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Spin-off, market structure, and deposit funds in an Islamic banking industry

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Abstract

The regulator has imposed some Islamic business units to do the spin-off after the enactment of the Islamic banking act (The Act No. 21 of 2008). This paper examines the relationship between spin-off, market structure, and deposit funds. It uses panel data regression for analysis. The result shows that there is a difference in deposit funds between the spin-off banks and non-spin-off banks. The result also indicates that there is a relationship between spin-off, market structure, and deposit funds in the Indonesian Islamic banking industry. It implies that the regulator should a policy to accelerate the Indonesian Islamic banking industry.

Introduction

The Islamic banking industry in Indonesia has growing rapidly in the last two decades, especially after the enactment of The Act No. 21 of 2008 about Islamic banking. Spin-off policy has become one of the crucial issues in The Islamic banking act. In this act, Islamic business unit obligate to do the spin-off if they have fulfilled the spin-off criteria.

There have been many studies that have discussed the spin-off in the Islamic banking industry. Some of the studies supported that spin-off policy has positive impact on the performance of Islamic banks. Some of research concludes that there is a profitability differences between before and after the establishment of spin-off policy (Hamid, 2015; Poerwokoesoemo, 2016; Ramdani, 2015). Besides that, some of the studies also found that there a difference in deposit funds after the enactment of spin-off policy (Al Arif, 2014; Nasuha, 2012).

But, there are also some researches that conclude that spin-off had a opposite impact on the performance. Al Arif (2015); Al Arif, Haribowo, & Suherlan (2018) found that the spin-off policy had a negative impact on efficiency after the establishment of spin-off policies. Some of the research concludes that the spin-off policy should be evaluated (Al Arif, Nachrowi, Nasution, & Mahmud, 2017; Haribowo, 2016).

There is an increasing number of full-fledged Islamic banks after the enactment of the Islamic banking Act. initially, there were only three full-fledged Islamic banks and 26 Islamic business units, but now (until December 2017) there are 13 full-fledged Islamic banks and 21 Islamic business units. There will be an increasing of the competition if there is an increasing in a number of full-fledged Islamic banks. This phenomenon will also reduce the market concentration in the Islamic banking industry. The Islamic banking industry had operated in a high degree of market power (Abduh & Cupian, 2017; Shaffer, 2004). Shaffer (2004) provide the evidence that thrift institution may be a source of significant competition to community banks.

Up to now, there is no paper examines the impact of spin-off policy on market structure. The contribution of this research is to fill the gap that has not been studied about the relationship of spin-off policy on the market structure, and its impact on the performance. The indicator of Islamic bank's performance in this research is deposit funds. The deposit funds was using as a measurement because according to The General Council for Islamic Banks and Financial Institutions, one of the performance criteria was growth. The growth criteria include several measurements such as deposit funds, asset, and financing (Ascarya & Yumanita, 2008).

This research uses the structure-conduct-performance (SCP) hypotheses in discussing this topic. There are two main hypotheses in the bank's performance literature. First, the traditional structure-conduct-performance, these hypotheses also known as structure performance (SP) hypothesis. According to SP hypothesis, the profitability of a banking firm is dependent to the market structure and the competition level in

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the market (Gilbert, 1984; Goldberg & Rai, 1996; Samad, 2008). The higher concentration will leads a to a higher profitability, this statement was the main idea of the SP hypothesis. Decreasing the level of competition and increasing market concentration will lead to increased profits earned by the company.

The second hypothesis is the efficiency hypothesis. In the second hypothesis emphasizes superior efficiency as an explanation for a firm's profitability. The performance of a firm depends on the efficiency (Yudaruddin, 2015). The fact that occurred in the Islamic banking industry in Indonesia is contrary to the two hypotheses. Some of the studies had found that the efficiency in Islamic banks was declining after the spin-off periods (Hosen & Rahmawati, 2016; Novarini, 2009; Pramuka, 2011).

This study tries to examine the relationship between spin-off policy, market structure, and deposit funds in the Indonesian Islamic banking industry. This paper structured as follows: section 1 provides a background of the study. Section 2 provides data and methodology. Section 3 reports findings and discussion. Section 4 presents the conclusion.

Methods

The data used in this study comes from the bank's published report. The data used is quarterly data starting from 2011 until 2017. The number of full-fledged Islamic banks that became the object of this study is eleven Islamic banks. Two full-fledged Islamic banks do not include (such as Bank of BTPN and Bank of Aceh), because they became Islamic full-fledge banks in 2014 and 2016.

To examine the relationship between spin-off policy, market structure, and efficiency by is using panel regression. There are two models to be tested in this research. The mathematical equation proposed in this research as follows.

Model 1: Spin-Off policy, Market Structure, Efficiency with Two Interaction Variables

$$Dep_{it} = \alpha + \beta_1 D\_spinoff_{it} + \beta_2 MS_{it} + \beta_3 HHI_t + \beta_4 D\_spinoff_{it} *MS + \beta_5 D\_spinoff_{it} *HHI + \beta_6 ROA_{it} + \beta_7 Interest_t + \beta_8 Growth_t + \varepsilon_{it} \quad (1)$$

Where: Dep is deposit funds; D_spin-off is dummy variable of the spin-off. which: 1 = spin-off banks and 0 = others; MS is market share from each bank in period t; HHI is the market structure that proxied by Herfindahl Hirschman Index; ROA is profitability ratio that measured by return on asset; Interest is average interest rate of conventional banks; Growth is economic growth

Model 2: Spin-Off policy, Market Structure, Efficiency with One Interaction Variables

$$Eff_{it} = \alpha + \beta_1 D\_spinoff_{it} + \beta_2 MS_{it} + \beta_3 HHI_t + \beta_4 D\_spinoff_{it} *MS + \beta_5 ROA_{it} + \beta_6 Interest_t + \beta_7 Growth_t + \varepsilon_i \quad (2)$$

Where: Dep is deposit funds; D_spin-off is dummy variable of spin-off. which: 1 = spin-off banks and 0 = others; MS is market share from each bank in period t; HHI is market structure that proxied by Herfindahl Hirschman Index; ROA is profitability ratio that measured by return on asset; Interest is average interest rate of conventional banks; Growth is economic growth.

Result and Discussion

The result of this study can summarizes in Table 1. Constant values in both models show significant results. This result means that if all variables are assumed to be zero, then the deposit funds will be valued as the coefficient value listed in Table 1. Furthermore, market share variables in both models showed the significant results. This result means that the market share had an impact on deposit funds. The positive sign means that the higher market share of Islamic banks will lead higher deposit funds that obtained by the Islamic banks. This result implies that the Islamic banks should increase the market share to had a larger opportunity to gain a higher deposit funds.

The next result is related to the market structure, in both models show a significant results. This result implies that the market structure in the Islamic banking industry is linier with the deposit funds. The more concentrated of the industry will lead a declining of deposit funds. The lack of competition or inter-bank competition makes many banks less innovative products related deposit fund raising. Based on these results indicate that the regulator should be able to create regulations or rules that can foster a healthy business competition climate among sharia banks.

Table 2 shows the market concentration of Islamic banking industry either by using Herfindahl-Hirschman Index (HHI), Concentration-Ratio 2 (CR2), or Concentration-Ratio 4 (CR4). The market structure in the Islamic banking industry is tend in high oligopoly. Although there is a declining in market concentration in the Indonesian Islamic banking industry after the enactment of The Islamic banking Act. The domination of the two most significant Islamic banks (Bank of Muamalat Indonesia and Bank of Sharia Mandiri) had declined after the enactment of spin-off policy. Market power is related with market concentration.

Table 1. The Summary of Empirical Result

	Model 1	Model 2
C	18.17412	17.57825
t-stat	28.08037	28.30575
Market Share	14.34010	14.29555
t-stat	37.60445	37.02076
HHI	-16.09996	-13.76738
t-stat	-4.592584	-3.984384
D-Spinoff	-0.611786	0.418648
t-stat	-1.612178	3.466627
MS*Dspinoff	10.29627	10.08851
t-stat	5.173606	5.005241
HHI*Dspinoff	7.224210	
t-stat	2.860069	
ROA	0.068046	-.074868
t-stat	3.833594	-4.200020
BOPO	-0.002576	-0.001030
t-stat	-1.196801	-0.487717
Inflation	-0.561418	-0.282169
t-stat	-0.239086	-0.118672
Interest	-0.046945	-0.055674
t-stat	-0.570862	-0.668480
Growth	-0.209278	-0.178191
t-stat	-1.316650	-1.108777
F-stat	198.5243	213.8788
Adj. R^2	0.878181	0.874881

Table 2. Market Concentration in The Islamic Banking Industry

Years	HHI	CR2	CR4
2005	0.3045	0.7684	0.8665
2006	0.2473	0.6794	0.7871
2007	0.2273	0.6504	0.7603
2008	0.2117	0.6185	0.7329
2009	0.1912	0.5832	0.7053
2010	0.1825	0.5641	0.7028
2011	0.1824	0.5649	0.7018
2012	0.1542	0.5175	0.6467
2013	0.1434	0.4946	0.6284
2014	0.1344	0.4770	0.6239
2015	0.1193	0.4328	0.5932
2016	0.1016	0.3776	0.5346
2017	0.1020	0.3759	0.5387

When associated with the structure of performance structures first proposed by Mason. According to Mason (1939) in Martin (1992) the fewer the number of firms will make a market less competitive, and more companies will make the market more competitive. According to Martin (1992) the competitiveness improves the performance of a market, with several indicators such as profitability, efficiency, and progressiveness. Ayadi & Ellouze (2013) shows that there is a relationship between market structure and bank performance. This result is consistent with Zhang, Jiang, Qu, & Wang (2013) that conclude that there is a negative association between market concentration and performance.

The policy should be directed to increase the market share of the most efficient banks (Fu & Heffernan, 2009). Ajide & Ajileye (2015); Louati & Boujelbene (2015); Rahim (2016); Rashid, Yousaf, & Khaleequzzaman (2017); Schaeck, Cihak, & Wolfe (2009) stated that the policies promoting competition among banks, if well executed, have the potential to improve the financial stability and the financial soundness. Hamza and Kachtouli (2014) stated the in a competitive environment; each bank is required to analyze the market structure and competitive condition. But, it should be noted that if there is increased competition by small firm owners that would be a negatively effect on the performance (Scott & Dunkelberg, 2010).

The next variable is the dummy variable, namely spin-off. There is a difference between the result in model 1 and model 2. Model 1 shows that the spin-off variable doesn't had an impact on deposit funds. It mean, that there is no differences between the spin-off banks and non-spin-off banks. This result is consistent with Al Arif et al. (2017), that also found that the spin-off policy did not have an impact on deposit funds growth. However, in the model 2 shows that there is difference in deposit funds between the spin-off banks and non-spin-off banks. The spin-off banks had a larger deposit funds rather than the non-spin-off banks. The result of model 2 support the research that conducted by Al Arif (2014); Nasuha (2012), which is the spin-off policy had a good impact on the deposit funds growth in the Indonesian Islamic banking industry.

The next result that also can be seen in Table 1 is the interaction between market share and spin-off variables. Interaction variable results show a positive effect, indicating that the spinoff variable influences market share and further affects third party fund raising. This result implies that the spin-off bank has a tendency to increase its asset market share. Therefore, an increase in the market share of this asset strengthen and increase deposit fund collecting by Islamic bank.

Furthermore, the interaction between market structures (proxied by HHI) with spin-off show positive results. This indicates that the spin-off variable will affect the market structure, and will further affect the amount of deposit fund accumulation in the Islamic bank. This result implies that the spin-off banks have an impact on market structure changes, which are currently from the four largest sharia banks, there are two sharia banks which are spinoffs (i.e. Bank of BNI Shariah and Bank of BRI Shariah). Changes in market structure will further affect the difference of third party fund collecting made by syariah bank.

Islamic banks, especially the spin-off banks, must be able to innovate their savings products in order to attract potential customers to open accounts in Islamic banks. Besides that, the new product also maintain the old customers to increase their deposits in Islamic banks. The spin-off policy pursued by the government generally decreases the two largest Islamic banks in Indonesia, namely Bank of Shariah Mandiri and Bank of Muamalat Indonesia. However, this policy slightly changed the competition map of the sharia banking industry. This is due to the fact that there are two spin-off banks that are able to enter into the four largest sharia banks in Indonesia. In general, the sharia banking industry still shows an oligopoly market structure, it is a duty for the regulator to create a healthy business climate. The finding of this result also suggests that conventional banks (the parents banks) must make performance improvements in Islamic business units before the spin-off.

The level of profitability also shows significant results, but there are differences in results between model 1 with model 2. If the model 1 shows that the level of profitability shows a positive effect on the amount of third-party funds, then the model 2 shows the opposite results. This result difference is caused by the interaction variable performed. In model 1, two additional interaction variables were added. While in model 2, only one additional interaction variable is added.

Operational efficiency level variables, inflation rate, and interest rate do not show any significant effect on third party fund raising amount. This shows that the efficiency performed by Islamic banks does not affect the high amount of deposit fund raising. This result is difference with the research that conduct by Bello and Isola (2014); Tajgardoon, Behname, and Noormodamadi (2012) stated that the efficiency seems to be the main factors for the bank's performance. The spin-off policy will increase the cost of the new bank; policymakers should make a policy that can decrease the cost structure of the banks. Zhao, Casu, & Ferrari (2010) found that deregulation will increase the bank's performance.

The inflation rate also shows the same thing, it shows that high inflation rate does not affect the high amount of deposit fund raising. The interest rate variable shows an anti-thesis results with various findings that existed during this time, where the interest rate does not affect the amount of deposit funds collected in Islamic banks. This shows that customers of Islamic banks now have moved from rational customers to emotional customers who are not affected by the amount of interest offered by conventional banks. The growth rate variable in model 1 and model 2 has no effect on deposit funds in sharia bank. In general, the rate of direct economic growth indicates whether or not the economic climate of a country is conducive. If the economy is conducive, it will increase the interest of saving from society.

This study finds that there is a relationship between spin-off policy, market structure, and deposit funds. The spin-off policy has led the increase a number of full-fledged Islamic banks in Indonesia. This result affect the declining in market concentration of the industry. The interaction between spin-off policy and market structure (proxied by Herfindahl-Hirschman Index) affects the deposit funds in the Islamic banks. The spin-off policy had a positive impact on the deposit funds.

The policy of segregating the Islamic business unit into a full-fledged Islamic bank is one of the efforts to increase the number of Islamic banks in Indonesia. This fact is an effort to make the Islamic banking industry more competitive. The additional number of full-fledged Islamic banks is done through the spin-of policy. This action hopefully will be able to improve the performance of sharia banking. However, the structure is also affected by supply and demand conditions. This explains why the separation that affects the addition of the number of full-fledged Islamic banks has not been able to improve the performance of the Islamic banking industry in general and the spin-off banks in particular.

The result also implies that the spin-off policy should be evaluated, especially for the Islamic business units that owned by the regional development banks. Almost the regional development banks had a small asset, it would give a potential negative impact for the Islamic business units if they are forced to do the spin-off (Haribowo, 2016). The smaller asset of the parents' banks (and the Islamic business units asset) would had less capitalized banks. The less capitalized banks will affect the performance of the banks. Sufian and Habibullah (2012) said that the well capitalized banks tent to be more profitable.

Actually, there is an alternative strategy to enchance the performance on Islamic banks, this strategy is through merger policy (Miftah & Wibowo, 2017). Berger (1995) said that the merger activity was motivated by the prospective benefit from greater market power (Berger, 1995). Besides merger, the other strategy such as acquisition of Islamic business units of full-fledged Islamic banks also can be do. Ahmed, Ahmed, & Kanwal (2018) said that the merger and acquisition activity will increase the performance of the companies in the market. But, the merger in the market could deteriorate the competitive process (Ahamed, 2012).

Conclusion

This study examines the relationship between spin-off policy, market structure, and deposit funds in the Indonesian Islamic banking industry. The result shows that there is a deposit funds difference between spin-off banks and non-spin-off banks. Besides that, the result also indicates that there is a relationship between spin-off, market structure, and deposit funds in the Indonesian Islamic banking industry. The increasing number of full-fledged Islamic banks doesn't mean the performance will increase.

This research implies that the regulator should promote the competitive policy to increase the financial performance and soundness of Islamic banks. The spin-off policy is not the only one strategy to enhance the performance in the Indonesian Islamic banking industry. The other strategies that might be can enhance the accelerate the performance of Islamic banking industry are merger, the acquisition of Islamic business units by full-fledged Islamic banks, or the full conversion of the parents' banks from conventional bank into full-fledged Islamic bank.

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