

The Role of Working Capital and Product Innovation in Productivity

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Abstract—Micro, small and medium enterprises (MSMEs) are businesses that are able to survive in the midst of a crisis, both in developed countries and in developing countries. To maximize the role of MSMEs in maintaining economic stability requires attention and assistance in its development since it is inseparable from the mandate of the law for the welfare of Indonesian people. The craftsmen still used traditional tools in the making process and had relatively very low capital and poor productivity and their innovations that could not yet be touched with modern tools. Data collection technique carried out was literature study and field research. Data from field was collected through the process of observation, interview, and documentation. The result obtained from this study showed that 20% of respondents had working capital of Rp 50,000,000.00, 60% of them had Rp 30,000,000.00 to Rp 40,000,000.00, while the rest, which was 20%, had under Rp 30,000,000.00. The use of very low working capital and poor technology innovation generated very low productivity, which was only 2% of working capital per month and from year to year, the number of craftsmen tended to decrease due to the difficulty of marketing the handicrafts.

Keywords— *working capital; product innovation; productivity; MSMEs*

I. INTRODUCTION

Micro, small and medium enterprises (MSMEs) are businesses that are able to survive in the midst of a crisis, both in developed countries and in developing countries. It is generally accepted the important role played by small and medium-sized firms (SMEs) in the development of the world economy, as sources of innovation and employment, and their dynamic relationship of interdependence with larger firms [1]. To maximize the role of MSMEs in maintaining economic stability requires attention and assistance in its development since it is inseparable from the mandate of the law for the welfare of Indonesian people. It is expected that the establishment of small enterprises in society could create new job opportunities and give impact for income equalization in society.

Previous literature suggests that not all resources are equally important to determine firm success and performance. Findings show that intangible resources are important determinants for firm's success. Such assets that are scarce, specialized and difficult to trade, imitate, or appropriate are viewed as intangible [2]-[4]. Resources can be defined as the productive assets of firms, the means through which activities are accomplished [5]. In the same manner, it also has been defined as stocks of available factors (knowledge, physical assets, human capital, and other tangible and intangible) that are owned or controlled by the firm, which are converted into final products or services efficiently and effectively [6], [7]. Although small and medium enterprises (SMEs) have limited resources, some of them are unique and are well-positioned compared to their competitors to create value products for consumers and also provide the greatest potential for wealth creation and redistribution.

In view of the significant role and potency shown by the existence of this enterprise, the coaching and the development from the government must always be strived so that each type of this enterprise is able to overcome the problem at hand and to evolve towards better, more advanced and more independent enterprise so it has greater role in economy, in which in the instruction of President of Republic of Indonesia No. 6 of 2007 on the acceleration policy of real sector development and the empowerment of micro, small and medium enterprises, it is instructed that the acceleration policy of real sector development and the empowerment of micro, small and medium enterprises is in order to increase the growth of Indonesian economy. And it is guided by programs that include improvement of investment climate, financial sector reform and product innovation.

The role of working capital requires attention in developing an enterprise hence the indicator is that the bigger the working capital used the more developed enterprise being carried out. The importance of managing the working capital needs is to ensure increased value and profitability and this aspect must be part of the enterprise's strategic and operational thinking effectively and efficiently [8]. A good working

capital in which the capital comes from the private sector or is called own capital while the outside capital is called business debt. Most firms have a large amount of cash invested in working capital, as well as substantial amounts of short-term payables, as a source of financing [9]. In terms of the way it is used, business debt could be positive or negative. Business debt is positive when the debt is really used to run a business with careful planning. On the contrary, debt is negative when it is used for consumption or to fulfill the life needs so the debtor would be entangled in debt for the rest of his life. Abbadi and Abbadi [10] put forward that beside total assets, working capital needs is also influenced by operating cash flow (OCF) and cash conversion cycle (CCC). Operating Cash Flow (OCF) is enterprise's cash earned on a regular basis by which positive operating cash flow allows the enterprise to finance working capital needs and enables the enterprise to have a more conservative working capital operation strategy.

Working capital either comes from own capital or debt might directly increase or decrease productivity and it depends on the capability of the owner to manage his working capital. When the working capital needs is poorly managed, the management generated would be inefficient thus reduces the benefit of its short-term investment [11]. There is one way to enhance capital use in maximum productivity i.e. by conducting business innovation to have higher value product that is different from similar businesses. Cooperation with customers not only provides benefits in identifying market opportunities, but also reduces the likelihood of poor design in the early stages of product development. Thus, customer involvement may lead to an advantage in terms of product innovation [12], [13] Collaborating with competitors enables firms to ascertain their competitors' technological levels. Firms which are more knowledgeable about their competitors' technology strategies are better able to differentiate themselves [14], [15]. Innovation means any new idea or notion that has never been existed or been published before. Frequently, an innovation contains new breakthroughs about matters investigated by the innovator. Innovation is usually intentionally made by the innovator through a variety of planned actions or research. Besides working capital and product innovation, there is another thing to consider to increasing productivity i.e. the use of both current assets and fixed assets which are components of working capital.

II. LITERATURE REVIEW

A. The Definition of Capital

Capital is the result of production which is used for further production. Meanwhile, capital is sharing rights owned by a company indicated in capital post (stocks capital), surplus, and retained earnings, or the excess value of assets owned by the company over all of its debts. Based on previous opinions regarding the definition of capital, it could be concluded that capital is long-term financing of a company.

B. Working Capital

Working capital is a part of a firm's capital employed such as fixed assets. Broadly, net working capital is defined as current assets less current liabilities and it measures the

financial health of a company. Working capital can also be defined from the operational perspective as inventories plus accounts receivable less accounts payable. We concentrate on operational working capital in this paper. A large amount of working capital ties up funds and can also indicate problems in the operations of a company. Although discussed in textbooks of finance and management accounting, working capital management has received relatively little attention in the academic research [16], which has traditionally concentrated on long-term capital [17], and asset management has mostly concerned fixed assets [18].

Working capital is capital used to purchase or produce goods and services. Working capital can be taken out every month or based on request [19]. Working capital is the total current assets owned by a company or can also be defined as funds that must be provided to finance daily operating activities. Working capital is company's investment in short-term investment such as cash, securities, account receivables, and stocks [20]. Working capital is the excess of current assets within short term [21].

Ambarwati [22] stated that working capital is capital that should remain in the company so that the company's operations become smoother and the company's ultimate goal to generate profits will be achieved. Kasmir [23] mentioned that working capital is defined as investment in current assets or short-term assets, such as cash, bank, securities, account receivables, stocks, and other current assets. Irawati [24] stated that working capital is company's investment in the form of current assets.

According to Jumingan [25], working capital is mere the amount of funds used in one accounting period intended to yield short-term income, i.e. in the form of cash, inventory of merchandise, account receivables (after deducting the profit margin) and the depreciation of fixed assets. As for current assets like securities and profit in account receivables (profit margin) are classified as potential working capital. Fixed assets like land, buildings, machines, and etc. are classified as non working capital. From above definitions, it can be inferred that working capital is total current assets owned by company and used for company's operation.

C. The Use of Working Capital

Working capital, according to Kasmir [23], is ordinarily used by company for: (1) Expenditures for salaries, wages and other company's operating costs which means company spends a sum of money to pay the salaries, wages and other company's operating costs to support sales; (2) Expenditure to purchase raw materials or merchandise. It means that company spends a sum of money to purchase raw materials used for production process or to purchase merchandise for resale; (3) Covering losses due to securities sale. It means that when company sells securities, but suffered losses. It will reduce working capital and should be covered soon; (4) Funds establishment, which is the separation of current assets for certain purposes in the long run, for example the establishment of pension funds, expansion funds, or bond repayment funds. This fund establishment turns current assets into fixed assets; (5) Purchasing fixed assets (land, buildings, vehicles, and

machines) like the purchase of land, buildings, vehicles, and machines. This kind of purchase causes the reduction of current assets and the emergence of current debt.

D. Product Innovation

Innovation can reduce production costs and improve the quality of firms' goods and services. Numerous empirical studies suggest that innovation enhances firm performance [26]-[28]. focus on product innovation, which is defined as "a good or service that is new or significantly improved. It is now well established from a variety of studies that the ability of firms to introduce product innovation is considered to be a key determinant of organizational performance and sustainable development [29], [30].

Innovation is ideas, practices, or objects considered new by humans or other adoption units. This theory believes that an innovation is diffused throughout the community in a predictable pattern. Some groups of people adopt an innovation as soon as they hear the innovation. While other groups of people take longer time to adopt such innovation then. When an innovation is adopted by a number of people, it is said that the innovation is exploded.

According to Sundbo [31], there are various types of innovation and innovative activity such as product innovation, process innovation, and market innovation. He explains that product innovation refers to the introduction of a new product to the market. Innovation is early step when someone starts to see and observe new innovation from various sources, especially mass media. Early adopters are generally people who diligently read newspapers and watch television, so they can capture new innovations. If an innovation is considered difficult to understand and apply, they would not adopt it quickly, otherwise, if they think it easy, they would adopt it sooner.

E. Productivity

According to Ervianto [32], increased productivity is related to the time required, especially derived from the costs reduction consumed by construction workers. In addition, labor productivity is one measure of the company in achieving its goals. Human resources is the most strategic element in organization thus it has to be recognized and accepted by management. Increased productivity could only be carried out by humans [33]. Labor therefore is an important factor in measuring productivity. This is caused by two things, among others; first, because the cost spent for labor is the biggest for the procurement of products and services; second, because of the input of other factors, such as capital.

III. RESEARCH METHOD

This research was explanatory research which aimed to explain the role of working capital and product innovation in *wayang kulit* productivity in Nagasepaha village. Research approach used is qualitative approach to produce conclusive findings, based on the theory and empirical findings described in the previous chapter.

Data used in this research was collected through several methods, namely: (1) Literature study is data collection method conducted by studying some decisions relevant to the research and aims to obtain supporting data to strengthen arguments. By performing literature study, it is expected to be able to compare theories in literature and practices in field; (2) Observation is a complex process which comprises various biological and psychological processes. In this research, the observation object was administration activity by using information technology applied so far; (3) Interview was conducted to understand the obstacles faced by *wayang kulit* craftsmen in Nagasepaha.

IV. RESULTS AND DISCUSSION

After The result of research conducted on wayang craftsmen in Nagasepaha village showed that the number of wayang enterprises, both wayang kulit and wayang kaca, was 50 enterprises, spread around Nagasepaha village with the number of craftsmen up to 100 persons. Capital used in the making of wayang in Nagasepaha was relatively small, based on the data obtained, with the average capital owned by wayang entrepreneurs less than Rp 50,000,000.00, excluding the house and building used for the business. Data indicated that the capital of Rp 50,000,000.00 consisted of supply of wayang making materials, both wayang kulit and wayang kaca, colors for decorating wayang, tools for carving and coloring, and cow bones (if any) used for wayang kulit grip.

Based on capital working owned, as many as 20% of entrepreneurs had Rp 50,000,000.00, 60% had Rp 30,000,000.00 to Rp 40,000,000.00, while the rest, which was 20%, had under Rp 30,000,000.00. It was evidenced that the working capital of wayang making was very small and there was no any significant change every year.

Seen from its productivity, wayang making had very significant decline because wayang is durable product and not used daily. Data obtained showed that the level of wayang productivity was only 2% per month, which meant within a year 24% out of working capital (cost of goods sold). This was because the making of wayang only relied on orders and only made a small numbers of wayang samples. The productivity of cost of goods sold was relatively very small since for each wayang made, the cost of goods sold was Rp 150,000.00 to Rp 200,000.00 for wayang kulit and Rp 100,000.00 to Rp 250,000.00 for wayang kaca. Whereas for wayang used in performance, it was usually bought in large quantities in one gebog (box), normally sold at prices ranging from Rp 64,000,000.00 to Rp 70,000,000.00 and the payment process could be performed in 3 installments. There was no innovation in the making of wayang product using the latest technology since what was sold from the making of wayang was only art and ought to be hand-made starting from picture design until the product was final. The only innovation adopted was only reducing the size and no coloring was ordinarily applied for key chains.

V. CONCLUSION

Based on the research result and discussion, it could be inferred that working capital and innovation found in wayang

craftsmen was very small and there was no technology innovation used that the productivity was very small, up to 2% from the working capital per month. From year to year, the number of craftsmen tended to decrease due to the difficulty factor of marketing the *wayang kulit* handicraft. Thus it requires a new breakthrough so that wayang enterprises in Nagasepaha village would not undergo bankruptcy in spite of the assistance provided by the government through exhibitions carried out to support the survival of *wayang* craftsmen.

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