KAJIAN MANAJEMEN MODAL KERJA PADA USAHA KECIL DAN MIKRO PANGAN BERBASIS UBI KAYU DI KABUPATEN SEMARANG

STUDY OF WORKING CAPITAL MANAGEMENT ON SMALL AND MICRO BUSINESSES OF CASSAVA-BASED FOOD IN SEMARANG REGENCY

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Abstract: This research is conducted to know the condition of small and micro business of cassava –based in Semarang regency related to management of working capital. Samples of this research are ten small and micro business of cassava-based food in that area. That data was obtained with questionnaires, which distributed to those
samples. Interview and observation are also used to complete data from questioner. The data are analyzed by descriptive quantitative and qualitative. The result show that they run their business only to get revenue for meeting their basic needs. While, on the working capital management, they focus on finished goods inventory rather than on raw material inventory. The easiness of getting the cassava make them have a few cassava as inventory. They order cassava from nearest supplier for making any kinds of food. Most of working capital is financed by owners equity. Therefore, they do not dependent on creditors. Nevertheless, they have not yet included wages of workers to create net profit. Respectively, inventory conversion period, average collection period, payables deferral period and cash conversion cycle do not influence to return on asset. In the future, they can take loan to finance working capital as long as not more than owner’s equity. They should include wages expense to get profit. More importantly, they must own entrepreneurial spirit in business.

Keywords: SMEs, Working Capital, Cassava

INTRODUCTION

Small and micro businesses in Central Java have grown rapidly in number. They increase by respectively 12.11% in 2013, 10.34% in 2014, 9.29% in 2015 and 6.25% in 2016 (Merdeka, 28 February 2017). Similar to other small and micro businesses, they also encounter problems in capital in particularly working capital.

Working capital is capital needed by a firm for conducting its business. A firm uses working capital to buy commodities and to finance operational expenditures. Having adequate working capital, a firm can compete with others in terms of ability to provide products that are good in quantity and quality. For majority of middle and large businesses, working capital is obtainable and managed more efficiently. However, it does not so for small and micro businesses in rural and urban areas that very oftenly have problems in limited working capital (Fatimah & Darna, 2011) and management of working capital. For the solution, they usually borrow money from the lenders offering quick procedure but high interest rate.

This research reviews how small and micro businesses in Semarang that produce cassava-based food manage their working capital. The reason is that it has not
yet known how the businesses conduct their working capital management. Our preliminary survey showed that many small and micro businesses including those operate in food sector have not been able to manage their finance efficiently in mainly working capital. Ability of small and micro businesses in Semarang to manage the business including finance is important since they have responsibility in contributing to the advancement of economic in the regions.

Small and micro businesses producing cassava-based food in Semarang are now growing fast. Their existence is considerably important in absorbing the workforce and in turn tackling the poverty. Referring to Rusdanti (2010), many of them took cassava as the raw material from the local areas which have abundant agricultural commodity such as cassava to produce food.

Based on this phenomenon, the purposes of this study are (i) to describe how small and micro businesses producing cassava-based food finance their working capital, (ii) to describe the influence of working capital management to profitability of small and micro businesses producing cassava-based food, (iii) to recommend the right working capital management for small and micro businesses producing cassava-based food.

LITERATURE REVIEW

Working Capital and Its Importance

Working Capital is all of current assets owned by a firm (Brigham and Houston, 2016). It is needed to finance daily business operation. Without working capital, a firm cannot conduct the business and thus working capital is highly essential to each firm.

According to Jumingan (2011: 67-68), working capital should be enough to finance operational expenditure for profit of the company. Availability of working capital used immediately for operations depends on the type of current assets such as
cash, securities, account receivable and inventory. Meanwhile, factors establishing working capital are affected by type of the company. Working capital of a service company is relatively less than that of industrial company (Munawir, 2010: 40-41) because service companies usually do not have much investment on cash, account receivable and inventory. It is also because time needed to produce service is not as long as those in industrial sector.

**Working Capital Management**

Working capital management is an activity of planning, carrying out and supervising current assets and current liability. (Syamsuddin, 2011: 210). The right management of current asset and current liability can result in high profit. The effectiveness of working capital is an indicator of how working capital such as cash, account receivable and inventory is used correctly for production process of. A firm which manage working capital effectively will be able to achieve sales and profit target easily.

**Working Capital Management for Small and Micro Business**

Working capital for small and micro business is very important. As long as the working capital for those businesses is sufficient, it will be easy for them to finance the operation of their business. Ineffective management of working capital will cause a business disrupts. This occurs on many small and micro businesses. Most of them do not understand how to manage working capital correctly.

Effective working capital management of small and micro businesses can be seen on their inventory management. The right inventory management in for example raw material inventory and finished good inventory will make process of production to be more fluent. Meanwhile, sufficient amount of working capital will assist small and micro businessmen to finance their day-to-day operations. (Rizal dan Endang, 2015).
Factors Affecting Working Capital

There are several factors affecting working capital. They are: (Munawir, 2010)

1. Type of company.

Working capital required by a service company is less than an industrial company. This happens because a service company does not need investment more on cash, account receivable and inventory. In contrast, an industrial company must invest a lot in current assets and this make the company needs more working capital.

2. The time required to produce or obtain goods to be sold and the price of the union of the goods.

The working capital needed by a company is directly related to the time it takes to acquire goods to be sold and the basic material to be produced until the goods are sold. If the time needed to produce or obtain goods is longer, the working capital required will be greater. In addition, the greater the cost of goods sold per unit, so the greater working capital needed to finance it.

3. Terms of purchase of materials or merchandise

Terms of purchase of goods greatly affect the amount of working capital required by a company. If the terms of credit purchase is favorable, only small cash needs to be invested in the inventory. Conversely, if the terms of credit purchase is unfavorable, then the cash needed to finance the inventory will be greater.

4. Terms of sale.

The more credit sale provided by a company to buyers, then the greater the amount of working capital that must be invested in the components of account receivable.

5. Level of inventory turnover
The higher the level of inventory turnover, the lower the amount of working capital is required. Conversely, the lower the level of inventory turnover, the higher the amount of working capital is required.

**Previous Studies**

Margaretha and Oktaviani (2016) conducted a study on the influence of working capital management to profitability on small and medium businesses in Indonesia. This study used 34 samples operating in several sectors consisting of trade, service and investment sector; consumer goods industry sector; chemical and basic raw industry sector, agriculture sector, mining sector, and various industry sectors. The result showed that working capital management in terms of cash conversion cycle, day in account receivable period, days of goods inventory and days of account payable affected to profitability.

This is sustained with the research of Sadiq (2017) on working capital management at small and medium enterprises in Nigeria. Using 28 small and medium enterprises, he found out that there is influence of account receivable period, inventory turnover in days, account payable period, cash conversion circle and net trade cycle on profitability.

Similarly, the study by Sri and Susanti (2017) that was to examine the effects of working capital to profitability on small and medium businesses in catering business sector in Surakarta, Indonesia also revealed that working capital affected profitability. Likewise, sales also affected profitability.

Zariyawati, et al (2017) found that small companies in Malaysia were able to increase profit by reducing their investment in working capital via shorter account receivable collection period and reducing inventory turnover. In contrast, working capital of large companies did not affect their profits. So, the effect of working capital management on companies will be different for according to company size.
METHODS

This study chose Semarang regency and its surrounding area for the fact that there are many small and micro businesses producing cassava-based food in this area. Moreover, this area has many plants cassava that create abundant supply of cassava.

Because the exact number of small and micro businesses producing cassava-based food in Semarang and its surrounding area is not known, samples of this research were set at 10 using quota sampling (Arikunto, 2010)

This study used primary data and secondary data. The primary data consist of any information relating to working capital management. The data were collected by means of questionnaire and interview. The interview was to gather supplement data for those collected from the questionnaire. The secondary data compose of volume of cassava production for several years. The data were collected from The Office of Agriculture and The Office of Industry and Trade of Semarang Regency. The data from both sources were then analyzed using descriptive qualitative and quantitative analysis.

RESULTS AND DISCUSSION

The analysis starts with description on condition of cassava production in Semarang Regency. For the last five years, from 2012 until 2016, the growth of cassava production fluctuated (see table 1).

<table>
<thead>
<tr>
<th>Year</th>
<th>Harvest Area (Ha)</th>
<th>Production (Ton)</th>
<th>Productivity Ton/Ha</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>2.100</td>
<td>58.635</td>
<td>27.92</td>
</tr>
<tr>
<td>2013</td>
<td>1.955</td>
<td>49.510,63</td>
<td>25.33</td>
</tr>
</tbody>
</table>

Table 1. Harvest Area, Production and Productivity of Cassava in Semarang Regency from 2012-2016
<table>
<thead>
<tr>
<th>Year</th>
<th>Harvest Area (ha)</th>
<th>Production (ton)</th>
<th>Productivity (ton/ha)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>1.812</td>
<td>41.871</td>
<td>23.11</td>
</tr>
<tr>
<td>2015</td>
<td>1.953</td>
<td>43.155,60</td>
<td>22.1</td>
</tr>
<tr>
<td>2016</td>
<td>1.735,60</td>
<td>54.632,03</td>
<td>31.48</td>
</tr>
</tbody>
</table>

Source: Department of Agriculture, Fisheries and Food of Semarang Regency

From the table 1, it is apparent that harvest area for cassava in Semarang regency and its surrounding area tends to fluctuate. The fluctuation of harvest area went along with fluctuation in production. Nevertheless, the decrease of harvest area in 2016 was accompanied by the increase of production. The productivity level shows similar condition. It continuously decreased from 2012 until 2015, but it increased in 2016 (22.10 ton per ha in 2015 to 31.48 ton per ha in 2016). The significant increase of productivity in 2016 indicates that the farmers have possibly utilized the lands for planting cassava optimally. The cassavas were used mostly by small and micro businesses as the materials for producing foods especially traditional foods. Such businesses have now been growing remarkably after many factories were closed down due to the economic crisis in 1997.

**Financial Profile of Small Businesses Producing Cassava-Based Food**

The financial profile of 10 small and micro businesses in this study is presented in table 2. The first profile of asset shows that current assets and fixed assets are limited as they are related only to direct food production. The asset value is relatively low which is below Rp.10,000,000,-

The second financial profile (business turnover) points that the businesses sold all products in cash and very few in credit. Thus, it can be said that cash turnover is very liquid.
Table 2. Financial Profile of the Sample Businesses

<table>
<thead>
<tr>
<th>Financial Profile</th>
<th>Explanation</th>
</tr>
</thead>
</table>
| - Assets          | Current Assets were dominated by processed products  
                  | Fixed Assets were dominated by equipments. |
| - Business Turnover| Most of the products were sold in cash |
| - Cash Flow       | Cash outflow was used to purchase equipments and to finance working capital  
                  | Cash inflow came from sales of processed products |
| - Cost Structure  | Investment costs and working capital costs |
| - Business Income | All incomes came from sales of processed products as the core business |

Source: primary data

The third financial profile (cash flow) reveals that they had only small capital. Therefore, their cash outflow was used only to finance their business such as to purchase equipments and to finance working capital. They did not have capital to purchase machines or commercial vehicles. Their cash inflow was from the sales of products made of cassava. There was no cash inflow from other incomes such as those in large businesses.

The fourth financial profile (cost structure) points out that the cost structure consists of investment costs and working capital costs. Investment costs are all costs spent for renting place, buying production tools and other equipments, while working
capital costs are all operational costs spent for buying raw material, marketing products, and paying electricity bill, etc.

Finally, the fifth financial profile (business income) reveals that all of their business income was from sales of processed food as their core products. They did not have other incomes such as those in large businesses.

**Factors Affecting Working Capital**

Working capital for operation of a business is determined by particular factors. This research found some factors affecting the working capital. Those factors are presented in table 3.

**Table 3. Factors affecting working capital of Small and Micro Businesses Producing Cassava-Based Food**

<table>
<thead>
<tr>
<th>Factor</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Activity of Business</td>
<td>Time for processing products was longer than that of service companies</td>
</tr>
<tr>
<td>Business Opportunity</td>
<td>Working Capital was used to increase the business in order to utilize business opportunity</td>
</tr>
<tr>
<td>Risk Credit</td>
<td>It is inability to return the loan at maturity.</td>
</tr>
<tr>
<td>Spontaneous Financing</td>
<td>Almost all small and micro businesses purchased cassava with spontaneous financing.</td>
</tr>
<tr>
<td>Doing business to fulfill household needs.</td>
<td>The small and micro businesses conducted the business in order to make income for fulfilling the daily needs only.</td>
</tr>
</tbody>
</table>

Source: Primary data
In term of activity of business (the first factor), it shows that processing time was longer compared to that of service firms. The processing time starts from buying raw materials, processing the raw material into the finished products, storing the finished products, selling the finished products, finally receiving payment. Such process caused the amount of working capital needed by them was more than that of those in service sector.

The second factor (business opportunity) points out that the businesses in this research often accepted orders from consumers or retailers at certain times. It was a good opportunity for them to make profit at that time. They however needed more working capital at particular time than the usual time.

Regarding to the third factor (risk credit), there were soft loans offered to small and micro businesses by some banks. Nevertheless, they still thought that they might not be able to pay back the borrowed money from the bank on time. Such thought made them to rarely take loans from banks to develop their business. This certainly made their working capital was relatively stable.

Spontaneous financing (the fourth factor) reveals that almost all the businesses in this research had good relation with the cassava suppliers. Such relationship made them to buy cassava with spontaneous financing in which they did not need to prepare money as much as other firms did to buy cassava. This resulted their working capital tend to be stable.

The fifth factor (doing business to fulfill the household needs) indicates that almost all of them conducted the business not to develop their business, but to fulfill their daily needs. This made them not think how to enlarge working capital for developing their business.
Working Capital Management and Profitability

Data collected indicated that the working capital management at the businesses studied can be seen from inventory conversion period (ICP), average collection period (ACP), payables deferral period (PDP), and cash conversion cycle (CCC). Meanwhile, profitability that shows the company's ability to generate profit was measured by ROA.

Turnover period of each working capital component and profitability.

Turnover period of each working capital component of the businesses in the research is described in Table 4. It reveals that minimum of ICP is 2 days and maximum 3 days with mean 2.3 days. This relates to cassava that is non-durable goods and thus must not be stored more than 3 days to avoid decay and to keep quality of products still good. The ACP shows minimum 1 day and maximum 6 days with mean 2.6 days. This is in accordance with the period of credit sales of the food sector that is in general no more than 1 week. The credit sale is commonly carried out only for retailers, although they buy in small quantities.

Table 4. Period of turnover of each working capital component and profitability

<table>
<thead>
<tr>
<th></th>
<th>ICP</th>
<th>ACP</th>
<th>PDP</th>
<th>CCC</th>
<th>ROA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum</td>
<td>2 days</td>
<td>1 day</td>
<td>0 day</td>
<td>1 day</td>
<td>25 percent</td>
</tr>
<tr>
<td>Maximum</td>
<td>3 days</td>
<td>6 days</td>
<td>6 days</td>
<td>4 days</td>
<td>30 percent</td>
</tr>
<tr>
<td>Mean</td>
<td>2.3 days</td>
<td>2.6 days</td>
<td>2.4 days</td>
<td>2.5 days</td>
<td>28 percent</td>
</tr>
</tbody>
</table>

Source: Small and Micro Business Enterprises at Food Sector Based On Cassava

The minimum of PDP is 0 day and maximum is 6 days with mean is 2.4 days. It is also in accordance with the provisions offered by the cassava suppliers that the credit purchase period is no longer 1 week. While, minimum of CCC is 1 day and maximum is 4 days with mean 2.6 days. The period is considered short because the average of cash conversion cycle is only about 3 days and no longer than 1 week maximum. Whereas, the minimum ROA is 25 per cent and maximum is 30 per cent.
with mean 28 per cent. From the ROA, it can be said that the cassava-based food is profitable because the rate of ROA is higher than the interest rate of 5 per cent. This means that the businesses in this research are able to create profit. However, the survey and observation indicated that they had not calculated the cost of depreciation of the equipments, salary of labor coming from their family, communication and transportation costs. Thus, the probability of the actual ROA level is lower than the survey result.

The Impact of Period of Turnover of Each Working Capital Component on Profitability

The impact of working capital management on probability can be known from the result of regression test. The result of regression test on impact of ICP, AP, PDP and CCC on ROA can be seen in table 5.

Table 5. Regression Test on the Effects of ICP, ACP, PDP and CCC on ROA

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Independent Variable</th>
<th>Coefficient (Beta)</th>
<th>Sig</th>
<th>Conclusion</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROA</td>
<td>ICP</td>
<td>0.004</td>
<td>0.788</td>
<td>Not Significant</td>
<td>ICO, ACP, PDP and CCC have no effect to Profitability</td>
</tr>
<tr>
<td></td>
<td>ACP</td>
<td>-0.002</td>
<td>0.629</td>
<td>Not Significant</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PDP</td>
<td>-0.001</td>
<td>0.813</td>
<td>Not Significant</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CCC</td>
<td>-0.004</td>
<td>0.669</td>
<td>Not Significant</td>
<td></td>
</tr>
</tbody>
</table>

The regression test reveals that ICP, ACP, PDP, and CCC partially do not influence ROA. This happens because the level of significance of working capital component turnover of each period to ROA is greater than 5 per cent. It shows that period of turnover of working capital component does not impact profitability. It means that whatever far turnover period of working capital, it has no contribution for the level of business profits.
Conclusion and Recommendation

It can be concluded that the financial profile of the small and micro businesses in this research is simple, even simpler than those of medium and large companies. Although the amount of the working capital was limited, it was still greater than the working capital of small and micro businesses on services sector. They have to prepare more working capital to catch up with the increasing demand that was a good opportunity. In contrast, spontaneous financing offered by the cassava suppliers encouraged them to set up relatively small working capital.

Nevertheless, their overall working capital tended to be stable because of two factors. One factor is that they did not want to expand their businesses bigger. Another factor is the attitude to avoid loans from banks because of risk that is considerably high.

Even though working capital management does not affect profitability, the small and micro businesses producing cassava-based food should take into account correct net revenue which includes all expenses that cover not only production expense but also wage expense, depreciation expense, transportation expense, and communication expense. On the other hand, the small and micro businesses should also have entrepreneurial spirit to advance their business. As long as their will to advance the business is strong, it will gradually enlarge their business. To make it comes true, they certainly have to add the working capital that can be fulfilled with loans. Currently, there are soft loans offered by some banks for small and micro businesses.

REFERENCES


*The last 4 years the number of MSMEs in Central Java has increased rapidly,* (February 28, 2017), Merdeka.Com.