The Mediation Role of Intellectual Capital and its Effectiveness of Business Credit Distribution to Increase Farmers' Income

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Abstract: The agricultural sector has an important contribution to the economy as well as to the fulfillment of the basic needs of the community, especially with the increasing number of people which means that the need for food is also increasing. People’s business credit (KUR), is one of the credit/financing given to farmers to meet the needs of working capital and investment. Proper management of KUR requires good intellectual capital and can ultimately help farmers to increase their income. The purpose of the research is: (1) to analyze the effectiveness of people's business credit distribution (KUR) on intellectual capital. (2) to analyze the effectiveness of people's business credit distribution (KUR) on increasing farmers' income through intellectual capital. The results prove that: (1) The effectiveness of people's business credit distribution (KUR) has a positive and significant effect on intellectual capital. (2) The effectiveness of the distribution of people's business loans (KUR) positively and significantly affects the increase in farmers' income through intellectual capital.

Keywords: Business Credit; Distribution; Intellectual Capital; Farmers' Income;

I. INTRODUCTION

The role of MSMEs is recognized to contribute to the economy. MSMEs can help the economic recovery in national and global markets through contributions to Gross Domestic Product (GDP) and employment absorption. The spread of MSMEs sector in Indonesia is mostly in the field of primary business (agriculture, livestock, forestry and fisheries), 28.9% in the field of trade, and 6.4% in the processing industry. The absorption of labor in various sectors of MSMEs in Indonesia during 2015 to 2017 amounted to 123,229,386 people, 112,828,610 people, and 116,673,416 people, respectively. The contribution of MSMEs to GDP during the year amounted to (billion) Rp 6,228,285, Rp 7,009,283, Rp 7,704,635.9, respectively. While the number of MSMEs during the year amounted to 59,262,772 units, 61,651,177 units, and 62,922,617 units (Ministry of Cooperatives and MSMEs, processed by the Central Statistics Agency, 2015 and 2017).

In order to increase the income of MSMEs, it takes attention and direct involvement from the government, such as the ease of obtaining capital. For the capital problem that is the challenge of MSMEs, it is expected that the government will present by providing solutions in the form of distribution of People's Business Credit (KUR). KUR is one of the credit/financing to Small and Medium Micro Enterprises Cooperatives (MSMEs-K) in the form of working capital and investment supported by guarantee facilities for productive businesses (Aidil, 2014). Among the various MSMEs in Indonesia, the study of this study is in South Sulawesi Province. To support working capital needs for MSMEs in South Sulawesi Province, the government has directly provided working capital assistance through the KUR program.

Realization of KUR in South Sulawesi

<table>
<thead>
<tr>
<th>Years</th>
<th>Target (In Trillions)</th>
<th>Realization (In Trillions)</th>
<th>Achievement (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>Rp 4.40</td>
<td>Rp 5.11</td>
<td>116.5</td>
</tr>
<tr>
<td>2017</td>
<td>Rp 5.28</td>
<td>Rp 5.08</td>
<td>96.21</td>
</tr>
<tr>
<td>2018</td>
<td>Rp 5.40</td>
<td>Rp 6.50</td>
<td>120.37</td>
</tr>
<tr>
<td>Nov. 2019</td>
<td>Rp 6,63</td>
<td>Rp 6,73</td>
<td>101,50</td>
</tr>
</tbody>
</table>

Source: OJK Regional VI Sulawesi Maluku and Papua (2020)

This research study focuses on MSMEs in the agricultural sector of South Sulawesi Province. Research objects in Sidenreng Rappang (Sidrap), Pinrang, Gowa, and Bantaeng. The agricultural sector is a sector that has a strategic role in national economic development. Agriculture has an important contribution both to the economy and to the fulfillment of the basic needs of the community, especially with the increasing number of people which means that the
need for food is also increasing. Therefore, the government must be more serious in efforts to solve agricultural problems in order to realize more advanced agricultural development in order to achieve the welfare of the community, especially farmers.

<table>
<thead>
<tr>
<th>District</th>
<th>Number of Farmers</th>
<th>Rice Field Area</th>
<th>Area of Non-Rice Fields (ha)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Irrigation (ha)</td>
<td>Non Irrigation</td>
<td>(ha)</td>
</tr>
<tr>
<td>Pinrang</td>
<td>56,463</td>
<td>7,010.32</td>
<td>524.25</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>4,078.43</td>
</tr>
<tr>
<td>Sidrap</td>
<td>39,220</td>
<td>4,921.96</td>
<td>4,433.36</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2,882.75</td>
</tr>
<tr>
<td>Gowa</td>
<td>85,765</td>
<td>2,026.60</td>
<td>1,275.84</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>4,963.72</td>
</tr>
<tr>
<td>Bantaeng</td>
<td>34,004</td>
<td>1,418.57</td>
<td>155.61</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>4,760.98</td>
</tr>
<tr>
<td>Sul-Cell</td>
<td>960,774</td>
<td>42,635.03</td>
<td>71,219.55</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>132,742.56</td>
</tr>
</tbody>
</table>

*Data Source : BPS Sul-Sel (Sul-Cell In 2018)*

Several studies from previous researchers have proven and the results of the study show in general there is a strong correlation between kuri distribution programs to farmers' income. Research studies from Rusdiah (2008) in the Old Purba Baru Village Silimakuta District Simalungun and Puguh (2015) in Gambiran Subdistrict Banyuwangi has proven that additional working capital through the KUR program has a significant effect on farmers' income, so it is expected to the government to facilitate capital to businesses. The results of the study support the findings of Kurniah et al. (2018) in Baraka Subdistrict Enrekang, Rahmawati S (2019) in Malino City, Ni Luh Made Ayu Danni Lastina and Made Kembar Sri Budhi (2018) in Abiansemal Subdistrict.

Furthermore, in addition to capital which is one of the factors to support the increase in income, it takes intekel capital for efficient and effective management of KUR. Sveiby (in Fitra, 2015) states that the size of money is not everything. MSME actors need to have competence, infrastructure, and the ability to create customer satisfaction through relational capital to support revenue increase (Prasetyanto, 2013).

Several studies from previous researchers have proven and the results of studies show in general there is a strong correlation between KUR distribution programs to the ability to manage KUR efficiently and effectively through intellectual capital owned by farmers. Research from Iram et al. (2012) proves the role of banks in lending has a significant influence on human capital development that has an impact on increasing income, business growth, and innovation.

II. LITERATURE REVIEW

2.1 People's Business Credit (KUR)

KUR is one of the credit / financing to Small and Medium Micro Enterprises Cooperatives (MSMEs-K) in the form of working capital and investment supported by guarantee facilities for productive businesses. KUR is a program launched by the government but the source of funds comes entirely from bank funds (www.smecda.com in

Anggraini & Nasution, 2013). KUR aims to achieve the acceleration of real sector development and empowerment of MSMEs in the framework of poverty alleviation, as well as the expansion of employment opportunities (Bank Indonesia, 2015). So kuri is basically working capital and investment credit provided specifically for productive business units through credit guarantee program.

2.2 Intellectual Capital

Intellectual capital is the amount of what is produced by the three main elements of the organization, namely human capital, structural capital, and customer capital (customer capital) related to knowledge and technology that can provide more value for companies in the form of competitive advantages (Sawarjuono and Kadir, 2003).

a. Human capital is a place where useful knowledge, skills, and competencies are sourced in an organization or company. Human capital will increase if the company is able to use the knowledge possessed by its employees. There are several basic characteristics that can be measured from this capital, namely training programs, experience, skills, mentoring, individual potential and personality (Brinker, 2000 in Sawarjuono and Kadir, 2003).

b. Structural capital is the ability of an organization or company in fulfilling the routine process of the company and its structure to support employees' efforts in producing optimal intellectual performance and overall business performance, for example: the company's operational system, manufacturing process, organizational culture, management philosophy and all forms of intellectual property owned by the company.

c. Customer capital is a harmonious relationship or association network owned by the company with its partners, both from reliable and qualified suppliers, derived from loyal customers and satisfied with the services of the company concerned, derived from the company's relationship with the government and with the surrounding community. Customer capital can arise from various parts outside the corporate environment that can add value to the company.

2.2.1 Farm Income

According to Santoso (2009:340) income is income arising from the activities of companies and people known by different designations such as sales, service income (fee), interest, dividends, royalties, and rent. The income of the farmer in question is the income obtained by farmers in agricultural activities carried out. According to Gustiyana (2004:94) agricultural income can be divided into two definitions, namely: (1) gross income, namely all income earned by farmers in farming for one year that can be taken into account from the sales or exchange of production products assessed in rupiah based on the price per unit weight at the time of collection, and (2) net income, i.e. all income obtained by farmers in one year minus production costs during the production process. Sukartiwi (2005:24) further explained that the gross income of farmers as the total product value of farmers in a certain period of time, both sold and not sold. Meanwhile, according to Hermanto (2010:41) the net income of agricultural businesses is the difference
between the gross income of agricultural businesses and the total expenditure of agricultural businesses. According to Soekartawi (2002:40) there are three kinds of ways of calculating income, namely:

a. Production Approach, which is the calculation of the added value of goods and services produced by an activity / economic sector by reducing the cost between the total gross production value of the sector or subsector. This approach is widely used to estimate the added value of sectors / activities whose production is in the form of physical / goods, such as agriculture, mining, and industry so on.

b. Income approach, which is the added value of each economic activity is estimated by summing up all the repayments received by production factors, namely wages and salaries and business surpluses, depreciation, and indirect net taxes. In the government and business sectors that are not looking for profit, surplus.

c. Expenditure approach, which is to sum the value of the final use of goods and services produced in the country. In terms of usage, the total provision / production olbarang and services is used for household consumption, consumption of private institutions that do not seek profit, government consumption, the formation of fixed capitalbruto (investment), stock changes, net exports, availability of transportation and communication facilities, prices, production facilities, credit facilities, and counseling.

### III. RESEARCH METHODOLOGY

#### 3.1 Research Approach

In order to answer the formulation of problems that can be quantified or measured by numbers, the researchers used a quantitative research approach. Quantitative approach focuses on numerical aspects as the data, both in the collection process and the results of analysis. Scott and Deirdre (2009). The basic considerations of researchers using quantitative research approaches are: (1) the type of data used is a phenomenon described numerically, (2) the method of analysis using descriptive and inferential statistics, (3) the scope of the study using hypotheses, and (4) the magnitude of the sample and the validity of statistics accurately reflect the population.

#### 3.2 Research Location and Time

Research locations and data collection units in Sidenreng Rappang (Sidrap), Pinrang, Gowa and Bantaeng districts.

#### 3.3 Types and Data Sources

The type of data used in this study by its nature is the data expressed in a natural form of numbers (quantitative). These types of data are collected directly from farmers (primary data) and indirectly (secondary data) from the Financial Services Authority, the Provincial Statistics Agency related to the results of agricultural surveys between the 2018 census in South Sulawesi and (secondary data). Primary data collection techniques through methods: (1) interviews, (2) observations, (3) questionnaires.

#### 3.4 Population and Samples

The population in this study is all kur recipient farmers in Sidenreng Rappang (Sidrap), Pinrang, Gowa and Bantaeng districts totaling 215,432 farmers. Minimum sample size of 500 farmers.

#### 3.5 Data Analysis Techniques

Data analysis technique is a way of analyzing research data, including statistical tools relevant for use in research (Eng & Slamet, 2017: 42), namely the test of validity and reliability of instrument, analysis statistic descriptive, and path analysis.

#### 3.6 Operational Definitions and Their Measurements

<table>
<thead>
<tr>
<th>Exogenous Variables</th>
<th>Operational Definitions</th>
<th>Indicator statement</th>
<th>Source, Measurement Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Variable</strong></td>
<td><strong>Indicators</strong></td>
<td><strong>Indicator statement</strong></td>
<td><strong>Source, Measurement Scale</strong></td>
</tr>
<tr>
<td>The effectiveness of KUR Distribution (X) is that the credit given is actually used for productive activities that should be, as stated in the credit proposal.</td>
<td>Accuracy of The Use of Funds (X1) is the funds lent by the bank to the farmers is appropriately used for additional working capital and business development</td>
<td>Increase working capital (X1.1), Increase production capacity (X1.2), Material Purchase (X1.3), Land expansion (X1.4), Marketing expansion (X1.5), Physical facilities improvement (X1.6) Increase rice varitas (X1.7)</td>
<td></td>
</tr>
<tr>
<td>Credit Expense Provision (X3) is burdens imposed on farmers to be paid to banks in accordance with the agreement</td>
<td>Accuracy of Credit Amount (X2) is the amount of credit received as expected or submitted in accordance with the proposal.</td>
<td>Funds as expected (X2.1), Management expenses (X2.2), Realization of competing submissions (X 2.3)</td>
<td></td>
</tr>
<tr>
<td>Accuracy of Credit Procedure (X4) is the process and terms of credit assessment that must be met by farmers to obtain credit approval.</td>
<td>Credit Expense Provision (X3) is burdens imposed on farmers to be paid to banks in accordance with the agreement</td>
<td>Interest percentage (X3.1), Loan term (X3.2), Installment amount (X3.3)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Document requirements (X4.1), Warranty terms (X4.2), Disbursement requirements (X4.3)</td>
<td>Tika (2018); Ordinal.</td>
</tr>
</tbody>
</table>
4.1 Direct and Indirect Influence

<table>
<thead>
<tr>
<th>Path Analysis</th>
<th>Beta Coefficient</th>
<th>Total Influence</th>
<th>Significance</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Direct Influence</td>
<td>Indirect Influence</td>
<td></td>
<td></td>
</tr>
<tr>
<td>X----Y</td>
<td>0.668</td>
<td>0.668</td>
<td>0.000</td>
<td>Positive and Significant</td>
</tr>
<tr>
<td>X----Z</td>
<td>0.008</td>
<td>0.008</td>
<td>0.009</td>
<td>Positive and Significant</td>
</tr>
<tr>
<td>Y----Z</td>
<td>0.016</td>
<td>0.016</td>
<td>0.039</td>
<td>Positive and significant</td>
</tr>
<tr>
<td>X----Y----Z</td>
<td>0.008</td>
<td>0.011</td>
<td>0.009</td>
<td>Positive and Significant</td>
</tr>
</tbody>
</table>

Source: Primary data processed results, (2020).

4.2 Paired Samples T Test

Paired Samples T Test is used to test the average difference between two paired samples.

Ho = There is no difference in the average increase in farmers' income before and after the use of KUR.

Ha = There is an average difference in the increase in farmers' income before and after the use of KUR.

<table>
<thead>
<tr>
<th>Pair</th>
<th>N</th>
<th>CORR</th>
<th>SIG.</th>
</tr>
</thead>
<tbody>
<tr>
<td>INCOME BEFORE KUR &amp; INCOME AFTER KUR</td>
<td>500</td>
<td>.986</td>
<td>.000</td>
</tr>
</tbody>
</table>

Source: Primary data processed results, 2020.

The correlation value is 0.986, meaning there is a very strong relationship between income before and after receiving KUR due to a value approaching 1. While the significance value = 0.000 ≤ 0.05, means there is a significant difference between the increase in revenue before and after receiving KUR.

4.1 Discussion

Effect of The Effectiveness of People's Business Credit (KUR) on Intellectual Capital

Statistical test results show the effectiveness of KUR distribution has a positive and significant effect on intellectual capital. The accuracy of the use of funds, the accuracy of the amount of credit, the accuracy of credit load, and the accuracy of credit procedures are indicators that can increase intellectual capital. That is, the more effective the distribution of credit, the better intellectual capital is needed. The accuracy of the use of funds related to the funds lent by the bank to farmers in order to be appropriately used for additional working capital and business development. KUR obtained from banks can be used for additional capital, increase production capacity, purchase of materials, land expansion, expansion of marketing derah, improvement of physical facilities and increase rice varitas. The accuracy of the credit amount is related to the amount of credit received as expected or submitted in accordance with the proposal. The accuracy of the credit amount is influenced by the expected acquisition of funds, management expenses, and realization of competing submissions.

Furthermore, the provision of credit expenses related to the burden imposed on farmers to be paid to banks in accordance with the agreement. The accuracy of the credit load is influenced by the percentage of interest, the term of the loan, and the amount of installments. The accuracy of credit procedures related to the process and terms of credit assessment that must be met by farmers to obtain credit approval. The accuracy of credit procedures is affected by document requirements, guarantee requirements and disbursement requirements. Farmers who have good intellectual capital can use KUR appropriately, can determine the amount of credit appropriately, can calculate the kredit load appropriately, and have the ability to assess / evaluate all bank requirements well.

The results of this study support the findings of Iram (2012) which shows the role of banks in lending has a significant influence on human capital development that has an impact on increasing profits, business growth, and improving innovation. Similarly, the findings of Dewi (2020) show that human capital has a real effect on the production and income of farming. However, the results of the study are inconsistent with the findings of Hamed et al. (2013) which showed that lending by banks negatively affects the development of human capital. This happens because of the lack of knowledge and skills possessed by farmers.

Effect of The Effectiveness of People's Business Credit (KUR) on Income

Statistical test results show the effectiveness of KUR distribution has a positive and significant effect on revenue. The accuracy of the use of funds, the accuracy of the amount of credit, the accuracy of credit load, and the accuracy of credit procedures are indicators that can increase income, meaning that the more effective the distribution of credit, it is expected that farmers' income will increase. The accuracy of the use of funds related to the funds lent by the bank to farmers in order to be appropriately used for additional working capital and business development. KUR obtained from banks can be used for additional capital, increase production capacity, purchase of materials, land expansion, expansion of marketing, improvement of physical facilities and increase rice varitas. The accuracy of the credit amount is related to the amount of credit received as expected or submitted in accordance with the proposal. The accuracy of the credit amount is influenced by the expected acquisition of funds, management expenses, realization of competing submissions.

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credit procedures related to the process and terms of credit assessment that must be met by farmers to obtain credit approval. The accuracy of credit procedures is affected by document requirements, guarantee requirements and disbursement requirements. The results of this study support the findings of Rusdiah (2008), Kurniah et al.(2018), Rahmawati S (2019), Ni Luh (2018) which showed that bank lending has a positive and significant influence on revenue increase.

The Effect of Intellectual Capital on Income

Statistical test results show intellectual capital has a positive and significant effect on revenue. Human capital, structural capital and customer capital are indicators that can increase income. Human capital is related to the knowledge, skills, and competencies possessed by farmers in order to manage KUR funds effectively which can ultimately be used to increase income. Structural capital related to efforts or activities carried out by farmers consistently in the development of their business, such as training systems, information systems, and work culture. Customer capital is related to the harmonious relationship that farmers have with their partners, both from reliable and qualified suppliers, coming from loyal customers and satisfied with the service of the farmer concerned. The results of this study support the findings of Bambang Widjonarko (2015), Dewi (2020) which shows that human capital has a real effect on the production and income of farming.

Effect of Effectiveness of people's business credit distribution (KUR) on Income Through Intellectual Capital

Statistical test results show intellectual capital can mediate the influence between the effectiveness of KUR distribution has a positive and significant effect on revenue. Human capital, structural capital and customer capital are indicators that can increase the influence between the effectiveness of KUR distribution on income. The results of previous research related to intellectual capital as mediation in increasing the effectiveness of KUR distribution on income, still not found. However, research related to the importance of intellectual capital to increase income with the proper management of KUR funds, has been proven by the findings of Dewi (2020) in Pasir Langu Village, Cisarua District. The results showed the management of bank credit funds can be useful to increase income, when supported by the capabilities of farmers. The results of this study also explain that: (1) Human capital farmers who follow the training are on high criteria, meaning that human capital farmers can be improved through training. Training can improve the competence of farmers and materials trained in general can be applied by farmers, (2) The production and income of farmers who follow the training is greater and significantly different than farmers who do not follow the training, (3) Farmers who follow the training and farmers who do not follow the training, both are eligible to be cultivated, (4) R/C ratio of farmers who follow the training is greater and significantly different than farmers who do not follow the training, (5) Human capital has a real effect on the production and income of farming.

V. CONCLUSION

5.1 Conclusion
1. The effect between the effectiveness of people's business credit distribution (KUR) on intellectual capital is positive and significant. The accuracy of the use of funds, the accuracy of the amount of credit, the determination of credit expenses, and the accuracy of credit procedures are indicators that can affect intellectual capital.
2. Intellectual capital can mediate the influence between the effectiveness of lending to increased income. Human capital, structural capital and customer capital are indicators that can increase the influence between the effectiveness of lending to increase revenue.
3. The increase in farmers’ income can be directly influenced by the effectiveness of lending or through intellectual capital.
4. Increasing farmers’ income is more dominantly influenced through intellectual capital than directly by the effectiveness of lending.
5. There is a significant difference in income increase between farmers who use people's business credit (KUR) compared to farmers who do not use people's business credit (KUR).

5.2 Suggestions
1. The distribution of people's business credit (KUR) related to the accuracy of the use of funds still needs to be better evaluated because it gives meaningful meaning to the increase in farmers' income.
2. Intellectual capital related to customer capital still needs to be increased because it gives meaningful meaning to the increase in farmers’ income.
3. Supervision and monitoring from the banking sector so that the use of KUR credit is on target.
4. Cooperation from the chairman of the farmer group, farmers so that each crop of funds set aside for the payment of obligations and availability of funds for the purchase of seeds and fertilizer.

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