0.664	0.582
DIFF3		0.798	0.681
<b>Initial Eigenvalues</b>	38.308	21.914	
<b>Variance Explained</b>	1.915	1.096	
<b>Cronbach Alpha</b>	0.10	0.01	

EFF1 -- average PPE / net income, EFF2 – average loans / net income, EFF3 – average salaries expenses / net income, DIFF2 – average interest income / interest expenses, DIFF3 – average fee based income / net income.

Interpretation of EFFICIENCY factor indicates associated positively with EFF1, EFF2, and EFF3 which means a group of banks that choose the efficiency strategy characterized by the magnitude of the ratio of the average PPE / net income, the ratio of average loans / net income, and the ratio of average salaries / net income. It can be concluded that all three variables can explain the bank efforts to push the cost savings and in accordance with the efficiency strategy. Efforts are made to (1) have assets (device or facility technology) is great to save operating costs, (2) provide loans in large number so as to enable the provision of lending rates are low, and (3) give the amount of salary or remuneration to get a professional and skilled human resources boosting efficiency. Interpretation of DIFFERENTIATION factor as indicated of DIFF1 negatively correlated, while DIFF2 positively correlated with the differentiation strategy. It means that the differentiation strategy is characterized by low ratio of average interest income/interest expense and the high ratio of the average FBI/net income. While, Variable DIFF1 is not strong enough (0.664) that shows the low margin in explaining the bank's strategy of differentiation, the variable DIFF2 is consistent with the predictions of Power & Hahn (2004). The fee-based income (FBI) is high reflecting the unique form of service that is given as an alternative way for banking to earn other income. Suppose technology-based banking services (innovative form) through e-banking or ATM for payment of transportation (plane or train) or other utility bill payments both to customers / non-customers.

Table 5 reports the results of the correlation between variables. There is a positive relationship between the efficiency and differentiation with ROAt (0.657 and 0.099), ROAt+1 (0.497 and 0.103), ROAt+2 (0.462 and 0.104), and ROAt+3 (0.439 and 0.092). In summary, the correlation results show a higher correlation to the efficiency variable than differentiation variable.

Table 5. Correlation Analysis

	Efficiency	Differentiation	ROA (t)	ROA (t+1)	ROA (t+2)	ROA (t+3)
<b>Efficiency</b>	1.000					
<b>Differentiation</b>	0.174	1.000				
<b>ROAt</b>	0.657***	0.099	1.000			
<b>ROAt+1</b>	0.497***	0.103	0.770***	1.000		
<b>ROAt+2</b>	0.462***	0.104	0.641***	0.809***	1.000	
<b>ROAt+3</b>	0.439***	0.092	0.650***	0.798***	0.829***	1.000

\*\*\*significant at 1%, \*\* significant at 5%, \*significant at 10%

#### 4.3 Analysis of Performance Persistence (ROA)

The estimation results of equation 1 are shown in Table 6 Panel A to examine the relationship between the banks strategy and the banks performance (H1). The results support previous literature that both strategies have a positive impact on financial performance (ROA), with impact of the efficiency strategy (0.002, Fama-MacBeth t-statistic = 2.25) is higher than the differentiation strategy (0.001, Fama-MacBeth t-statistic = 1.10).

Panel B shows the test results of the two strategies (differentiation and/or efficiency) that causes the positive performance persistence (H2). The estimation results of equation (2) as expected that the estimated coefficient for ROA<sub>it</sub> is a positive and significant for each year t+1, t+2 and t+3 (0.945; 0.715, and 0.741, with the Fama-MacBeth t-statistic is =10.92; 6.25; and 5.66). The coefficient for the interaction ROA<sub>it</sub>\*Efficiency<sub>it</sub> is positive and significant only at t+2 (0,096); Fama-Macbeth t-statistic = 4.28. As for the other interactions that

$ROA_{it}^*$  $Differentiation_{it}$  is nothing significant at 1%, 5%, and 10% in each year. For a comparison between the two coefficients indicate coefficient of  $ROA_{it}^*$  $Efficiency$  is significantly higher than  $ROA_{it}^*$  $Differentiation$ .

Table 6.

Panel A: Relationship between Strategy and Financial Performance (ROA)

Variable	Prediction Sign	Coefficient (Fama-MacBeth t-stat)
Intercept		0.014***
Efficiency	+	0.002**
Differentiation	+	0.001
Adjusted R <sup>2</sup>		0.074
F-statistic		3.145**

Panel B: Financial Performance Persistency (ROA)

Independent Variable	Prediction Sign	Coefficient (Fama-MacBeth t-stat) $ROA_{it+1}$	Coefficient (Fama-MacBeth t-stat) $ROA_{it+2}$	Coefficient (Fama-MacBeth t-stat) $ROA_{it+3}$
Intercept		0.001	0.004**	0.003
$ROA_{it}$	+	0.945***	0.715***	0.741***
$ROA_{it}^*$ Efficiency <sub>it</sub>	+	0.060	0.096***	0.075
$ROA_{it}^*$ Differentiation <sub>it</sub>	+	0.037	0.054	0.066
Adjusted R <sup>2</sup>		0.686	0.582	0.592
F-statistic		28.93***	25.57***	26.14***

\*\*\*significant at 1%, \*\* significant at 5%, \*significant at 10%

Overall, according to the hypothesis that efficiency strategies are more affect financial performance and more likely to be able to maintain current and future financial performance. In other words, through an efficiency strategy, the bank could be more superior to its competitors' differentiation strategy.

#### 4.5 Robustness Test

In the previous equation, we have not incorporated the characteristics of bank that is likely to affect the result of the research. Otherwise, we tested the robustness by inserting firm size and growth opportunities variables. Bank size measured by the natural logarithm of total assets; while the growth opportunities measured by the growth of bank interest income. The test results (not tabulated) indicate no change (robust). Thus, the strategy variables provide incremental (additional) information contained in the bank size and growth opportunities.

### 5 CONCLUSION, LIMITATION, FUTURE RESEARCH

This study aimed to examine the relationship between the banks generic strategies and the persistence of their performance. The research focuses on the development of construction to capture the strategic position of the bank, and then use it to test the persistence of bank profits in Indonesia. The study results show that banks that implement efficiency strategies enable to achieve superior performance, and a more positive impact on the future performance. Furthermore, additional tests show the results do not differ qualitatively. Operationalization of generic strategies based on the financial data which has some limitations associated susceptible to bias. First, this measurement is only based on our ability to proxy each variable measurement that has not been tested by previous researchers. Second, the study results also need to be interpreted with caution because of the regression results show the impact of the efficiency strategy only at  $t + 2$ , while for  $t + 1$  and  $t + 3$  are not significant. Third, the reliability level is still very low (Cronbach alpha <0.5). Finally, this study does not capture the possibility of business unit strategy. However, this research is very challenging and interesting to be further studied. Future studies may attempt to the development of more comprehensive constructions to capture the strategic orientation of the company through a detailed field study (analyzes a case by case basis).

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