Analysis of Tawhidi String Relation (TSR) Towards Factors that Affect the Distribution of Financing of Sharia Banking in Indonesia Period 2009-2019

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Article

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ANALYSIS OF TAWHIDI STRING RELATION (TSR) TOWARDS FACTORS THAT AFFECT THE DISTRIBUTION OF FINANCING OF SHARIA BANKING IN INDONESIA PERIOD 2009-2019

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Abstract
This study uses the Sharia Commercial Bank and Sharia Business Unit as a whole as a unit of research object, with the research period from 2009-2019 (on a quarterly basis). The analysis technique used is multiple linear regression, while the hypothesis test uses t-test to partially test the effect of variables, and the F-test to test the effect of variables simultaneously with a significance level of 0.05. To find out the relation process used Tawhidi String Relation (TSR) analysis based on Unity, Correlation and Evolution. Based on the research, the results show that Third Party Funds (TPF) have a positive and significant effect on the distribution of Islamic Banking financing. Non Performing Financing (NPF) has a positive and not significant effect on the distribution of bank financing. While Bank Indonesia Sharia Certificates (BISC) have a negative and significant effect on the distribution of bank financing. Based on the TSR analysis, it was concluded that BISC had a negative effect on all variables used in this study, both: DF, TPF and NPF. Therefore, this research can be a criticism for the Islamic banking industry in channeling financing in the form of BISC.

Keywords: Tawhidi String Relation (TSR), Circular Causation (CC), Interaction, Integration and Evolution Process (IIE)

JEL Classification: C01, C32, C87.

1. Introduction
Sharia Banking is an intermediary institution that carries out four main functions, namely: receiving cash deposits from the public, channeling money back to the community in the form of financing, and providing financial traffic and social services. In its function of receiving money deposits, a significant increase can be seen from the total Third Party Funds received, from 2009 which only amounted to Rp. 38.040 billion in 2019 to Rp. 382.734 billion. In terms of channeling financing, it is proven that Islamic banks are able to channel funds optimally. This can be seen from the value of Financing to Deposit Ratio (FDR) which reaches an average of 89% -107%.

In addition, the Sharia Banking Market share is always increasing every year. In 2005, for example, the market share of Islamic Banking was around 1.78% while the following year increased to 2.03%. In the end of October 2011 it was 4.47%. At the beginning of 2019 the figure rose to 5.94%. However, this increase is still very small compared to the size of the existing market potential. In the BI report, it was stated that the market share of Islamic Banking in Indonesia is not more than 5%. This figure shows that in terms of quantity, the intermediary function of Islamic banks has not been significant.
The bank acts as a party that brings together the components of society that need a 'place' to store their funds with other components of society that need funds. Therefore, the intermediation function will be implemented properly if the bank is able to maintain the circulation of funds in a circular relationship between the excess parties and those who lack funds. Not only has the quality of the circulation of funds that must be maintained by the banking world, but the quantity or volume of funds that must be played also affected the intermediation function. If banks are only capable of raising funds in small amounts, surely the volume of funds that can be channeled is also small. If this happens, the intermediary function of the bank is not running optimally because banks are only able to bring together a small portion of the surplus and deficit parties. Based on this, in order to carry out the intermediation function, banks must be able to mobilize large amounts of funds, so that the greater the number of surplus and deficit parties that can be brought together by the Bank Sharia Indonesia.

The size of the distribution of funds provided by Sharia Banks is greatly influenced by the size of Third Party Funds (TPF), but based on statistical data of Sharia Banking from Bank Indonesia, further research is needed because the size of the growth of TPF does not always make the Sharia Bank increase the growth of funds channeled to the community. The average size of Third Party Funds (TPF), Capital Adequacy Ratio (CAR), Non Performing Financing (NPF), Bank Indonesia Sharia Certificate (BISC), need to be considered in increasing the distribution of funds.

Based on sharia banking report data published by OJK, we can see that TPF has an increasing movement from 2009-2019 in the direction of the financing movement (positive indication). CAR has an upward movement from 2009-2019 in the direction of the financing movement (positive indication), and then decreased from 2007-2019 not in the direction of the financing movement (negative indication). The NPF has an upward movement from 2009-2019 in the direction of the financing movement (positive indication). BISC has fluctuating movements from 2009-2019 in the direction of the financing movement (negative indication).

Considering the importance of channeling funds for the country's economic growth and the many factors that influence the distribution of funds to economic sectors in the community, it is necessary to conduct further research aimed at finding out what factors influence the financing of Islamic Banking in Indonesia. With the knowledge of these factors, Sharia Banking can prepare anticipatory and strategic steps towards all changes that occur in the variables that become these influential factors. Thus the banking assets can be increased and the optimal distribution of funds can be expanded to various economic sectors.

2. Hypotheses Development

In this study, financing conducted by Islamic Banking is one form of efforts to apply the teachings of God in economic practice. Therefore, the financing carried out by Islamic Banking uses sharia contracts. As a financial institution, Islamic banks are demanded to truly carry out their transactions with sharia principles adopted from the Al-Quran and Hadith as the basis of their operational footing. Thus the sharia values must really be applied by Islamic Banking.

The main objective of a Sharia Bank to finance is to revitalize economic sectors and improve the welfare of the community. Thus the Islamic Bank is required to truly implement the values of Islamic teachings contained in the form of justice, togetherness, partnership, mutual need, mutual help and complementary shortcomings.

Banking financing is a process which in its implementation involves many people, both shahibul mall customers, nashabah mudharib and other banking service users. So that in the process interaction will occur. Funding as an economic driver has systemic interrelated variables. Each of these variables, need each other, fully support each other support and
influence each other. The mutual need for behavior in the system reflects between these variables interacting and pairing (pair-ness) with each other.

In the sharia approach known processes of interaction, integration and evolution (IIE). In the process of Inraction, Integration and Evolution, there is a reciprocal relationship between one another, so that cell mutations can be avoided. According to Budhijana (2010), if we put religious values ($θ$) that originate from the Koran and the Sunnah ($Ω, s$) it will foster and develop the cell nucleus. The nucleus of the cell develops and changes over time. It creates a delicate network that is interrelated and develops strongly and enlarges simultaneously. This is caused by the learning process. Therefore, to determine the level of influence of each factor on other factors, a model (Circular Causation) is needed.

Choudhury (1999, 2004) explains that the Circular Causation equation is a series of equations due to a causal relationship that relates to one factor to another. The variables involved are pairs (pairness) of an independent variable, each of which will rotate continuously and alternately to become the dependent variable. Circular causation will explain the results of the simulation of the human wellbeing function, through a cycle of processes (repetition process Al-Baqarah 156, originate and reoriginate Yunus 4; As-Sajdah 4; Al-A’Raf 54, refinement and improvement process As-Sajdah 9).

According to Choudhury and Harahap (2004, 2007) and Harahap (2010) Circular Causation is recommended in Islamic economic analysis that uses the Tawhidi String Relation (TSR) model and is a differeniatior that needs to be worked out comprehensively (kaffah) of other economic analyzes.

There are several studies that have been done by previous researchers. Siregar (2004) conducted a study whose results showed that the SWBI bonus variable had no significant positive effect on the distribution of funds. This result is different from Novianto's research (2008) which says that SWBI has a significant negative effect on financing. From the results of Siregar's (2004) research it was also found that TPF had a significant positive effect on the distribution of funds. This is the same as the results of Novianto's research (2008). While the results of Novianto's research (2008) said that NPF was found to have no significant effect on Islamic bank financing. Siregar (2004) said that NPF had a significant negative effect on fund distribution. Similar to the findings of Gozali (2007) and Nusantara (2009) who said that NPL had a significant negative effect on the ROA variable with a significance value of less than 0.05, 0.039. Siagian and Yasin (2009); NPL significantly influences ROA. NPL has a negative coefficient regression coefficient of 0.325, meaning that ROA will decrease by 0.325 or 32.5% if there is a change in the NPL variable of 1%. Chorida (2010) conducted a study in which the results were found that the amount of third party funds, inflation, and the level of financing margins significantly influence the allocation of SME financing.

Although there are some similarities at a certain point with previous studies, both in conventional banking and Islamic banking, but in this study there are significant and fundamental differences that make this study completely different from previous studies. This research is based on the basic theory of Tawhidi String Relation (TSR), which is an analytical relations process to understand and know world events by originating from the Koran and Hadith. This research method uses Circular Causation, which not only limits and makes one variable dependent and independent, but each variable will be tested proportionally so that it is known which variable is actually the most influential, so the results are more accurate.

Based on the description above, the preparation of the hypothesis in this study is as follows:

1. Third Party Funds (TPF):
   - Ho: There is no TPF influence on Islamic Bank financing in Indonesia
   - Ha: The influence of TPF on Islamic Bank financing in Indonesia
2. Non Performing Financing (NPF)
   Ho: There is no NPF effect on Islamic Bank financing in Indonesia
   Ha: The influence of NPF on Islamic Bank financing in Indonesia

3. Bonus Bank Indonesia Certificates (BISC)
   Ho: There is no BISC influence on Islamic Bank financing in Indonesia
   Ha: The influence of BISC on Islamic Bank financing in Indonesia

4. TPF, NPF and SBI
   Ho: There is no influence of TPF, NPF, and BISC on Islamic Bank financing in Indonesia
   Ha: The influence of TPF, NPF, BISC on Islamic Bank financing in Indonesia

3. Method, Data, and Analysis

   The population used as objects in this study were all Islamic banking registered at Bank Indonesia during the period 2009 to 2019 consisting of 14 Sharia Commercial Banks and 20 Sharia Business Units.

   This research uses quantitative methods using secondary data that is processed using the E-Views 4.1 program. The main data used in this research uses secondary data taken from Bank Indonesia statistics, OJK statistics and Bank Sharia Indonesia Financial Reports and from the 2009-2019 period published on the Bank Indonesia website and OJK website. Other completeness of data, will be used official secondary data available at government institutions, such as: Central Statistics Agency.

   Data collection techniques used in this study are documentation techniques, namely data collection techniques by studying, classifying and using secondary data in the form of notes, reports, especially bank financial statements related to research. After the data is collected, it is checked and tabulated according to the needs of the analysis, so that a good and accountable analysis is obtained.

   The analysis method used in this study uses Circular Causation (CC). Choudhury (1999, 2004) explains that the Circular Causation equation is a series of equations due to a causal relationship that relates to one factor to another. The variables involved are pairs (pairness) of an independent variable, each of which will rotate continuously and alternately to become the dependent variable. Circular causation will explain the results of the simulation of the human wellbeing function, through a process of rotation.

   From the operational definition of variables (DF → Y1, TPF → X1, NPF → X2 and BISC → X3), a multiple regression mathematical equation model is formed for this study as follows:

   $$\text{DF} = f(\text{TPF}, \text{NPF}, \text{BISC})$$

   $$Y1 = bo + b1x1 + b2x2 + b3x3 + ei$$

   Information:
   Y1 = Disbursed Funding
   X1 = Third Party Funds
   X2 = Non Performing Finance
   X3 = Bank Indonesia Sharia Certificate

   According to Choudhury and Harahap (2004, 2007) and Harahap (2010) Circular Causation is recommended in Islamic economic analysis that uses the Tawhidi String Relation (TSR) model and is a differentiator that needs to be worked out comprehensively (kaffah) of other economic analyzes.

   The Circular Causation model in this study is illustrated as follows:

   Circular Causation-1 equation.

   $$\text{DF} = a1 \text{TPF} + b2\text{NPF} + c3 \text{BISC} + e4$$

   $$C_c \text{DF function } [(θ)] = f \{(\text{TPF}) + (\text{NPF}) + (\text{BISC})\} [(θ)] \ldots \ldots \ldots (1)$$
**Circular Causation-2 equation.**

\[ TPF = a_1 DF + b_2 NPF + c_3 BISC + e_4 \]

Cc TPF function \([\theta]\) = f \{(DF) + (NPF) + (BISC)\} \([\theta]\) …… .. (2)

**Circular Causation-3 equation.**

\[ BISC = a_1 DF + b_2 NPF + c_3 TPF + e_4 \]

Cc BISC function \([\theta]\) = f \{(DF) + (NPF) + (TPF)\} \([\theta]\) …… .. (3)

**Circular Causation-4 equation.**

\[ NPF = a_1 DF + b_2 BISC + c_3 TPF + e_4 \]

Function cc NPF \([\theta]\) = f \{(DF) + (BISC) + (TPF)\} \([\theta]\) …… .. (4)

This function is expected to explain the relationships that affect Islamic finance.

4. Results

**Statistic Descriptive and Correlation Matrix**

From the results of the estimation of multiple linear regression obtained the following results:

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>191932.5</td>
<td>174943.8</td>
<td>1.097110</td>
<td>0.2808</td>
</tr>
<tr>
<td>TPF</td>
<td>0.512664</td>
<td>0.094510</td>
<td>5.424457</td>
<td>0.0000</td>
</tr>
<tr>
<td>NPF</td>
<td>1.020172</td>
<td>0.817441</td>
<td>1.248007</td>
<td>0.2211</td>
</tr>
<tr>
<td>BISC</td>
<td>-1.040586</td>
<td>0.274215</td>
<td>-3.794786</td>
<td>0.0006</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.998745</td>
<td>Mean dependent var</td>
<td>175876.2</td>
<td>0.998549</td>
</tr>
<tr>
<td>Log likelihood</td>
<td>-356.4419</td>
<td>F-statistic</td>
<td>5094.631</td>
<td></td>
</tr>
<tr>
<td>Durbin-Watson stat</td>
<td>1.914762</td>
<td>Prob(F-statistic)</td>
<td>0.000000</td>
<td></td>
</tr>
</tbody>
</table>

From table 1 above, the multiple linear regression equation is drawn up as follows:

\[
DF = C (1) + X (1) * TPF + X (2) * NPF - X (3) * BISC
\]

\[
DF = 191932.5 + 0.512664 * TPF + 1.020172 * NPF - 1.040586 * BISC
\]

Based on the multiple linear regression equation above obtained TPF regression coefficient of (+) 0.512664. This coefficient indicates a positive relationship between the TPF variable and the financing channeled (DF). NPF regression coefficient of (+) 1.020172. The coefficient indicates a positive relationship between NPF variables and DF. BISC regression coefficient of (-) 1.040586. The coefficient indicates a negative relationship between BISC variables and DF.

The t-test results show that the TPF has a positive effect on financing channeled by Islamic banking. Based on the t-test obtained TPF regression coefficient of (+) 0.512664 with a significance level of 0.000. Because the level of significance is less than 0.05, partially the independent variable TPF has a positive and significant effect on the dependent variable of financing channeled by Islamic Banking.

From the results of the t-test it is known that the NPF has a positive effect on the financing channeled by Islamic Banking. Based on the t-test obtained by the NPF regression coefficient of (+) 1.020172 with a significance level of 0.2211. Because the significance level is greater than 0.05 and the regression coefficient value is positive, partially the independent variable NPF has a positive and not significant effect on the financing dependent variable distributed by Islamic Banking.

From the results of the above examination it was found that BISC had a negative effect on the financing channeled by Islamic Banking. Based on the t-test the results show that the BISC regression coefficient value is (-) 1.040586 with a significance level of 0.0006. Because the significance level is less than 0.05, the BISC independent variable partially has a negative and significant effect on the financing dependent variable.
distributed by Islamic Banking. Thus the hypothesis is accepted.

Test-F (Concurrent Test) used to determine whether all independent variables simultaneously have a significant effect on the dependent variable. From the results of the above hypothesis test it can be concluded that there is a significant influence of all independent variables (TPF, NPF and BISC) simultaneously on the dependent variable (DF).

From the results of the multiple regression above it is known that the coefficient of Adjusted R-Squared = 0.998549 or 99.8549%. This means that the ability of independent variables (TPF, NPF and BISC) in explaining changes in the dependent variable (DF) is 99.8549%. While the remaining 0.1451% is explained by other factors outside the model such as CAR, inflation and others.

**Correlation Matrix**

In conventional research the Multicollinearity test aims to find out whether the regression model found a correlation between the independent variables. A good regression model should not occur correlation between independent variables (Ghozali, 2009). This is done because in conventional research following the theory of cell mutation (cell separation) from Darwin, each variable is described as a cell developing independently. In the sharia approach known as an Interaction, Integration and Evolution Process (IIE) process. The IIE process does not recognize mutations as stated by Darwin, so cell mutations can be avoided (Budhijana, 2010). In the discussion of this analysis, Correlation Matrix which in conventional research is used to determine multicollinearity, in this study is used to determine the level of correlation between variables. With this Correlation Matrix, it can be seen the extent of the Interaction, Integration and Evolution Process (IIE) process between variables. Based on the Correlation Matrix obtained the following results;

<table>
<thead>
<tr>
<th></th>
<th>DF</th>
<th>TPF</th>
<th>NPF</th>
<th>BISC</th>
</tr>
</thead>
<tbody>
<tr>
<td>DF</td>
<td>1.000000</td>
<td>0.993148</td>
<td>0.918504</td>
<td>0.849802</td>
</tr>
<tr>
<td>TPF</td>
<td>0.993148</td>
<td>1.000000</td>
<td>0.915805</td>
<td>0.875022</td>
</tr>
<tr>
<td>NPF</td>
<td>0.918504</td>
<td>0.915805</td>
<td>1.000000</td>
<td>0.818832</td>
</tr>
<tr>
<td>BISC</td>
<td>0.849802</td>
<td>0.875022</td>
<td>0.818832</td>
<td>1.000000</td>
</tr>
</tbody>
</table>

From the results above it can be seen that there is a correlation between the independent variables TPF and NPF variables = 0.915805, TPF and BISC variables = 0.875022 and NPF and BISC variables = 0.818832 which are quite high, namely above 70%. Conventionally the high value of correlation between independent variables results in difficulty in distinguishing the effect of each independent variable on the dependent variable. But Sharia high correlation value between variables indicates a good learning process.

**Regression Analysis; Circular Causation**

Circular Causation is applied in this study to determine whether each variable, both between independent variables and independent variables influence each other and complement each other. Circular Causation is a causal relationship of interactions between variables leading to integration through evaluation and discussion that results in the evolution of learning. Also called Interactive, Integrative & Evolution (IIE). Or Circular Causation is a process of inherent interaction to solve problems faced dynamically so that new knowledge or provisions are obtained in order to obtain the benefit of the people. In this model each variable is paired with one another. The equation is described as follows:
1. TPF is influenced by DF, NPF and BISC

This stage was carried out with the aim of finding out the estimation results of the Multiple Regression, in the form of the influence of Funding Distributed, Non Performing Finance and Bank Indonesia Sharia Certificates on Third Party Funds.

\[ TPF = f (DF, NPF, BISC) \]

The results obtained from the estimated regression in this stage show the pure transaction value regarding the effect of each DF, NPF, BISC variable on TPF before heading to the integration process. This process is a form of transaction value formation without involving correlation or estimation results using conventional data tools and analysis. In order not to be trapped in conventional research, a circular causation model is applied in this study. This stage of circular causation is carried out to determine and measure the level of influence of each variable that transacts and interacts with each other. Thus a balanced reciprocal relationship will be formed in the process of economic interaction.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>-23285.47</td>
<td>17866.87</td>
<td>-1.303276</td>
<td>0.2018</td>
</tr>
<tr>
<td>DF</td>
<td>1.253707</td>
<td>0.074706</td>
<td>16.7818</td>
<td>0.0000</td>
</tr>
<tr>
<td>NPF</td>
<td>-2.756306</td>
<td>1.011178</td>
<td>-2.725837</td>
<td>0.0103</td>
</tr>
<tr>
<td>BISC</td>
<td>1.573301</td>
<td>0.402005</td>
<td>3.913634</td>
<td>0.0004</td>
</tr>
</tbody>
</table>

From the regression results it was found that based on the t-test showed the constant coefficient was negative and significant. The DF variable is positive and significant. Thus explaining that if the DF variable rises by one billion, it will cause an increase in TPF of 1.25 billion. From the regression results above it was also found that the NPF variable was negative and significant. This explains that if the NPF variable rises by one billion, it will cause a DPD decrease of 2.76 billion. The regression results above show that the BISC variable is positive and significant. This means that if the BISC variable rises by one billion, it will cause an increase in TPF of 1.57 billion.

Based on the F-Test by looking at \( \text{Prob(F-statistic)} \), it is obtained that all variables (DF, NPF and BISC) have a significant effect on TPF. While based on the \( R^2 \) Test, by looking at the Adjusted R-squared it was found that all independent variables were able to explain 0.997942 or 99.7942 and the rest 0.002058 was explained by other factors.

From the above results continued with the analysis of Circular Causation (Shuratic Process). In accordance with Circular Causation theory that the causal relationship between the interaction between variables towards integration through evaluation and discussion will result in the evolution of learning (learning). Based on the Correlation Matrix table (seen in table 3) a Shuratic Process has been formed.

<table>
<thead>
<tr>
<th>Variable</th>
<th>TPF</th>
<th>DF</th>
<th>NPF</th>
<th>BISC</th>
</tr>
</thead>
<tbody>
<tr>
<td>TPF</td>
<td>1.000000</td>
<td>0.993148</td>
<td>0.915805</td>
<td>0.875022</td>
</tr>
<tr>
<td>DF</td>
<td>0.993148</td>
<td>1.000000</td>
<td>0.918504</td>
<td>0.849802</td>
</tr>
<tr>
<td>NPF</td>
<td>0.915805</td>
<td>0.918504</td>
<td>1.000000</td>
<td>0.818832</td>
</tr>
<tr>
<td>BISC</td>
<td>0.875022</td>
<td>0.849802</td>
<td>0.818832</td>
<td>1.000000</td>
</tr>
</tbody>
</table>

Learning The process or relationship between variables is positively interwoven. This can be seen from the correlation value of all variables, all of which are positive. From the Correlation Matrix table above, the correlation between TPF independent variables and DF independent variables is 0.993148, TPF independent variable correlations with NPF is
0.915805, and correlation between TPF independent variables and BISC independent variables is 0.875022. The correlation between DF independent variables with NPF independent variables is 0.918504. The correlation between DF independent variable with BISC independent variable is 0.849802, and BISC variable with NPF is 0.818832. This proves the existence of strong interactions between the independent variables with the independent variables and between the independent variables with other independent variables. The mutual needs in the system reflect between these variables interacting with each other. It also indicates that each variable develops and changes over time. It creates subtle networks that are interrelated, develop strong, grow together and complement each other.

2. NPF is influenced by TPF, DF and BISC

\[ NPF = f(TPF, DF, BISC) \]

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>-141539.1</td>
<td>769568.0</td>
<td>-0.183920</td>
<td>0.8552</td>
</tr>
<tr>
<td>TPF</td>
<td>-0.065774</td>
<td>0.025252</td>
<td>-2.604710</td>
<td>0.0138</td>
</tr>
<tr>
<td>DF</td>
<td>0.028695</td>
<td>0.036609</td>
<td>0.783834</td>
<td>0.4389</td>
</tr>
<tr>
<td>BISC</td>
<td>0.032430</td>
<td>0.073699</td>
<td>0.440034</td>
<td>0.6629</td>
</tr>
</tbody>
</table>

R-squared 0.970140
Adjusted R-squared 0.965475
Log likelihood -296.9375
Durbin-Watson stat 1.952168

From the regression results it was found that based on the t-test showed the constant was positive and not significant as indicated by the Prob t-stat value = 0.8552 > 0.05. TPF variable coefficient is negative and significant with Prob t-stat value = 0.0138 < 0.05. Thus explaining that if the TPF variable increases by one billion, it will cause a decrease in NPF of 0.066 billion. And this could mean that when the TPF experiences an increase, it is likely that the TPF will be transferred to BISC or others. From the regression results above it was also found that the DF variable was positive and not significant with the value of Prob t-stat = 0.4389. This explains that if the DF variable rises by one billion, it will cause an NPF increase of 0.029 billion. The regression results above show that the BISC variable is positive and not significant to the NPF as indicated by the value of Prob t-stat = 0.6629 > 0.05. This means that if the BISC variable rises by one billion, it will cause a NPF decrease of 0.0324 billion. Based on the F-Test by looking at Prob (F-statistic), it is obtained that all variables (TPF, DF and BISC) have a significant effect on NPF. While based on the R² test, by looking at the Adjusted R-squared it was found that all independent variables were able to explain 0.965475 or 96.55% and the rest 0.0355 was explained by other factors.

From the above results continued with Circular Causation analysis. Based on the Correlation Matrix table (can be seen in table 5) a Shuratic Process has been formed.

<p>| NPF is influenced by TPF, DF and BISC |</p>
<table>
<thead>
<tr>
<th>NPF</th>
<th>TPF</th>
<th>DF</th>
<th>BISC</th>
</tr>
</thead>
<tbody>
<tr>
<td>NPF</td>
<td>1.000000</td>
<td>0.915805</td>
<td>0.918504</td>
</tr>
<tr>
<td>TPF</td>
<td>0.915805</td>
<td>1.000000</td>
<td>0.993148</td>
</tr>
<tr>
<td>DF</td>
<td>0.918504</td>
<td>0.993148</td>
<td>1.000000</td>
</tr>
<tr>
<td>BISC</td>
<td>0.818832</td>
<td>0.875022</td>
<td>0.849802</td>
</tr>
</tbody>
</table>

The results show the learning process between variables positively interwoven. The correlation values of both independent and non-independent variables are all positive.
the Correlation Matrix table above, it can be seen that the correlation between NPF independent variable and TPF independent variable is 0.915805, NPF variable with DF is 0.918504 and NPF independent variable with BISC independent variable is 0.818832. The correlation between TPF independent variable and DF independent variable is 0.993148. The correlation between TPF independent variables with BISC independent variables is 0.875022, and DF variables with BISC are 0.849802. This proves the existence of strong interactions between independent variables with independent variables and between independent variables with other independent variables.

3. BISC is influenced by NPF, TPF and DF

\[ \text{BISC} = f (\text{NPF, TPF, DF}) \]

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>3521.627</td>
<td>1166.880</td>
<td>3.017986</td>
<td>0.0050</td>
</tr>
<tr>
<td>NPF</td>
<td>0.231270</td>
<td>0.227984</td>
<td>1.014414</td>
<td>0.3180</td>
</tr>
<tr>
<td>TPF</td>
<td>0.088113</td>
<td>0.030694</td>
<td>2.870652</td>
<td>0.0072</td>
</tr>
<tr>
<td>DF</td>
<td>-0.084404</td>
<td>0.038850</td>
<td>-2.172560</td>
<td>0.0373</td>
</tr>
</tbody>
</table>

R-squared 0.810129
Adjusted R-squared 0.780462
Log likelihood -325.7134
Durbin-Watson stat 1.899198

From the regression results it was found that based on the t-test showed a negative NPF constant value and not significant to BISC as indicated by the Prob t-stat value = 0.3180 > 0.05. Thus explaining that if the NPF variable rises by one billion, it will cause a decrease in BISC of 0.231 billion. From the regression results above it was also found that the TPF variable had a positive and significant effect on BISC with a Prob t-stat value = 0.0072 < 0.05. This explains that if the TPF variable rises by one billion, it will cause an increase in BISC of 0.088 billion. The regression results above show that the DF variable has a negative and significant effect on BISC with a Prob t-stat value = 0.0373. This means that if the DF variable rises by one billion, it will cause a decrease in BISC of 0.084 billion. Based on the F-Test by looking at Prob (F-statistic), it is obtained that all variables (NPF, TPF and DF) have a significant effect on BISC with Prob F-Stat value = 0.0000. While based on the R² test, by looking at the Adjusted R-squared it was found that all independent variables were able to explain 0.780462 or 78.05% and the rest 0.219538 was explained by other factors outside the model.

From the above results continued with observations by Circular Causation. Based on the Correlation Matrix table below, the Shuratic Process between variables has been formed.

<table>
<thead>
<tr>
<th></th>
<th>BISC</th>
<th>NPF</th>
<th>TPF</th>
<th>DF</th>
</tr>
</thead>
<tbody>
<tr>
<td>BISC</td>
<td>1.000000</td>
<td>0.818832</td>
<td>0.875022</td>
<td>0.849802</td>
</tr>
<tr>
<td>NPF</td>
<td>0.818832</td>
<td>1.000000</td>
<td>0.915805</td>
<td>0.918504</td>
</tr>
<tr>
<td>TPF</td>
<td>0.875022</td>
<td>0.915805</td>
<td>1.000000</td>
<td>0.993148</td>
</tr>
<tr>
<td>DF</td>
<td>0.849802</td>
<td>0.918504</td>
<td>0.993148</td>
<td>1.000000</td>
</tr>
</tbody>
</table>

The results indicate a positive and strong learning process between variables. Correlation value of all variables both independent variables and independent variables are all positive signs. From the Correlation Matrix table above, the correlation between BISC independent variable and NPF independent variable is 0.818832, BISC independent variable with TPF is 0.875022 and BISC independent variable with DF independent variable is 0.849802, NPF independent variable is 0.915805. NPF independent variable with DF
In the sharia approach the higher the correlation value indicates the stronger attachment between variables that shows the learning process is going well.

5. Discussion

Analysis of the Polity Market Interaction Matrix

In sharia principles, the parties that establish cooperation in economic transactions are expected to develop together in a balanced manner. Balanced development will occur when each institution interacts properly. Over time, interactions between banks, mudarib customers, shahibul mal customers, customers who have experienced financing failures and Bank Indonesia have been firmly formed.

North (1991) and Steven (1993) in Budhijana (2011) assert that with a science-based basis, the convergence of interactions between institutions in a socioeconomic environment, proceeding towards evolution, presents interactions called polity-market interactions (PMI).

Interaction Process

From the financing carried out by Islamic banking, networks are formed which are interrelated to one another. These networks work together, work together and strengthen each other to form togetherness. Shahibul mal customers need Islamic banks as institutions that provide intermediary services for investment and money deposit services. Islamic banks need mudarib customers as those who need funding to develop businesses and businesses. Sharia Banks also need Bank Indonesia as a regulator and institution that issues policies related to the financial circulation of banks and those who play a role in maintaining financial or monetary stability. Bank Indonesia also needs Bank Sharia as a partner to help maintain

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monetary stability and improve the economy. Customers who experience the risk of financing bottlenecks also need Sharia Bank as a working partner to jointly increase business, seek profits and minimize losses. Each of these institutions, need each other and fully support each other to support in providing financial services. Code of conduct needs each other in the system reflecting between these institutions interacting and pairing with each other.

Table 9. Polity Market Interaction (PMI) for Circular Causation TPF = f (DF, NPF, BISC)

<table>
<thead>
<tr>
<th>MSI Coefficient</th>
<th>DF</th>
<th>NPF</th>
<th>BISC</th>
<th>(i)</th>
</tr>
</thead>
<tbody>
<tr>
<td>DF</td>
<td>1.00</td>
<td>0.94</td>
<td>-0.88</td>
<td>1.05</td>
</tr>
<tr>
<td>NPF</td>
<td>0.92</td>
<td>1.02</td>
<td>-0.85</td>
<td>1.09</td>
</tr>
<tr>
<td>BISC</td>
<td>0.85</td>
<td>0.84</td>
<td>-1.04</td>
<td>0.65</td>
</tr>
</tbody>
</table>

In table 9. The growth of TPF is estimated to have a relationship with the weakening and strengthening of the role of financing (DF), the risk of financing bottlenecks (NPF) and the Bank Indonesia Sharia Certificate (BISC). In this table, each institution has the lowest interconnectedness value (i) 0.65 and the strongest 1.09.

Table 10. Polity Market Interaction (PMI) for Circular Causation NPF = f (TPF, DF, BISC)

<table>
<thead>
<tr>
<th>MSI Coefficient</th>
<th>TPF</th>
<th>DF</th>
<th>BISC</th>
<th>(i)</th>
</tr>
</thead>
<tbody>
<tr>
<td>TPF</td>
<td>0.51</td>
<td>0.99</td>
<td>-0.91</td>
<td>0.59</td>
</tr>
<tr>
<td>DF</td>
<td>0.51</td>
<td>1.00</td>
<td>-0.88</td>
<td>0.62</td>
</tr>
<tr>
<td>BISC</td>
<td>0.45</td>
<td>0.85</td>
<td>-1.04</td>
<td>0.26</td>
</tr>
</tbody>
</table>

In table 10 NPF is estimated to have a relationship with the weakening and strengthening of Third Party Funds (TPF), financing distribution (DF) and Bank Indonesia Sharia Certificates (BISC). In this table, each institution has the lowest interconnectedness value (i) 0.26 and the strongest 0.62.

Table 11. Polity Market Interaction (PMI) for Circular Causation BISC = f (NPF, TPF, DF)

<table>
<thead>
<tr>
<th>MSI Coefficient</th>
<th>NPF</th>
<th>TPF</th>
<th>DF</th>
<th>(i)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NPF</td>
<td>1.02</td>
<td>0.47</td>
<td>0.92</td>
<td>2.41</td>
</tr>
<tr>
<td>TPF</td>
<td>0.93</td>
<td>0.51</td>
<td>0.99</td>
<td>2.44</td>
</tr>
<tr>
<td>DF</td>
<td>0.94</td>
<td>0.51</td>
<td>1.00</td>
<td>2.44</td>
</tr>
</tbody>
</table>

In table 11, BISC is estimated to have a relationship with the weakening and strengthening of financing bottlenecks (NPF), Third Party Funds (TPF) and financing distribution (DF). In this table, each institution has the lowest interconnectedness value (i) 2.41 and the strongest 2.44.

Integration Process
In this process there is a connection with the source of knowledge namely the Koran and the Hadith with the order of the welfare of humanity through the distribution of funding. This system continuously moves recursiveness to spin dynamically to present a process of increasing financial productivity through a learning process (Choudhury, 1999). This means that the distribution of financing by the Sharia-Bank in the function of welfare can be stronger than before. Al-Quran and Hadith (Ω, S) which have been induced into the model, make the learning process work and increase theta (θ).

In the integration process, increasing numbers can be supported by other factors, namely togetherness, mutual need, and mutual help. These are the values of theta. This process in its development will always involve inter-institutional linkages that participate in the round of causality (circular causation). The integration process will produce a complementary effect that is getting stronger. Complementary between institutions will
increasingly grow, increase cooperation (co-existence) and complementarity (interconnectedness).

In the sharia approach the Integration process avoids the theory of mutation as stated by Darwin, so cell mutation can be avoided. There are no sectors and institutions left, no institutions are exhausted or eliminated. They go back and forwards to one another, synergistic, moving and dynamic.

In the process of interaction in this study, BISC was found to be negative. This shows that dislearning process is still happening. Then it needs to be improved through the integration process. In the integration process the increase in numbers can be supported by other factors, namely togetherness and mutual need. This is what in the learning process is called theta values (θ). As long as the integration process is running well, theta (θ) can be continuously improved. The process of cooperation has increased. Poor relations get better. With this process the BISC which was initially negative will turn into positive, so that in the collaborative process no party will be harmed or abandoned.

In this process all parties involved and involved in financing, both Bank Indonesia, Sharia Bank, shahibul mall customers and failed customers pay integrated together. The integration referred to in this study is the process to bring together total theta as a result of the interaction process. From the results of this integration can be seen significant changes in the learning process results.

Through this process there are no benefits that are only enjoyed by the strong and there are no losses experienced by the weak. The strong helps the weak. The weak are helped and protected by the strong.

When each party cooperating only pays attention to itself and ignores the welfare of the others, in this study the dependent variable is only influenced by the independent variable or there is no mutual relationship between each variable, then what happens is that the strong party will increasingly the strong and the weak get weaker. The lucky ones are getting bigger fortunately. The losers will suffer and be left behind.

By using the Tawhidi String Relation theory, in which the process of interaction, integration and evolution occurs, the theory of cell mutation can be shunned. With this process each variable is subject to Circular Causation CC1, CC2, CC3. They have the principle of complying interconnection between them. Through learning processes in the form of interaction, integration and evolution, they are interrelated, develop strong and grow simultaneously. There are no sectors and institutions left, no institutions are exhausted or eliminated. They go back and forwards to one another, synergistic, moving and dynamic (Budhijana, 2010).

Analysis of Knowledge Induced Basis

Islamic banks come with the concept of transforming religious values into economic activity. Religious values adopted from the Koran and hadith are presented practically in the real world in the intermediary function of Islamic Banking universally. Among these values are reflected in honesty, transparency, fairness, free usury, togetherness and help.

One important point emphasized in transforming religious values in economic activity is circular causation. Analysis of circular causation will present improved institutional relations, integration, collaboration, and science, to absorb new innovations to be able to drive the value of the Polity Market Interaction coefficient to have greater value. The importance of science in this process is emphasized in the Qur'an as follows:

"And do not follow what you have no knowledge of. Surely hearing, vision and heart will all be held accountable "(Surah Al-Isra: 36)

According to Budhijana (2009) every individual has imperfections and limitations in understanding science. By going through a process of discussion and discourse which then produces agreement, imperfections, limitations can gradually be overcome.
Referring to the Knowledge Induced Base model in (Budhijana, 2011) it can be illustrated that the process of Interaction, Integration and Evolution in this study can be displayed in the following table:

<table>
<thead>
<tr>
<th>PMI Coefficient</th>
<th>Before</th>
<th>After</th>
<th>IIE-Recursively Process Knowledge Induced Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>TPF</td>
<td>0.59</td>
<td>2.44</td>
<td>Learning Proses</td>
</tr>
<tr>
<td>NPF</td>
<td>1.09</td>
<td>2.41</td>
<td>Learning Proses</td>
</tr>
<tr>
<td>BISC</td>
<td>0.65</td>
<td>0.26</td>
<td>Dislearning Proses</td>
</tr>
</tbody>
</table>

Referring to table 12 above, institutions that have positive PMI (with Knowledge Induced) coefficients that encourage the growth of financing channeled by Islamic Banks are shahibul mall customers in the form of TPF (0.59), customers who experience bottlenecks in financing in the form of NPF (1.09), and the role of banks in helping to maintain monetary stability with Bank Indonesia in the form of BISC (0.65). Through the circular causation model has led to a learning process as happened in the process of interaction, integration and evolution recursively. This Learning Process has succeeded in generating power, presenting information, knowledge and service justice that is expected to improve the progress of Islamic banking.

According to North (1991) and Douglass (1993), in (Budhijana, 2011) solutions without knowledge will always lead to routine problems and even new problems. This process of interaction, integration and evolution can be illustrated in Figure below.

Figure Recursive Process during Interaction, Integration and Evolution Based on Knowledge Induced Codetermination Base

In the framework of development, development and growth of Islamic Bank financing all are integrated through a knowledge-based process (induced knowledge based) which unites the institution's evolution system with all the knowledge parameters as planned targets. By involving the knowledge base of the process of interaction, integration and evolution, the process dynamically increases the distribution of funding over time so that greater distribution of funding reaches all sectors of the economy broadly and evenly.

6. Conclusion, Limitations, and Suggestions

Conclusion

From the results of circular causation analysis, analysis of market interaction polity and knowledge interaction analysis base, it can be concluded:
1) BISC needs to be closely monitored for improvement since BISC increase has a negative effect on DF
2) BISC also has a negative influence on all variables interacting in the model.
3) From the knowledge interaction analysis basis, only the BISC variable undergoes a process discharge process.

**Limitation and suggestions**

After seeing the results of the analysis and discussion of the above research related to the factors that influence the distribution of Islamic Banking financing in Indonesia, also by looking at the market share of Islamic banking in Indonesia which is still quite small, although there is an increase from year to year, it is necessary to conduct policies following policies:

1) Strengthening the intermediary function of Islamic Banking
2) Strengthening and increasing financing in the productive economy sector which includes agriculture, plantation, livestock, fisheries, forestry, trade and small industries.
3) Developing Islamic Banking products.
4) Increasing education, communication and delivery of information to the public through various media, both print, electronic and other media.
5) Improving good governance and risk management.
6) Strengthening the supervision system.

7. **Acknowledgment (If Any)**

Thank you for Mr. Hendri, Takhim, Fadholi for giving us a suggestion in completing this article.

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