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## ANALYSIS OF BUSINESS INNOVATION SYSTEMS AS AN EFFORT FOR DEVELOPMENT OF MICRO SMALL AND MEDIUM ENTERPRISES (MSMEs) POST PANDEMI COVID 19

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### Abstract

MSME and informal sector are business sectors that have proven to play a strategic or important role in overcoming the impact of the crisis from the Covid 19 pandemic. Problems include aspects of capital, business management capabilities, and the quality of managing human resources. The purpose of this paper is to discuss the MSME innovation system in the food sector in Bogor Regency using a dynamic system perspective which consists of five stages of analysis, namely: Problem Recognition; Problem Understanding and system; Qualitative Analysis; Simulation Modeling; and Policy Testing and Design. Based on the results of the study, it is known that functional and institutional factors make MSME in the food sector in Bogor Regency experience obstacles in developing innovation. Functional factors related to financial problems. Financial factors are very important for developing MSME business innovation, especially related to product innovation. These financial limitations make MSMEs in Bogor Regency face two main problems in the financial aspect, namely: long-term capital and finance for investment which is very necessary for long term output growth.

**Keyword: msme's; innovation; covid-19; bogor regency**

### Introduction

Small and informal businesses are a business sector that has proven to have a strategic or important role in overcoming the consequences and impacts of the crisis from the Covid 19 pandemic. On the other hand, the small and informal business sector has also been able to contribute to driving Indonesia's economic growth so far. The strategic position of the small and informal business sector is also because this sector has several advantages compared to large/medium businesses. The advantages of this sector include the ability to absorb labor and use local resources, and the business is relatively flexible. Another proof of the strategic role of the Micro, Small and Medium Enterprises (MSMEs) sector is the ability of this sector to become the main pillar of the Indonesian economy. Based on data from Bank Indonesia, 2015, the number of MSMEs reached 42.39 million units or around 99.85% of the total business units in Indonesia.

Poverty alleviation by developing MSMEs has quite good potential, because it turns out that the MSME sector has a large contribution to employment, which absorbs more than 99.45% of the workforce and contributes to GDP of around 30%. Efforts to advance and develop the MSME sector can absorb more of the existing workforce and of course can improve the welfare of the workers involved in it so as to reduce unemployment. And in the end it can be used for poverty alleviation. The Poverty Alleviation Action Program through MSME empowerment has four main types of activities carried out, namely: Fostering a conducive business climate, development of business support systems, entrepreneurial development and competitive advantage, as well, empowerment of micro-scale businesses. Absorbing approximately 99.45% of employment from a total of around 76.54 million workers. In addition, the MSME sector is also able to provide around 57% of the need for goods and services, contribute 19% to exports and contribute to national economic growth reaching 2-4%. The MSME sector has various strategic roles, but this sector is also faced with various problems. Constraints and problems include aspects of capital, business management capabilities, and the quality of human resources managing them. Constraints and other small and informal business problems are also caused by the difficulty

of access to information and productive resources such as capital and technology, which results in the limited ability of small businesses to develop. Given the strategic role of MSMEs and the limited ability of MSMEs to develop, currently the development of small businesses is one of the strategies adopted by the Government in the context of economic growth. In the context of developing small businesses, information that is complete, easy and quick to access is needed, especially information on the potential of an economic or commodity business sector to be developed in a certain area (District), factors influencing its development, as well as prospects for developing an integrated partnership program for the business sector or commodity. With the issuance of Law no. 23 of 1999, Bank Indonesia (BI) no longer directly provides credit assistance to Small Businesses, but still adopts a policy to assist and encourage the development of small businesses through Technical Assistance and Provision of Information through the Small Business Development Information System (SIPUK), where one a subsystem of SIPUK is the Business Information System (SIB) which provides, among other things, information about potential and identification of investment opportunities. To overcome the problem of limited capital, currently there are also Microfinance Institutions. Micro Finance Institutions are institutions that provide financial services to small and micro entrepreneurs and low-income people who are not served by formal financial institutions and who are market oriented for business purposes. Micro finance is defined as credit services under IDR 50 million. However, the target or microfinance segment is always in contact with people who are relatively poor or have low incomes. The poor are defined as those farmers, small fishermen (PNK) and other rural residents who live below the poverty line, with a maximum income criterion equivalent to 320 kg of rice per capita per year. Poverty alleviation can be implemented through many means and programs, including food, health, housing, education, family planning and of course through loans in the form of micro credit. Loans in the form of micro credit are one of the most effective ways of dealing with poverty. However, it should be noted that, when loans are extended to the very poor, they are unlikely to ever be returned. This is only natural, considering they (the extreme poor) have no income and do not have productive activities. Food programs and job creation are more suitable for these very poor communities. Meanwhile, some other people who are categorized as poor but have economic activities (economically active working poor) or people with low income (lower income), they have income, although not much. For this reason, an appropriate approach, subsidy program or type of micro-loan is needed for each of these groups of poor people. From the description above, the author is interested in trying to reveal the role of Empowerment of Micro, Small and Medium Enterprises (MSMEs) as one of the Poverty Alleviation Efforts in Indonesia.

To obtain answers to the main studies above, a study was carried out on innovation systems with descriptive theorizing. This is to get answers on how the MSME sector innovation system exists, especially for MSMEs engaged in the food industry. This is an important basis for finding sufficient theoretical foundations to find answers to how innovation systems should be able to improve the innovation performance of the MSME sector. Both descriptive and prescriptive approaches in the study of MSME sector innovation systems have a reasonable position in Administrative Sciences with the view that these descriptive and prescriptive epistemological notions are relatively the same as those in Economics, this approach is then used to portray the existence of MSMEs as an important part of economic activity. The perspective used is a dynamic system. There are 5 stages in dynamic system analysis, namely: problem recognition, which is the stage of problem recognition, is carried out in this paper by collecting information related to problematic situations through primary and secondary data. Problem Understanding and System Description, namely the stage where the results of problem recognition at the previous stage really help this paper in understanding the problems and patterns of problem relationships in a dynamic system. Where later this paper will describe a dynamic system model / diagram in the form of a stock flow diagram (SFD). Qualitative Analysis, this qualitative analysis is a qualitative analysis stage of the dynamic system diagram that has been made before. This can be done in two ways, namely by inviting experts to get new ideas or by conducting in-depth discussions with relevant stakeholders. However, in this paper, the process of qualitative analysis is carried out by discussion. Simulation Modelling, where after making a stock flow diagram (SFD) and qualitative analysis, the next step

is to create a dynamic system model by making a causal loop diagram (CLD) which is then simulated. Policy Testing and Design. At this stage the system model that was created in the previous stage, is tested again with several policy scenarios which are alternatives in solving the problem that is the focus of this paper. And in this stage a policy scenario model that is most relevant to the previous policy scenario simulation will be obtained.

Larsen, P and Lewis, A, (2017) stated that one of the most important characteristics of entrepreneurs is their ability to innovate. Without innovation, companies cannot last long. This is due to the changing needs, wants and demands of customers. Customers do not always consume the same product. Customers look for other products from other companies that they feel can satisfy their needs. For this reason, there is a need for continuous innovation if the company goes further and remains standing with its business. Innovation is something related to goods, services or ideas that are perceived as new by someone. Even though this idea has been around for a long time, this can be said to be an innovation for people who have just seen or felt it. Companies can innovate in the following areas: Product innovation (goods, services, ideas and places). Management innovation (work processes, production processes, marketing finance, etc.)

Hills (2008) defines innovation as an idea, practice or object that is considered new by an individual or other user units. Suryana (2013) innovation namely: "as the ability to apply creativity in order to solve problems and opportunities to improve and enrich life". Keeh, et.al (2017) explains that innovation is very important for the following reasons:

Technology changes rapidly as new products, processes and services emerge from competitors, and this drives entrepreneurial businesses to compete and succeed. All one has to do is adjust to new technological innovations.

The effect of environmental changes on product life cycles is getting shorter, which means that old products or services must be replaced with new ones quickly, and this can happen because there is creative thinking that gives rise to innovation.

Today's consumers are smarter and demand fulfillment. Expectations in fulfillment of needs expect more in terms of quality, renewal, and price. Therefore innovative skills are needed to satisfy consumer needs while retaining consumers as customers.

With markets and technologies changing rapidly, good ideas can become easier to copy, and this requires continuously new and better product usage methods, processes, and faster service.

Innovation can lead to faster growth, increase market segmentation, and create a better corporate position.

The definition of Micro, Small and Medium Enterprises is explained in the Law on Micro, Small and Medium Enterprises (MSME) No. 20 of 2008 are as follows:

Micro Enterprises are productive businesses owned by individuals and/or individual business entities that meet the criteria for Micro Enterprises as regulated in this Law.

Small business is a productive economic business that stands alone, which is carried out by individuals or business entities that are not subsidiaries or not branches of companies that are owned, controlled, or become part directly or indirectly of medium or large businesses that fulfill the criteria for Small Enterprises as referred to in this Law.

Medium Enterprises are productive economic enterprises that stand alone, which are carried out by individuals or business entities that are not subsidiaries or branches of companies that are owned, controlled, or become a part either directly or indirectly with Small Businesses or large businesses with total assets net or annual sales proceeds as stipulated in this Law.

## **Research Methods**

Testing in this study uses a dynamic system that uses vensim software seen from Problem Recognition; Problem Understanding and system; Qualitative Analysis; Simulation Modeling; and Policy Testing and Design Problem Recognition. The problem identification stage is carried out through gathering information

related to problematic situations through primary and secondary data. In this context, problem recognition breaks down in the following stages:

Stage 1 Identify unstructured problem situations in the context of the MSME food industry in Bogor Regency in general. Stage 2 Identify a structured situation/problem. Stage 3 Defining the root of the problem situation

#### Qualitative Analysis

This qualitative analysis is a qualitative analysis stage of the dynamic system diagram that has been made before. This can be done in two ways, namely by inviting experts to get new ideas or by conducting in-depth discussions with relevant stakeholders. But in this paper, the process of qualitative analysis is carried out by discussion. Simulation Modelling after the Stock Flow Diagram (SFD) and qualitative analysis have been made, the next step is to create a dynamic system model through the creation of a Causal Loops Diagram (CLD) which is then simulated.

#### Policy Testing and Design

At this stage the system model created in the previous stage is tested again with several policy scenarios which are alternatives in solving the problem that is the focus of this paper. In this stage, a policy scenario model is obtained that is most relevant to the previous policy scenario simulation. Secondary data processing in the previous stage, and FGD.

### Results

Based on the results of observation and review of test results using a dynamic system using vensim software seen from Problem Recognition; Problem Understanding and system; Qualitative Analysis; Simulation Modeling; and Policy Testing and Design Problem Recognition. It is the stage of problem recognition that is carried out in this paper by collecting information related to problematic situations through primary and secondary data. In this context, problem recognition breaks down in the following stages:

Stage 1 Identify an unstructured problem situation.

In the context of the food industry, SMEs in Bogor Regency generally have several problems, namely: SMEs have technological constraints, namely the low uniformity of product quality and sanitation, limited capacity and opportunities to innovate or try new technologies, capital problems, infrastructure problems, transportation problems, distribution problems, quality control problems, standardization problems, economies of scale problems, promotion problems, market access problems, product image problems, product quality problems, raw material availability problems, no branding problems, quality problems, inadequate volume problems, food authorization problems, contaminant limit determination problems, import and export certification complexity problems, inconsistent label standard system problems, production problems, product development problems, quality control problems, accounting problems, machine problems, management organization problems, data processing problems, marketing technical problems.

Stage 2 Identify a structured situation/problem

Marketing difficulties, the results of the study concluded that one of the aspects related to marketing problems commonly faced by MSME entrepreneurs is competition pressures, both in the domestic market from similar products made by big businessmen and imports, as well as in the export market. financial limitations, MSMEs in Bogor Regency face two main problems in the financial aspect, namely: capital (both initial capital and working capital) and long-term finance for investment which is very necessary for long-term output growth. Limited Human Resources (HR), limited human resources is also a serious obstacle for MSMEs in Bogor Regency, especially in aspects of entrepreneurship, management, production techniques, product development, quality control, accounting, machinery, organization, data processing, marketing techniques, and market research

papers. All of these skills are needed to maintain or improve product quality, increase efficiency and productivity in production, expand market share and penetrate new markets. Raw material problems, limited raw materials and other inputs are also often a serious problem for output growth or production continuity for MSMEs in Bogor Regency. Especially during times of crisis, many small and medium enterprises centers experience difficulties in obtaining raw materials or other inputs because the price in rupiah becomes very expensive due to the depreciation of the exchange rate against the US dollar. Technological limitations, in contrast to other regions, MSMEs in Bogor Regency generally still use traditional technology in the form of old machines or manual production equipment. This technological backwardness not only results in low production volume and efficiency in the production process, but also low product quality and the ability of MSMEs in Bogor Regency to be able to compete in the global market. Technological limitations are caused by many factors such as limited investment capital to buy new machines, limited information about technological developments, and limited human resources who can operate new machines.

Stage 3 Defining the root of the problem situation, based on the root of the problem situation above, it can be said that the main problem of developing MSME innovation in the food sector in Bogor Regency is related to the following: organizational aspects, institutional aspects, functional aspects, activity function aspects, dynamic aspects organization, institutions, functions, and activities Problem Understanding and system Description The results of the introduction of problems in the previous stage will greatly assist this paper in understanding the problems and patterns of problem relationships in a dynamic system. Where later this paper will describe a dynamic system model/diagram in the form of a stock flow diagram (SFD).

### **Qualitative Analysis**

Based on the dynamic system analysis that was carried out in the 2nd year, it is known that the scenario model found is a policy scenario that requires absolute government support. The government must provide material, intellectual and institutional capital for MSMEs to be able to compete in the global market. But until now the government's alignment is still considered not optimal. Policy in the banking sector is one evidence of injustice. This policy ignores the condition of the MSME group, most of which fall into the poor and low-knowledge category. Likewise in the classification or grouping of businesses based on the criteria of asset ownership and turnover which gave birth to the terms micro, small and medium enterprises. This grouping has not been fully followed up by providing business opportunities in accordance with the potential and capabilities of the business group. As a result, there is a tendency for these groupings to narrow their space for movement. To move the people's economy, it is time to turn the compass needle towards providing opportunities and creating a conducive business climate for MSMEs. This commitment is not only needed among policy makers, but must be a commitment from all parties, including experts and practitioners. In line with the basic KIB policy contained in the RPJM, for the short and medium term the Bogor Regency Cooperative and MSMEs Service issued various breakthrough programs, which made it possible to accelerate the empowerment of MSMEs. This policy is operationalized through the implementation of various strengthening programs for MSMEs, from various aspects of their business, from the production process to marketing. The short-term goal of these programs is to increase production, which is assumed to increase MSME income. The next increase in income is predicted to increase their welfare, with the final impact of reducing poverty and expanding business, which allows for the opening of new job opportunities. While the long term goal is to encourage MSMEs to be able to compete in the global market. MSME Revitalization and Empowerment is carried out through: Revitalizing the role and strengthening the position of MSMEs in the local economic system and; Revitalization and strengthening of MSMEs is carried out by improving MSME access to capital, technology, information and markets as well as improving the business climate; Optimizing the utilization of development resources and; Develop local resource potential.

For the above purposes, the Regional Government of Bogor Regency must cooperate with related ministries with related agencies and the Provincial Government, have implemented MSME empowerment programs focused on

MSME Institutional Empowerment in the form of programs: Licensing simplification and development of a one-door licensing system, as well as for micro businesses, licensing is sufficient in the form of business registration; Arrangement of Regional Regulations to support MSME empowerment; Structuring and improving regulations relating to MSME development; Development of quality cooperatives; Cooperative revitalization; Increasing MSME Access to Funding Sources; Development of various Credit Schemes for MSMEs; Productive financing program for cooperatives and micro-enterprises; Women's independent business financing program in the context of empowering women, healthy and prosperous families; MSME commodity funding scheme program; Development of Micro Credit Institutions, both banks and non-banks; Empowerment of micro and small businesses through the Land Certification program; Assistance in strengthening selectively in certain business sectors as a stimulant; Empowerment in the field of production through selective business sector assistance as a stimulant; Business development program; Tool strengthening assistance program; Machine and technology reinforcement assistance program; Development of Marketing Network; Promotion of MSME projects; Modernization of cooperative retail business; Development of MSME marketing facilities; Development of Trading Boards and Data Centers; Exhibitions at home and abroad; Empowerment of MSME Resources; Growth of new Entrepreneurs; Increasing the technical and managerial capabilities of MSMEs; Development of Cooperative service quality; Cooperative education and training for productive business groups; Development of education and training infrastructure and facilities; Review of this paper and MSME resource development; Discussion of problems and strategic issues in the MSME empowerment process; Dissemination of the results of studies, papers, development and discussions on the empowerment of Cooperatives and MSMEs, through the publication of scientific books, journals and magazines.

From the explanation above, it is known that functional and institutional factors make SMEs in the food sector in Bogor Regency experience obstacles in developing innovation. Functional factors related to financial problems. Finance is a very important factor for developing MSME business innovation, especially related to product innovation. These financial limitations make MSMEs in Bogor Regency face two main problems in the financial aspect, namely: capital (both initial capital and working capital) and long-term finance for investment which is very necessary for long-term output growth. Especially during times of crisis, many small and medium enterprises centers experience difficulties in obtaining raw materials or other inputs because the price in rupiah becomes very expensive due to the depreciation of the exchange rate against the US dollar. The institutional factor becomes a weakness as well as a solution to existing problems. This sign also indicates that in a cause-and-effect relationship this negative sign indicates a causative factor of the problem which has an impact on other hereditary problems. The results of the study concluded that one of the aspects related to marketing problems commonly faced by MSME entrepreneurs is competition pressures, both in the domestic market from similar products made by large businessmen and imports, as well as in the export market. The organizational aspect is related to the limitations of Human Resources. Limited human resources are also a serious obstacle for MSMEs in Bogor Regency, especially in the aspects of entrepreneurship, management, production techniques, product development, quality control, accounting, machinery, organization, data processing, marketing techniques, and papers. This is the market. All of these skills are needed to maintain or improve product quality, increase efficiency and productivity in production, expand market share and penetrate new markets.

## Conclusions

Based on field data it is known that the Variables and Parameters for Modeling in the results of the analysis of MSME innovation systems based on dynamic systems are:

Aspects of activity function: Marketing difficulties, the results of the study concluded that one of the aspects related to marketing problems commonly faced by MSME entrepreneurs is competition pressures, both in the domestic market from similar products made by large entrepreneurs and imports, as well as in the export market.

Functional aspects: Financial limitations, MSMEs in Bogor Regency face two main problems in the financial aspect, namely: capital (both initial and working capital) and long-term financial investment which is very necessary for long-term output growth.

Organizational Aspects: Limited Human Resources, Limited human resources are also a serious obstacle for MSMEs in Bogor Regency, especially in the aspects of entrepreneurship, management, production techniques, product development, quality control, accounting, machinery, organization, data processing, marketing techniques, and papers. This is the market. All of these skills are needed to maintain or improve product quality, increase efficiency and productivity in production, expand market share and penetrate new markets.

Institutional aspect: Raw material problems, limited raw materials and other inputs are also often a serious problem for output growth or production continuity for MSMEs in Bogor Regency. Especially during times of crisis, many Small and Medium Enterprises centers experienced difficulty obtaining raw materials or other inputs because prices in rupiah became very expensive due to the depreciation of the exchange rate against the US dollar.

Aspects of organizational dynamics, institutions, functions, and activities: Limitations of technology. Unlike other regions, MSMEs in Bogor Regency generally still use traditional technology in the form of old machines or manual production tools. This technological backwardness not only results in low production volume and efficiency in the production process, but also low product quality and the ability of MSMEs in Bogor Regency to be able to compete in the global market. Technological limitations are caused by many factors such as limited investment capital to buy new machines, limited information about technological developments, and limited human resources who can operate new machines.

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