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AN ANALYSIS OF STRUCTURE, BEHAVIOR AND BANKING PERFORMANCE OF ISLAMIC BANKING IN INDONESIA

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Abstract

This study aims to examine the impact of market structure and market behavior on the Islamic banking performance in Indonesia. Using the SCP model framework, this study examines five largest Islamic banking in Indonesia. The result reveals that market behavior, Islamic banking performance, third party funds, the business scale and the target market of Islamic banking have a significant impact on the market structure of Islamic banking industry; the market structure, performance of Islamic banks, types of financing product, profit sharing rate and distribution scale have a significant impact on the behavior of Islamic banking industry; and the market structure, market behavior, human resources development, the quality of Islamic banks' financing and the credibility of Islamic banking financing have a significant impact on Islamic banking performance in Indonesia.

Keywords: Market Structure, Market Behavior, Market Performance, SCP Framework, Islamic Banking Industry, Indonesia

Jel Classification: G30

1. Introduction

Based on the World Islamic Banking Competitiveness Report 2013-2014 (EY, 2013), as can be seen from Table 1, the development of Islamic banking compositions in Indonesia from 2008 to 2012 experienced the highest percentage average growth per year compared to other countries which count for 42 percent. However, the Islamic banking industry has the lowest target market and total assets compared to other countries which count for only USD 20 million of the total assets and 4.6 per cent of the target market. The lowest rate of the target market and the lowest

value of total assets of Islamic banking industry compared to the conventional banking industry are worth raised for further investigation.

Table 1. Islamic Banking Performance (Period 2008 - 2012)

Country	Growth (five-year CAGR) (%)	Faster than conventional (X(times))	Total Asset (US$ billion)	Market Share (%)
Qatar	31	1.8	54	24
Indonesia	42	3.1	20	4.6
Saudi Arabia	11	3.6	245	53
Malaysia	20	2.1	125	20
United Arab Emirates	14	3	83	17
Turkey	29	1.6	39	5.6

Source*:* EY (2013)

The relationship among structure, behavior and banking performance differs from each industries in which those may affect the structure, behavior and performance differences for banking industry and manufacturing industry (Amalia and Nasution, 2007). An empirical study conducted by Ajlouni (2010) examined the banking industry in Turkey from the period of 1960 to 1980 providing evidence on how the market structure affects the bank's performance.

It is also experienced by the Islamic banking in the Gulf states "The Gulf Cooperation Council" (GCC), comprising Bahrain, Kuwait, Oman, Qatar, Saudi Arabia and the United Arab Emirates (UAE). Their banking industry is fully protected and organized.

The characteristics of the Islamic banking system that operates on the principle of profit sharing provide an alternative for banking system that is mutually beneficial for the community and banks, as well as accentuate aspects of fairness in transaction and ethical investment, promote the values of solidarity and partnership in production, and avoid speculative activity in financial transaction. By offering a range of products as well as a variety of banking services with various financial schemes, Islamic banking can be an alternative banking system which is credible and can be experienced by all segments of Indonesian society with no exception.

The total assets contribution of Islamic banking is only 3.69 percent compared to the total banking assets in Indonesia, and this contribution gives a minor contribution in stimulating Indonesian economics' growth, and this lower contribution is extremely in contrast compared to the contribution of Islamic banking in Malaysia which contributes 21 percent or IDR 1.1 billion to the total assets of their banking industry as yet the number of Muslim community is lower than Indonesia. The contribution of Islamic banking is IDR 144,147 trillion which is lower than the total asset of banking industry which accounts for IDR 3,902.530 trillion in 2012, and it can be concluded that the contribution of Islamic banking industry is only 3.69 percent out of total banking industry assets.

Out of 27 Islamic banks operating in Indonesia and apparently, all those Islamic banking assets are owned by only five major Islamic banks which count for 76.12 percent. Those five banks are Bank Syariah Mandiri, (33.92 percent), Bank Muamalat (22.82 percent), Bank BRI Syariah (7.85 per cent), Bank BNI Syariah (6.20 percent), and Permata Syariah (5.30 percent). The total assets that are concentrated in those five Islamic banks are likely to affect the market structure, behavior, and performance of Islamic banking industry in Indonesia, as can be seen from Table 2.

Weill (2011) examined 17 countries having Islamic banks and conventional banks. Those 17 countries included are Bahrain, Bangladesh, Brunei, Indonesia, Iran, Jordan, Kuwait, Malaysia, Mauritania, Qatar, Saudi Arabia, Sudan, Tunisia, Turkey, United Arab Emirates and Yemen. The result revealed that there was no significant difference in market power between Islamic banks and conventional banks. Islamic banks do not have greater market power compared to conventional banks.

Table 2. Share of Islamic Banking in Indonesia period 2012

Indonesian Islamic Banking	Total Asset Trillion Rupiah	Market Share of All Islamic Banking (%)	Market Share to Conventional Banking (%)
Bank Syariah Mandiri	48,898.661	33.92	1.25
Bank Muamalat	32,907.063	22.83	0.84
BRI Syariah	11,320.350	7.85	0.29
BNI Syariah	8,942.035	6.20	0.23
PERMATA Syariah	7,652.654	5.31	0.20
22 other Islamic banks	3,426.655	23.88	0.88
TOTAL	**144,147.418**	**100**	**3.69**

Source: Bank Indonesia (2012)

In the organizational analysis model established by Neuberger (1997) that were used to examine the banks in America and Europe, the relationship between the common conditions, market structure, market behavior and performance is a reciprocal relationship in both directions. In addition, Neuberger (1997) categorized the public policy in groups other than common condition, market structure, market behavior and performance.

The study of Islamic banking industry in Indonesia using S-C-P simultaneously pattern is scarce. The study using SCP is commonly employed in the manufacturing and plantation industries. The regional characteristics and industry types are the causes of the difference in categorizing SCP variables and the SCP categorizing was examined by Bain (1951), Scherer and Ross (1990), Martin (1979), Neuberger (1997), Shepherd (1990) and Carlton and Perloff (2005). To investigate the banking industry, variables which are relevant to Islamic banking are worth considered. Hence, the same rules apply to Islamic banking industry in Indonesia. Additionally, the difference of growth rate between Islamic and conventional banks in Indonesia is of interest to be examined.

This study is aimed at investigating the impact of market behavior, Islamic banking performance, third party funds, the business scale and the target market of Islamic banking on the market structure of Islamic banking industry; the impact of market structure, performance of Islamic banks, types of financing product, profit sharing rate and distribution scale on the behavior of Islamic banking industry; the impact of market structure, market behavior, human resources development, the quality of Islamic banks' financing and the credibility of Islamic banking financing on Islamic banking performance in Indonesia.

2. Literature Review

2.1 Industrial Organization

According to Carlton and Perloff (2005), an industry is a group of firms which produce and sell the same products and services. In the beginning of industrial economics, the relationship among the market structure, market behavior and performance is a one-way correlation and due to the economic development, the relationship among those three become more complex. The market structure determines the company's behavior in the market, and the company's behavior determines every aspects of the company's performance.

The dominant approach for industrial economy by Sawyer (1991) is usually depicted by the approach of the structure, the behavior and the performance. The structure, market and performance approach is a success key in understanding and predicting the industry's performance in order to achieve profitability, growth, promotion, technical progress and so forth.

There is a substantial difference between micro economics and industrial organization in which the industrial organization focuses on dynamic performance meanwhile micro economics focuses on static model. This view is stated by Waldman and Jensen (2001, p.09) as follows; "Most microeconomics courses emphasize static models that deal with a moment in time. Dynamic models deal with changes over time. Dynamic models are strategic and tend to emphasize technological change more than static models do".

According to Clarke (1990), the basic approach of industrial economics is focusing on the relationship between the market structure and behavior in determining the market performance. The simplest relationship indicates the causal relationship between market structure and market behavior which is in turn affecting the market performance. This one-way correlation is stated by Mason (1939) and hence after is continued by Bain (1959).

Variables are often used on the most common variables used in the SCP framework for banking industry according to Neuberger (1997) contained in the structure of the banking market, covering market segmentation,market structure, market behavior, performance and public policy Market structure consists of market segmentation, product differentiation, market extension, diversification, cost structure, entry and exit barriers. Market behavior consists of price competition, network and quality competition, advertising, price inequality, collusion, predation, merger, information gathering, cost preference, risk and full employment. The performance consists of production and allocation efficiency. Public policy includes protective regulation, prudential regulation and competitive regulation. All variables in SCP framework are endogenous as all those variables are affected by each other.

The simultaneous SCP framework used in a study conducted by Delorme *et al.* (2003, pp. 13-20.) in the American manufacturing industry provided this result; “A simultaneous equations framework is used to study the relationship between structure, conduct, and performance in US manufacturing in 1982, 1987 and 1992. The model includes three equations, one each for structure (S), conduct (C) and performance (P), as a function of the other two variables: S =f(C,P), C=f(S, P), and P= f (S,C)”.

2.2 Structure - Behavior - Performance in the Banking Industry

Further research on SCP is conducted by Caves (1967) which concluded that higher market concentration in the banking industry will hinder the entry of new competitors in the market industry. In addition, the increase of market concentration will affect the behavior of banks whereas they will make an agreement among them which relates to pricing policy, and hence all the banks involved in the deal will be able to improve its performance.

The Structure Conduct Performance (SCP) believes that the market structure will affect the performance of an industry. This flow is based on the assumption that the market structure will affect the behavior of companies that will ultimately affect the performance of the company and the industry in aggregate as expressed by Gilbert (1984). From the competition point of view, concentrated market structure tends to create various behavior of the business competition in which it can lead to unhealthy competition in order to obtain profit. The company can maximize the profit using market power in which it is prevalent in a company having greater market power.

These market conditions are of importance for market structure, behavior and performance. Therefore, SCP framework should be enhanced with incomplete information to be used for banking analysis. Neuberger (1997) affirmed that there is no optimal measures that can be used for the banking industry as the banks have different business scale which may differently affect their tasks.

3. Framework

As can be seen from Figure 1, the framework of this study is based on the lower contribution of Islamic banking compared to the contribution of conventional banking in Indonesia. Using SCP framework, the causes of the lower growth of Islamic banking in Indonesia can be examined. The framework analysis is used to design SCP framework which focuses on factors affecting the market structure, market behavior and market performance of Islamic banking industry in Indonesia.

This framework explains the phenomena arising due to the lower growth of Islamic banking in Indonesia using SCP framework from Bain (1956), Scherer (1973), Domowitz *et al.* (1986), Shepherd (1990), Neuberger (1997), Martin (1979), Bikker and Haaf (2002). Kuncoro (2007) and Delorme *et al.* (2003) and industrial organization approach from Carlton and Perloff (2005), and Waldman and Jensen (2001) that explained the relationship between market structure, market behavior and market performance, as well as government policies.

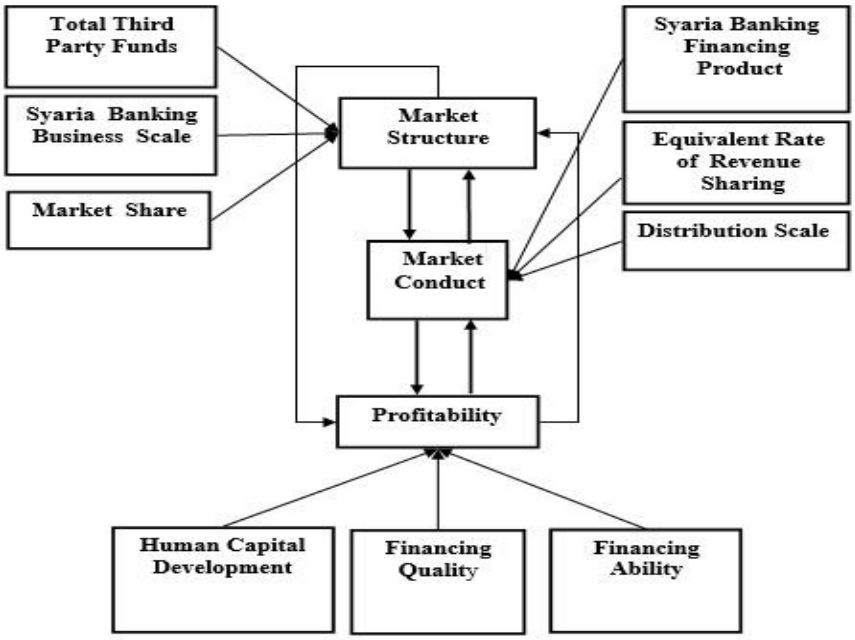

Figure 1. Analytics' framework of market structure, market behavior and performance of Islamic banking in Indonesia

Not all indicators in the industrial organization SCP models previously are employed in this framework. Market concentration is used as an indicator for the market structure as also used by Hannan and Berger (1991), Neuberger (1997), Ariyanto (2004). Promotion is used as an indicator for the market behavior as also used by Strickland and Weiss (1976). Profitability is used as an indicator for market performance as also used by Hutapea and Kasri (2010), Suhel (2012), Fahmi (2012).

This framework analysis used nine independent variables affecting the market structure, the market behavior and the performance of Islamic banking industry in Indonesia in which this framework is based on the study Yudistira (2004), Majid and Sufian (2007), Suhel (2012), Fahmi (2012), Chen (2012).

There are three independent variables affecting market structure which are Islamic banking third party fund, Islamic banking scale of business, Islamic banking market share. Three independent variables affecting promotion strategy are financing product types of Islamic banking, profit sharing and distribution scale. Three indicators affecting profitability are human resource development, financing quality and financing credibility. All those nine independent variables are frequently used in previous SCP studies that referred to Hannan and Berger (1991), Majid and Sufian (2007), Suhel (2012), Fahmi (2012), Chen (2012)

4. Research Method

4.1 Data

This study covers Islamic banking industry in Indonesia and using secondary data obtained from the financial statement from 2007 to 2013 published by Indonesian Central Bank, this study employs monthly data for analysis. Variables employed in this study are total financing, total promotion cost, third-party fund, return on assets, profit sharing rate, the number of operational branches owned, total cost of training and education for employee, non-performing loan, finance to deposit ratio. The details of variables employed are shown in Table 3 below.

Table 3. Variables

Variables	Indicators
Market Concentration (CRN)	The total Islamic financing value within the industry to total financing to all Islamic banking industry
Target Market (MS)	Total Islamic financing owned by a bank to total Islamic financing by Islamic banking industry
Promotion Strategy (A/S)	Total promotion cost to total third-party fund
Profitability (ROAS)	Ratio between net income to total assets
Third-party Fund (FUN)	Total savings of third-party fund
Business Scale (TA)	Total assets of Islamic bank
Profit Sharing Rate (MRJ)	Profit margin of Islamic bank to profit and revenue sharing
Total Islamic Financing (FIN)	Total all Islamic financing types (mudharabah, murabahah, salam, istisna and so forth).
Distribution Scale (CB)	All operational branches owned by Islamic bank
Human Resource Development (SDM)	Total cost of employees' training and education in the Islamic bank
Islamic Financing Quality (NPF)	Ratio between bad-debt to total financing disbursed to consumers
Islamic Financing Credibility (FDR)	Ratio between total financing to third-party fund

The population in this study is all Islamic banks in Indonesia during the period of 2007 to 2013. Purposive sampling is the sampling technique used in this study in which the consideration used is all the Islamic banks should have a complete financial statement in the period of 2007 to 20013. Hence, there are only five Islamic banks that have a complete financial statement, those banks are Bank Muamalat Indonesia, Bank Syariah Mandiri, Bank BNI Syariah, Bank BRI Syariah and Bank Mega Syariah.

4.2 Model Analysis

The equation model for market structure is as follows:

$$CRn = a_0 + a_1 A/S + a_2 ROAS + a_3 FUN + a_4 MS + a_5 TA + U_t \quad (1)$$

Where:
ROAS : Profitability
CRn : Concentration ratio
A/S : Promotion strategy
FUN : Third party fund
MS : Target market
TA : Business scale

The equation model for market behavior is as follows:

$$A/S = b_0 + b_1 CRn + b_2 ROAS + b_3 MRJ + b_4 FIN + b_5 CB + U_{2t} \quad (2)$$

Where:
ROAS : Profitability
CRn : Concentration ratio
A/S : Promotion strategy
MRJ : Profit sharing rate
CB : Distribution scale
FIN : Financing quality

The equation model for performance is as follows:

$$ROAS = c_0 + c_1CRn + c_2A/S + c_3SDM + c_4FDR + c_5NPF + U3t \quad (3)$$

Where:
ROAS : Profitability
CRn : Concentration ratio
A/S : Promotion strategy
SDM : Human resource development
FDR : Financing credibility
NPF : Financing quality

4.3 Model Identification

Identification of the model is determined on the basis of order condition as a condition of necessity based on the formulation of structural equation model. The model identification is as follows:

$$(K - k) \geq (g - 1) \quad (4)$$

Where:
K : Predetermined variable in the model
K : Predetermined variable in the equation
G : Endogenous variable in the model
G : Endogenous variable in the equation
U : Stochastic variable

If an equation shows the condition of (K-k)> (g-1), then the equation is identified as over-identified, if the equation shows the condition of (K-k) = (g-1), the similarity is identified as exactly identified and, when the equation shows the condition of (K-k)<(g-1), the equation is identified as unidentified. The results of the identification of any structural equation must be exactly identified or over-identified in order to be unbiased parameters.

The model analysis of the market structure, behavior and performance of Islamic banking industry in Indonesia has a model equation of G which referred as the number of endogenous variables in the model (G) = 6 and K is referred as the number of predetermined variables in the model (K) = 13, where each equation is identified as follows;

The identified function status of market structure
G – g = (3-2) + (K-k) = (9 - 3) ≥ g-1 = 1
K-k ≥ g -1 → 6 ≥ 1 → Overidentified

The identified function status of market behavior
G –g = (3-2) + (K-k) = (9- 3) ≥ g-1 = 1
K-k ≥ g -1 → 6 ≥ 1 → Overidentified

The identified function status of performance
G –g = (3-2) + (K-k) = (9-3) ≥ g-1 = 1
K-k ≥ g -1 → 6 ≥ 1 → Overidentified

Based on the identification of the respective structural equation, the result shows that all the equations are identified as over-identified; the equation models will be estimated by the method of two stages least square (2SLS) that was developed by Basman (1957)

5. Finding and Discussion

This section provides the regression results. The estimation results for the market structure, market behavior and performance equation model are shown in Table 4 , Table 5 and Table 6 subsequently.

Table 4. Estimation result for market structure in the Islamic banking industry

Variables	Coefficients
A/S	62.3083***
	(4.4798)
ROAS	-2.5972**
	(-2.0012)
FUN	-1.54E-09***
	(-18.7806)
MS	-0.5615***
	(-8.0169)
TA	4.37E-09**
	(2.0998)
Intercept	0.8591***
	(16.2277)
N	84
R-squared	0.9128
F-statistic	137.4995

Note: t-statistics are given in the parantheses. ***, **, * represent significance level at 1%, 5%, 10% respectively.

As can be seen from Table 4, F-statistic (137.4995)> F table (1.928), meaning together these five variables significantly influence the market structure. F-statistic probability value is 0.0000 indicating that simultaneously all independent variables have a significant impact on the market structure of Islamic banking industry, t- test results are used to determine whether the independent variables partially real effect or not on the dependent variable. The degree of significance used was 0.05. If the value is significantly smaller than the degree of confidence then accept the alternative hypothesis, which states that the independent variables partially affect the dependent variable, t-statistic (4.4798, -2.0012, -18.7806, -8.0169, 2.0998) > t-table (1.666).

From the t –statistic probability value, it can be seen that all variables A/S, ROAS, FUN, MS and TA have a significant impact on the market structure of Islamic banking industry in Indonesia.

5.1 Market Behavior Influence on Market Structure

The results of model estimation equation for market structure shows an influence of market behavior on market structure in which the influence is in the same direction of the market structure with a coefficient of 62.30. This model estimation results support the theory that the market structure using SCP framework for Islamic banking industry in Indonesia is unidirectional effect on the behavior of the Islamic banking industry in Indonesia. The higher level of market behavior will encourage an increase in the market structure in the Islamic banking industry in Indonesia.

5.2 The Effect of Market Performance on the Market Structure

The results of model estimation equation for market structure shows an influence of market behavior on the market structure in which the influence is a negative indicating an inverse relationship with a coefficient of 2.59. The effect of profitability in the opposite direction with a negative sign indicates that the increasing profitability does not cause an increase in the market concentration of Islamic banking market in Indonesia, but rather it lowers the market concentration of Islamic banking. A large number of Islamic banks establishment during the study period was a result of the spin-off program in the Islamic Banks industry which leads to the declining in the market concentration values of Islamic banking industry.

5.3 The Effect of Third Party Funds on Market Structure

The third party funds variable has a negative and significant influence on the market concentration. The average growth per year for the third party funds of Islamic banking will better enforce the level of competition in the Islamic banking industry, especially in obtaining low-cost funds that are derived from *Mudharabah* savings and giro deposits. The greater the third-party funds in the Islamic banking industry, the lower the level of market concentration, so that the structure of the Islamic banking market tends to be perfectly competitive.

5.4 The Influence of Market Share on Market Structure

The market share variable has a negative and significant effect on market concentration. If there is any increase in the percentage of the Islamic banking market share, then it will reduce the level of concentration of Islamic banking. The decrease was caused by the increasing market share of Islamic Commercial Banks, Market share by Islamic banks which are dominant, is not experienced by Islamic business units and Islamic bank financing market share

5.5 The Effect of Business Scale on the Market Structure

The business scale of Islamic banks variable has a positive and significant impact on the market structure indicating that the Islamic banking industry Indonesia is experiencing rapid growing, however, it is still relatively small compared to the conventional banking industry and the financial generally.

As can be seen from Table 5, F-statistic (138.8186)> F table (1.928), meaning together these five variables significantly influence the market behavior. F-statistic probability value is 0.0000 indicating that simultaneously all independent variables have a significant impact on the market behavior of Islamic banking industry, t- test results are used to determine whether the independent variables partially real effect or not on the dependent variable. The degree of significance used was 0.05. If the value is significantly smaller than the degree of confidence then accept the alternative hypothesis, which states that the independent variables partially affect the dependent variable, t-statistic (4.4506, 6.2268, 2.4891, -3.8819, 4.0545) > t-table(1.666). From the F-statistic probability value for the market behavior estimation is 0.000 indicating that all independent variables CRN, ROAS, MRJ, FIN, and CB have a significant impact simultaneously on the behavior of Islamic banking industry.

Table 5. Estimation result for market behavior in the banking industry

Variables	Coefficients
CRN	0.0519***
	(4.4506)
ROAS	0.0267***
	(6.2268)
MRJ	0.0769**
	(2.4891)
FIN	-5.09E-10***
	(-3.8819)
CB	1.05E-05***
	(4.0545)
Intercept	0.0287***
	(3.8384)
N	84
R-squared	0.91
F-statistic	138.8186

Note: t-statistics are given in the parantheses. ***, **, * represent significance level at 1%, 5%, 10%.

5.6 The Effect of Market Structure on Market Behavior

Market concentration is a proxy of the Islamic banking structure in Indonesia in which it has a positive and significant influence on the market behavior with a coefficient of 0.0519. The increasing of market concentration demonstrates an expertise in controlling the market dominated by Islamic banking industry, and this is due to the spin-off program. This is apparent that there was an increase in the cost of sale in 2010 and 2011, and then there was a decrease after 2012 and 2013. The Islamic business unit as a new comer in the Islamic market struggle to introduce their products for market acceptance. The competition among Islamic banks will encourage an increasing promotion and marketing activities and, in the end, it will escalate the Islamic banking industry market share.

5.7 The Effect of Market Performance on Market Behavior

Profitability is a proxy of the Islamic banking performance in Indonesia, and it has a positive and significant influence on the market behavior. The Islamic banking profitability encourages the banking industry to increase its activity in the market, especially promotional activities. An increase in the promotion activity was triggered by the level of Islamic bank profitability. This, in turn, will encourage an increasing profitability of the Islamic banking market share both financing and funding. A way to increase the Islamic banking market share is to increase marketing communications for new products.

5.8 The Influence of Profit Sharing on Market Behavior

The profit sharing variable has a positive and significant impact on the market behavior. The profit sharing rate is not affected by the Indonesian Central Bank interest rate in which it is a common interest rate benchmark used in the Indonesian banking industry. The profit sharing rate is mainly based on the agreement of the sharing ratio between the shahibul malls and mudharib, and the profit sharing will only be obtained in the case of the business gaining a profit. The higher rate of Islamic banking' cost is due to the higher promotion cost and higher third party funds cost incurred.

5.9 The Effect of Financing Product Quality on Market Behavior

The financing product quality variable has a negative and significant impact on the market behavior. The negative impact is due to the Islamic banking industry experiencing a decline in the annual growth sales. In 2007, the ratio of advertising to sales ratio of Islamic banking was 0.26 percent annually, and by the end of 2013, this ratio increased to 1.27%. Further, the growth of Islamic financing product experienced the highest growth in 2011 which counted for 33.06 percent but this growth declined in 2013 by 28 percent. Islamic banks attempted to increase higher promotion activities due to new Islamic financing product.

5.10 The Effect of Distribution Scale on Market Behavior

The distribution scale variable has a positive and significant impact on the market behavior. The product of funding is wadiah deposit, saving deposit, and mudarabah deposit. The product of financing is musarakah financing and murabahah financing. Apparently, the size of distribution scale plays an important role in the Islamic banking product distribution as larger distribution scale will improve the market behavior toward Islamic banking industry.

As can be seen from Table 6, the estimation result for performance reveals that all variables (promotion strategy, human resource development, financing credibility and financing quality) have a significant impact on market performance simultaneously. F-statistic probability value is 0.0000 indicating that simultaneously all independent variables have a significant impact on the market performance, t- test results are used to determine whether the independent variables partially real effect or not on the dependent variable. The degree of significance used was 0.05. If the value is significantly smaller than the degree of confidence

then accept the alternative hypothesis, which states that the independent variables partially affect the dependent variable, t-statistic (4.4506, 6.2268, 2.4891, -3.8819, 4.0545) > t-table(1.666).

Table 6. Estimation result for performance in the Islamic banking industry

Variables	Coefficients
A/S	14.8486***
	(5.1023)
CRN	-0.6393***
	(-3.7975)
NPF	-0.0025**
	(-2.2050)
SDM	-2.16E-07*
	(-1.7691)
FDR	0.1529***
	(3.4484)
Intercept	0.1738***
	(3.0969)
N	84
R-squared	0.99
F-statistic	1579.630

Note: t-statistics are given in the parantheses. ***, **, * represent significance level at 1%, 5%, 10%.

5.11 The Effect of Market Behavior Influence on Market Performance

The market behavior variable has a positive and significant impact on market performance. Ratio of advertising to sales is a ratio that measures the promotion of products and services with profitability, and the more effective the Islamic banks takes advantage of promotional costs in order to improve third-party funds of Islamic banking, the higher the opportunity of Islamic banking to increase the portfolio of Islamic finance and in the end the greater the income level.

5.12 The Effect of Market Structure on Market Performance

The market concentration variable is used as proxy for Islamic banking structure in Indonesia. The result reveals that the market concentration has a negative and significant impact on market performance. The higher the market concentration, the lower the market competition and in the end it leads to a monopoly competition market which counts for 60 percent of the market share. If the market concentration is 60 percent or above, then this may give a negative impact on the Islamic banking industry. The calculation showed that the market concentration average value per annum range from 37.07 percent to 35.87 percent.

The results of this study do not support the traditional SCP hypothesis that the market concentration is a market force. The greater the concentration of the costs for collusion, the lower the profit earned by the company within the industry. Further, the result of this study supports the structural efficiency hypothesis due to market share and concentration that are not proxies for market power, but it tends to be the proxy of the company's efficiency, so that a high concentration is not synonymous with collusion. The more efficient a company becomes, the greater the market share, so the industry tends to be more concentrated. The result of this study is in line with Neuberger (1997) on the banking industry in the United States, in which market concentration has a negative effect on profitability.

5.13 The Effect of Financing Quality on Market Performance

Non-performing loan is used as proxy for financing quality and the result reveals that the financing quality has a negative and significant impact on market performance. Higher non-performing loan indicates lower performance of Islamic banks as the banks has to maintain lower costs to cover financing problems. Islamic banks are required to have reserves for impairment losses on financial assets and non-financial assets in accordance with the applicable accounting standards. Lower non-performing loan indicates better management in the Islamic banks as more performing loan can be achieved and therefore it increases bank's profitability. The quality of Islamic banking financing during the study period is 4.01 percent per year in average and, it experienced a continuous improvement every year from 5.87 percent in 2007 to 2.80 percent in 2013. With the average ability of finance to deposit ratio that is higher than the loan to deposit ratio of conventional banks, Islamic banking industry has higher financing quality compared to conventional banking industry.

5.14 The Effect of Human Resource Development on Market Performance

The human resource development variable has a negative and significant impact on market performance. Apparently, the education costs incurred for human resource development has a negative impact on the profitability ratio of Islamic banks as shown by the decline in the average annual growth. During the study period, the average growth in the cost of education was highest in 2008 which was 72.64 percent, and it decreased until 2013, where the average cost of education per year was only 34.08 percent.

5.15 The Effect of Financing Capability on Market Performance

The financing capability variable has a positive and significant impact on market performance. The Islamic bank financing capability is measured as financing to deposit ratio that should be higher compared to lending to deposit ratio of conventional banking. This measure provides more value for Islamic banking in Indonesia in particular for *murabaha* financing. *Murabaha* financing provides the highest profit for Islamic banks amongst other Islamic financing products. The Islamic banking capability is higher using *murabaha* financing and this should be maintained in future, and further the higher profitability should encourage other forms of Islamic financing such as *musaraka* financing, *murabaha* financing, and *ijarah muntahiyah bit tamlik*.

6. Conclusions

The result of this study indicates that the market structure has a direct relationship to the market behavior, and then the market behavior also has a direct relationship with the market performance of the Islamic banking industry. This study also supports the views expressed by), Delorme *et al.* (2003), Neuberger (1997) and Carlton and Perloff (2005), about the SCP paradigm that has two-way relationship. Further, the market structure represented by market concentration variable has a positive two-way relationship with the market behavior that is represented by the promotion strategy. The market behavior has a positive two-way relationship with market performance that is represented by the profitability. The relationship between performance and the market structure also has a two-way relationship but their relationship is a negative relationship.

Using the SCP framework, this study includes non-performing loan, market share, business scale, profit sharing ratio, financing product quality, distribution scale, financing capability and human resource development. Hence, this study provides theoretical implications of the SCP model using two-way form with new additional variables of Islamic banking industry nature. The two-way relationship in the SCP model always occurs in the manufacturing industry and conventional banking. Islamic banks should maintain optimal quality of Islamic financing.

Finance to deposit ratio in Islamic banking is higher than the loan to deposit ratio of conventional banking, therefore it can be concluded that Islamic banking demonstrated better ability to provide better financing compared to conventional banks, but on the other hand it also suggested that the growth of funding sources is much smaller than the financing. To encourage

the growth of assets, the product and service differentiation is required therefore; there will be various products and services to meet all customers' needs of Islamic banking industry. It also encourages more excellent product of Islamic banking such as *murabaha* financing and *mudaraba* deposit. In addition, the result reveals that promotion strategy in the Islamic banking industry has been able to increase the market concentration; however it is not sufficient to improve profitability. The higher the intensity of the promotion of Islamic banking, the higher the understanding of Islamic banking product and service by the community and, in the end, it leads to an increase in the asset growth. Moreover, regulators should make regulations that Islamic banking can increase and allocate more costs for human resources development program

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