

# Application of Supply Chain Management in Sharia Commercial Banks Performance in Indonesia by Sharia Conformity and Profitability Index (SCnPI) Approach

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**Abstract-** This study aims to measure the supply chain management (SCM) effects on the performance of Islamic Commercial Banks with an approach to the Sharia Conformity and Profitability Index (SCnPI). This research is descriptive quantitative research. The object of this study is Islamic banking which was listed on the Indonesia Stock Exchange in 2013-2018. Sampling using a purposive sampling method. Data obtained by means of documentation, and data needed in the form of annual reports Islamic commercial banks that have information to measure the independent variable. The results show that there is a trade-off between the Shariah compliance index and the profitability index of Sharia Commercial Banks in Indonesia for 2012-2017. The biggest trade-off occurred in Victoria Syariah banks, with a sharia compliance index of 0.84, the highest Shariah compliance index achieved by Bank Panin Syariah which was 0.91, and the lowest average Sharia compliance index occurred at Mega Syariah banks which was 0.63. Judging from the average profitability, the highest ratio is shown by Bank Panin Syariah, which is 6.38. In short, SCM is a meaningful tool for the banking firms or the organizational performance and various departmental heads are very much aware to SCM practices for the greater banking performance.

**Keywords-** SCM, Key Performance, Sharia Commercial Banks, Sharia Conformity and Profitability Index (SCnPI)

## 1. Introduction

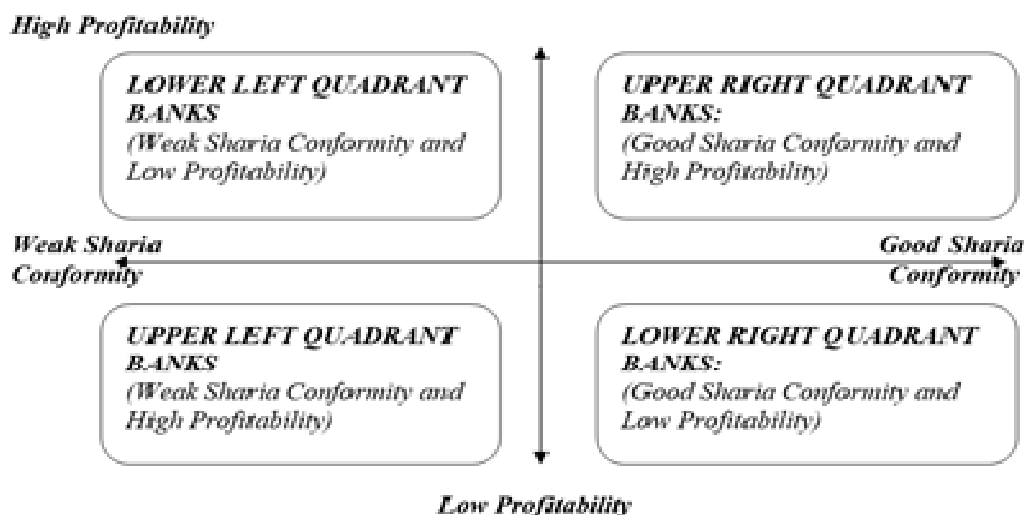
With the increasing competition in the global market, it is found that there is very limited product lifecycle for the business firms and more attention is required on SCM as well [1]-[3]. The idea of SCM is known as the set of activities and related approaches which integrates the various suppliers, manufacturers, warehouses and other activities for the timely delivery of products and services [1].

The development of Islamic economics in Indonesia has been adopted into the broad framework of economic policy. Bank Indonesia as the banking authority in the country has established sharia banking as one of the pillars supporting the dual banking system and is pushing for a wider sharia bank market share. Islamic banks are one of the instruments in Islamic economics. Meanwhile, the goal of Islamic

economics is the attainment of Islamic *maqasid* by realizing community justice [17]. The purpose of establishing Islamic banks, namely directing the economic activities of the Ummah to *bermuamalat* in Islam, especially muamalat associated with banking, so as to avoid usury practices or other types of business/trade that contain elements of *gharar* (deception), and create a justice in the economic sector by leveling income through investment activities, so that there is not a very large gap between the capital owner and those who need funds.

One of the challenges in the development of Islamic banking is the lack of financial performance measurement tools that are in accordance with Islamic principles. For decades, Islamic bank performance measurements still use conventional bank performance measures through financial ratios, namely CAMELS (capital, asset quality, management, Earnings, liquidity) ratios and sensitivity to market risk. The CAMELS ratio is an indicator to determine the ability to generate profits for the next fiscal year or can be used as an indicator to determine the health of a bank. Measurement of the performance of Islamic banks using the CAMEL ratio has not been able to show an assessment of the performance of Islamic banks, as an Islamic economic subsystem, namely to realize justice and balance of the community [17]. Thus, Islamic banking seems profit-oriented and not based on social goals. In an effort to provide performance information that is not only based on conventional, then the performance measurement using the Sharia Conformity and Profitability approach needs to be done.

Performance measurement based on SCnPI sharia banking through two approaches, namely the sharia conformity approach and the profitability approach. Sharia suitability variables are measured by calculating the average sharia suitability ratio, including Islamic Investment Ratio, Islamic income ratio, and profit-sharing ratio [19]. While the profitability variable, measured by calculating the average profitability ratio, includes Return on Assets (ROA), Return on Equity (ROE) and Profit Margin (PM). Each ratio is then averaged and the results will be formed a four-quadrant graph, where each quadrant is separated by the average ratio of all banks. The graph of the measurement concept of the SCnPI model can be seen in Figure 1.



**Figure 1.** Model SCnP

The SCnPI model divides the graph into four quadrants namely, URQ (Upper Right Quadrant), LRQ (Lower Right Quadrant), ULQ (Upper Left Quadrant), and LLQ (Lower Left Quadrant). The right-URQ (Upper Right Quadrant) corner shows an Islamic bank that has a high level of Shariah compliance and a high level of profitability. The lower right quadrant-LRQ (Lower Right Quadrant) shows an Islamic bank that has a high level of Shariah conformity but has a low level of profitability. Upper left quadrant-ULQ (Upper Left Quadrant) shows an Islamic bank that has a relatively low level of Shariah conformity but has a high level of profitability. Meanwhile, the lower left quadrant of the LLQ (Lower Left Quadrant) indicates an Islamic bank that has a level of Shariah compliance and a lower level of profitability [10].

The urgency of this research is where Bank Indonesia (BI) measures bank performance using the conventional approach, namely CAMELS. Furthermore, economists and researchers develop other performance measurements, such as FRA (Financial Ratio Analysis), EVA (Economic Value Added), DEA (Data Envelope Analysis), and SFA (Stochastic Frontier Analysis). Conventionally based performance appraisal alone, is not appropriate if applied to Islamic banking, because it tends to be oriented solely on profit, so it is not in accordance with Islamic principles. In an effort to provide performance information that is not only based on conventional, then the performance measurement using the Sharia Conformity and Profitability approach needs to be done. The aim is to find out the extent of compliance/suitability of Islamic bank operations with Islamic principles and at the same time measure the level of profitability achieved by Islamic banks.

## 2. Literature Review

Supply chain managers take a comprehensive perspective of relevant actions and seek to improve achievement by coordinating their activities to satisfy customers. Sharia Banks are Banks that carry out their business activities based on Sharia Principles. The Islamic banking industry is characterized by bank

transactions with no interest rates [6]. Banks must not only serve the needs of various stakeholders but more importantly, they must ensure that their activities are in accordance with Shariah requirements [8]. Islamic banks are less efficient, but have a higher intermediation ratio, have higher asset quality, and have better capital than conventional banks (Al-Nasser Mohammed & Muhammed, 2017). While conventional banks use mainly one contract to finance loan contracts, Islamic financial institutions use a number of contracts such as Musharaka, Mudharaba, Ijarah and Murabahah [20]. Stakeholders encourage Islamic banks to use financial performance and indicators of Islamic compliance to evaluate Islamic banks [7].

The banking sector is believed to be one of the driving forces of economic growth in many countries [11]. The growth of Islamic banking in Indonesia in quantity is shown by the increase in Islamic banks opened by conventional banks [16]. Islamic banks showed an increase in several elements, namely productive power and liquidity [4]. The need for indicators to determine the scale or index that measures the performance of Islamic banking differs from conventional banking performance measurement techniques [9]. Islamic banks to find a picture of their performance need to adopt both sharia-based and financial-based measurements [12].

Islamic banks are required to have good performance measurement tools, so they can compete in the national banking market that has competitive competition [18]. In measuring the performance of sharia banks it is necessary to apply the SCnP model, combining the Shariah suitability ratio (SC) and other ratios on CAMEL (for example combining Capital, Asset, Management, Liquidity, and Sensitivity ratios) [14]. Improving bank performance is influenced by overall management practices and new standards in operational efficiency and financial risk management [13].

Islamic financial performance index is used as a measure of Islamic bank financial performance consisting of profit sharing ratio, zakat performance ratio, fair distribution ratio, and the ratio of Islamic

income versus the ratio of non-Islamic income [2]. Simultaneously the CAR, NPF, FDR, REO, BI rate, and inflation variables have a significant effect on ROA [3]. An examination of various performance measures and inter-temporal comparisons of performance revealed that Islamic banks made (statistically) significant progress on return on assets (ROA) and return on equity (ROE) during 1984-1997 [15]. The development of performance in terms of compliance level of Islamic Banks has decreased, but the level of profitability has increased [5].

### 3. Research Method

This type of research is descriptive quantitative research that emphasizes testing theories through measurement of research variables with numbers which then describe the results of the analysis that has been obtained. The object of research is Islamic banking which was listed on the Indonesia Stock Exchange in 2013-2018. The data needed in this study is the annual report (annual report) Islamic commercial banks that have information to measure the independent variable. The data used is secondary data. Data collection in this study was carried out by the documentation method. Data is collected, recorded and reviewed. Meanwhile, for literature study obtained from previous research and supported by other literature such as books, journals, and other relevant information.

Performance measurement based on Sharia Profitability and Conformity Index uses 2 variables, namely Sharia conformity (Shariah compliance) and Profitability (profitability). The sharia obedience variable measures the extent of the compliance of sharia banks to the established sharia principles. While profitability measures the ability of Islamic banks to make a profit. To measure sharia conformity there are 3 indicators: 1) Islamic Investment; 2) Islamic Income; 3) Profit Sharing. To measure profitability using 3 proxies: ROA, ROE, and NPM.

## 4. Result and Discuss

### 4.1 Research Samples

Strategic SCM integration integrates customer and supplier information into the enterprise throughout

**Table 2.** Results of Measurement of Islamic Commercial Bank SCNP Index from 2012-2018

No	Code	Bank Name	Average Index	
			Syariah Conformity	Profitability
1	BMS	Bank Mandiri Syariah	0.76	1.71
2	BMI	Bank Muammalat Indonesia	0.83	2.52
3	BNIS	Bank Negara Indonesia Syariah	0.73	4.14
4	BCAS	Bank Central Asia Syariah	0.82	1.43
5	BVIC	Bank Victoria Syariah	0.84	-2.08
6	BRIS	Bank Rakyat Indonesia Syariah	0.77	4.76
7	PANIN	Bank PANIN Syariah	0.91	6.38
8	MEGA	Bank Mega Syariah	0.63	0.11
9	BJBR	Bank Jabar Syariah	0.75	-1.39

Table 2 explains that there is a trade-off of the average SCNP index between Shariah compliance with the level of profitability achieved. A sharp trade-off occurred at Bank Victoria Syariah, with a sharia compliance index of 0.84 but the average profitability

cross business communications and in-house cross-functional teams. Sharia Commercial Banks in Indonesia that were received in the financial services authority from 2013-2018 there were 16 banks. However, there are 6 banks that do not have complete data according to the variables needed in this study. Thus, there were 9 Sharia Commercial Banks observed during the 2012-2017 period, so that 64 observational samples were obtained. Data for Sharia Commercial Bank research samples in Indonesia can be seen in Table 1.

**Table 1.** List of Sharia Commercial Banks that are the research samples

No	Code	Bank Name
1	BMS	Bank Mandiri Syariah
2	BMI	Bank Muammalat Indonesia
3	BNIS	Bank Negara Indonesia Syariah
4	BCAS	Bank Central Asia Syariah
5	BUKOPIN	Bank Bukopin
6	BRIS	Bank Rakyat Indonesia Syariah
7	PANIN	Bank PANIN Syariah
8	MEGA	Bank Mega Syariah
9	MAYBANK	Maybank Syariah

### 4.2 Sharia Commercial Bank-Level Measurement

Sharia Conformity and Profitability Index Measurement Results of Sharia Commercial Banks in 2012-2017 show that the highest Shariah compliance index was achieved by Bank Panin Syariah, which was 0.91. Furthermore, in the second place achieved by Bank Negara Victoria Syariah (BVic) which is equal to 0.84, followed respectively by Bank Muammalat Indonesia (0.83) and Bank Central Asia Syariah (0.82). While the lowest average SCNP index occurs in Bank Mega Syariah, which is 0.63. Judging from the average profitability, the highest ratio was also shown by Bank Panin Syariah which was 6.38, followed by Bank BRI sharia (4.76) and Bank BNI Syariah (4.14). Meanwhile, Victoria Syariah bank and Syariah Jabar bank experienced negative profitability during the study period. The results of the Sharia Commercial Bank Conformity and Profitability Index Measurement for 2012-2017 can be seen in Table 2.

index was -2.08; while the Bank Jabar Syariah compliance index is 0.75 while its profitability index is -1.39. during the period of 7 (seven) years (2012-2018), 7 (seven) Islamic banks in Indonesia are in a condition of high Shariah suitability, high profitability

levels, namely BMS, BMI, BNIS, BCAS, BRIS, BPS, and BSM. Whereas 2 banks are in the LRQ position which is a high level of Shariah compliance, but their

profitability is low, namely BJB and BVicS. Shariah suitability levels at Islamic banks in Indonesia can be seen in Table 3.

**Table 3.** Results of Measurement of the SCnP Index and the SCnP Position of Sharia Commercial Banks from 2012-2018

Code	Bank Name	Average Index		Quadran Diagram SCnP
		Syariah Conformity	Profitability	
BMS	Bank Mandiri Syariah	0.76	1.71	URQ
BMI	Bank Muammalat Indonesia	0.83	2.52	URQ
BNIS	Bank Negara Indonesia Syariah	0.73	4.14	URQ
BCAS	Bank Central Asia Syariah	0.82	1.43	URQ
BVIC	Bank Victoria Syariah	0.84	-2.08	LRQ
BRIS	Bank Rakyat Indonesia Syariah	0.77	4.76	URQ
PANIN	Bank PANIN Syariah	0.91	6.38	LRQ
MEGA	Bank Mega Syariah	0.63	0.11	URQ
BJBR	Bank Jabar Syariah	0.75	-1.39	LRQ

## 5. Conclusion

The intention of supply chain management is to eliminate communication barriers and remove redundancies throughout coordinating, monitoring and controlling processes in the organization. Supply chain integration attempts to establish the inter links between each component of the chain, to help better decision making and to allow all components of the chain to cooperate in a more flexible way. The conclusions that can be drawn from the results of Sharia Conformity and Profitability Index calculations for Sharia Commercial Banks in Indonesia for the 2012-2017 period There is a trade-off between the Sharia compliance index and profitability index of Sharia Commercial Banks in Indonesia for the 2012-2017 period. The biggest trade-off occurred in Bank Victoria Syariah, with sharia compliance index 0.84 but the average profitability index was -2.08; while the Bank Jabar Syariah compliance index is 0.75 and its profitability index is -1.39. The highest Shariah compliance index is achieved by Bank Panin Syariah, which is 0.91. Judging from the average profitability, the highest ratio was also shown by Bank Panin Syariah which was 6.38. Bank Victoria Syariah and Bank Islamic Jabar experienced negative profitability during the study period. Islamic banks that are suitable for the URQ position (High level of Shariah conformity, high profitability, namely: BMS, BMI, BNIS, BCAS, BRIS, BPS and BSM. 5), namely BJB and BvicS.

## 6. Suggestion

Suggestions are given for future research improvements. Expanding the object of research is not limited to Sharia Commercial Banks, but includes Sharia Business Units and Islamic People's Financing Banks and Combining secondary and primary data so that internal and external internal validity will be better, so that research results more valid.

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