Research Article

Conceptual Model Of Supply Chain Center For Msmes In Indonesia

Setijadi¹, Verani Hartati², Yani Iriani³, Rendiyatna Ferdian⁴

¹Industrial Engineering, Faculty of Engineering - Widyatama University ²Industrial Engineering, Faculty of Engineering - Widyatama University ³Industrial Engineering, Faculty of Engineering - Widyatama University ⁴Industrial Engineering, Faculty of Engineering - Widyatama University setijadi@widyatama.ac.id¹, verani.hartati@widyatama.ac.id²

Article History: Received: 10 January 2021; Revised: 12 February 2021; Accepted: 27 March 2021; Published online: 20 April 2021

Abstract: MSMEs in Indonesia are one of the main drivers of the economy. There are many MSMEs with creative ideas and goods offered to the public but there are yet many weaknesses faced by MSMEs. The weaknesses of MSMEs in Indonesia, among others, are the lack of access to market information. MSMEs are often also constrained by a lack of funds for working capital and investment. The skills of human resources are still low, the technology used shows the same level. Logistics and supply chain issues also alleviate the competitiveness of local products by MSMEs in Indonesia. MSMEs have not been integrated into the supply chain. Obstacles for MSMEs also relate to economic scale. The small scale of production results in a small volume of raw material procurement and product delivery, which induces higher costs and lessens competitiveness. With these conditions, the actors in an MSMEs center need to collaborate. Hence, it is necessary to establish a Supply Chain Center (SCC) in MSME centers or industrial areas by the government and the private sector. Promoting economic scale is carried out in the procurement of raw materials, inventory storage, and delivery of finished products. SCC can also manage shared facilities such as warehousing and transportation fleets. SCC does not only handle goods, but also information, services, and fund which will increase the productivity and competitiveness of MSMEs. The development of the SCC must involve stakeholders, namely the central government, local governments, associations, universities, research and training institutions, as well as MSME activists.

Keywords: Indonesian MSMEs, Supply Chain Center

1. Introduction

Micro, Small, and Medium Enterprises (MSMEs) in Indonesia have become an important part of the economic system in Indonesia. It is since MSMEs are business units that are more numerous than large-scale industrial businesses. MSMEs have the advantage of absorbing more workers and are also able to accelerate the process of equitable development. Therefore, MSMEs are protected by laws and regulations related to operational activities and their development. According to the Central Statistics Agency (*BPS* as *Badan Pusat Statistik* in Indonesia), the number of MSMEs has reached 64 million. This figure reaches 99.9 percent of all businesses operating in Indonesia. MSMEs in Indonesia are one of the main drivers of the economy. As a result, it is not surprising that if the MSME sector is disrupted, the national economy will also be.

There are many MSMEs with creative ideas and goods offered to the public but there are yet many weaknesses faced by MSMEs. The weaknesses of MSMEs in Indonesia, among others, are the lack of access to market information, resulting in low market orientation and weak competitiveness at the global level. MSMEs are often also constrained by a lack of funds for working capital and investment. This is due to limited access to information, services, and financial facilities provided by Microfinance Institutions. Difficulties also lie in the procurement of raw materials, especially those that have to be imported, and raw material prices that are quite expensive since the needs of those of MSMEs are relatively small when compared to large companies that produce mass. The skills of human resources are still low, the technology used shows the same level since many traditional production equipment are acting as the main tool used. Additionally, most MSMEs have not recorded business and financial activities in an orderly manner. Managerial abilities, the lack of skills of operators in organizing, and limited abilities in marketing are fundamental. Unhealthy business competition and economic pressure have resulted in a narrow and limited scope of business.

The problems faced by MSMEs in order to survive and compete cannot be separated from MSMEs' access to sources related to their business ventures. Some of the access that must be owned by MSMEs, namely access to sources of funds, markets, sources of raw materials, technology, and information as well as management, are important for MSMEs. Collaboration between business clusters can increase the competitiveness of MSMEs. Open access to raw material sources and markets is one of the determining factors for product success. The business information and communication center is one of the facilities that can be used to conduct transactions and expand its network. Increased knowledge is a source of innovation for MSMEs to be competitive.

Logistics and supply chain issues also alleviate the competitiveness of local products by MSMEs in Indonesia. MSMEs have not been integrated into the supply chain. The logistical difficulties of MSME players occur at the stages of procurement and storage of raw materials, as well as distribution of finished products. The long supply chains of some commodities must be shortened. In addition, controls are needed to prevent certain actors in the supply chain from taking advantage disproportionately. Supply chain improvement must be end-to-end because competitiveness is determined by the efficiency of all actors in the supply chain.

Obstacles for MSMEs also relate to economic scale. The small scale of production results in a small volume of raw material procurement and product delivery, which induces higher costs and lessens competitiveness. With these conditions, the actors in an MSMEs center need to collaborate. Logistics service providers need to act as consolidators to increase economic scale and streamline the process of handling the logistics of MSMEs. Hence, it is necessary to establish a Supply Chain Center (SCC) in MSME centers or industrial areas by the government and the private sector to elevate the competitiveness of MSMEs. The study aims to propose the conceptual model of SCC for MSMEs in Indonesia.

2. Literature review

Micro, Small, and Medium Enterprises in Indonesia

MSMEs in Indonesia receive full attention from the government, the President assisted by the Ministry of Cooperatives and SMEs formulated policies and coordinating policies in the field of Cooperatives and Small and Medium Enterprises in Indonesia.

The definition of MSME, according to the Law of the Republic of Indonesia Number 20 Article 1 of 2008 on Micro, Small and Medium Enterprises is as follows:

1) A micro-sized enterprise is a productive enterprise owned by an individual and/or an individual business entity that meets the criteria of a micro-enterprise as regulated in the law. The criteria are, namely having a net asset of less than Rp. 50,000,000.00 (fifty million rupiah), excluding land and buildings for business premises; or having annual sales of less than Rp. 300,000,000 (three hundred million rupiah).

2) A small-sized enterprise is a productive economic enterprise that stands alone, which is owned by an individual or a business entity that is not a subsidiary or branch of a company that is owned, controlled, or is a part of either directly or indirectly of a medium or large enterprise which meets the criteria for small business as referred to in this law. The criteria for a small enterprise are having a net asset of more than Rp. 50,000,000.00 (fifty million rupiah) up to a maximum of Rp. 500,000,000.00 (five hundred million rupiah) excluding land and buildings for business premises; or having annual sales of more than Rp. 300,000,000.00 (three hundred million rupiah) up to a maximum of Rp. 2,500,000,000.00 (two billion and five hundred million rupiah).

3) A medium-sized enterprise is a productive economic enterprise that is independent, owned by an individual or a business entity that is not a subsidiary or branch of a company that is owned, controlled, or is a part of either directly or indirectly of a small or large enterprise with total net assets or annual sales as regulated in this law. The criteria for a medium enterprise are having a net asset of more than Rp. 500,000,000.00 (five hundred million rupiah) up to a maximum of Rp. 10,000,000,000.00 (ten billion rupiah) excluding land and buildings for business premises; or having annual sales of more than Rp. 2,500,000,000.00 (two billion five hundred million rupiah) up to a maximum of Rp. 50,000,000,000 (fifty billion rupiah).

4) A large-sized enterprise is a productive economic enterprise owned by a business entity with a net asset or annual sales greater than that of a medium enterprise, which includes national or private enterprises, joint ventures, and foreign businesses that carry out economic activities in Indonesia.

5) The world of business is Micro, Small, Medium, and Large Enterprises that carry out economic activities in Indonesia and reside in Indonesia.

As much as 99.9% of businesses operating in Indonesia are MSMEs. Many manufactured goods are offered to the public but product competitiveness has yet been at its optimum. It is due to several weaknesses encountered by MSMEs. According to Jatmika, R.T.D. (2020), those are:

1) Lack of access to information, especially market information. This becomes an obstacle for MSMEs in marketing their products, which results in low market orientation and weak competitiveness at the global level.

2) Lack of funds for working capital and investment. This is due to limited access to information, services, and financial facilities provided by Microfinance Institutions.

3) Difficulty in marketing (changes and market opportunities) is also caused by the lack of information.

4) Difficulty in the procurement of raw materials, especially those that must be imported.

5) Lack of human resource skills. The technology used is yet advanced proven by the use of traditional production equipment.

6) Difficulty in bookkeeping administration. Most of the MSMEs have not recorded their business and

Research Article

financial activities in an orderly manner.

This is reinforced by Suci, Y.R. (2017) in the research which states that the weaknesses of MSMEs include a lack of capital both in number and source, lack of managerial ability, and operational skills in organizing, as well as limited marketing. Those are fundamental issues that are always encountered by all MSMEs in pioneering business ventures to be able to grow. Unhealthy business competition and economic pressure have resulted in a narrow and limited scope of business.

The problems faced by MSMEs in order to survive and compete cannot be separated from MSMEs' access to sources related to their business ventures. Based on the results of research conducted by Hamidin (2012), several accesses must be owned by MSMEs, namely access to sources of funds, markets, sources of raw materials, technology and information, as well as management which is important for MSMEs. Collaboration between business clusters can increase the competitiveness of MSMEs. Open access to raw material sources and markets is one of the determining factors for product success. The business communication center is one of the facilities that can be used to conduct transactions and expand its network. Advanced knowledge is a source of innovation for MSMEs to be competitive.

Supply Chain Management

Supply Chain Management is a complete cycle chain management starting from raw materials from suppliers to operational activities in the company and continuing to the distribution to consumers. Logistics management becomes a part of supply chain management since it consists of planning, realizing, and controlling the efficiency and effectiveness of the flow and storage of goods and services as well as the related information between points of consumption to meet consumers' needs (Hayati, E.N., 2015). Therefore, the main orientation of supply chain management is to meet consumers' expectations, in that, products with certain specifications can be distributed to consumers with high quality, low costs, and the right time (Wahyuniardi et al., 2016). Sharing information from each node of the MSME business management pipeline starting from the supply of raw materials, production, storage, distribution, and marketing is the main thing in ensuring the implementation of supply chain management (Hall and Saygin, 2012).

3. Research methods

This study uses a descriptive method based on literature studies related to the conditions of Indonesian MSMEs. Several secondary data used are taken from Central Statistics Agency (*BPS*), SCI, and the Ministry of Cooperatives and SMEs.

4. Discussion

The competitiveness of local products from MSMEs in Indonesia is low, seen in the perspective of logistics and supply chain issues, this occurs at the stages of procurement and storage of raw materials, as well as distribution of finished products. The long supply chains of some commodities must be shortened. In addition, controls are needed to prevent certain actors in the supply chain from taking advantage disproportionately. Supply chain improvement must be end-to-end because competitiveness is determined by the efficiency of all actors in the supply chain.

With these conditions, the actors in an MSMEs center need to collaborate. Logistics service providers need to act as consolidators to increase economic scale and streamline the process of handling the logistics of MSMEs. Hence, it is necessary to establish a Supply Chain Center (SCC) in MSME centers or industrial areas by the government and the private sector to elevate the competitiveness of MSMEs.

Promoting economic scale is carried out both in the procurement of raw materials, inventory storage, and delivery of finished products. SCC can also manage shared facilities such as warehousing and transportation fleets. Beyond the logistics center, SCC does not only handle materials/goods, but also information, services, and fund which will increase the productivity and competitiveness of MSMEs. The development of the SCC must involve stakeholders, namely the central government (through relevant ministries/agencies), local governments, associations, universities, research and training institutions, as well as MSME activists. Figure 1 illustrates the conceptual model design of SCC for MSMEs in Indonesia.

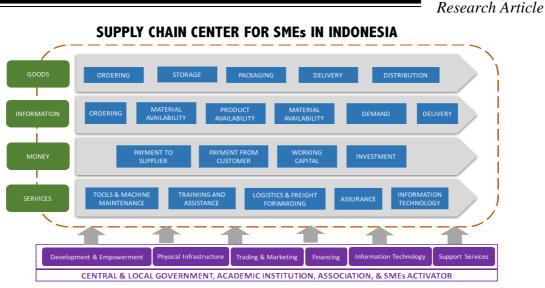


Figure 1. Conceptual Model of Supply Chain Center for SMEs in Indonesia

The proposed SCC design in more detail includes management to the following four points:

1. Materials or goods produced by MSMEs. Activities that are managed start from ordering raw materials and components to suppliers, storing raw materials and finished goods, packaging products, distributing and sending goods to consumers.

2. Information includes conditions for ordering goods to suppliers, availability of materials at suppliers, availability of finished goods produced by MSMEs, how much demand from consumers, as well as information on the distribution and delivery status of goods to consumers.

3. Funds. Activities that are managed are payment systems to suppliers, payment systems for consumers, capital for both investment and working capital.

4. Services include repair of machines and tools, training and mentoring for MSMEs, information technology, insurance, and logistics and freight forwarding, which includes warehouse services, material handling, shipping, and so on.

Those activities mentioned surely need supports from stakeholders, including the central government through its ministries and institutions. The Ministry of Cooperatives and SMEs can support the development and empowerment of MSMEs. Furthermore, the Ministry of Industry, Regional/Local Government, and supports from universities or higher education institutions as well as associations can contribute in assisting the activities of development and empowerment of MSMEs. One of the activities that can continually be conducted by the Ministry of Cooperatives and SMEs is encouraging as well as accelerating MSMEs to go digital. The ministry can collaborate with various leading marketplaces. In the meantime, as much as 13% of 64 million MSMEs can present on the digital platform. The effort by the government can reach its optimum if fully supported by higher education institutions and associations. MSMEs activators will liaise the MSMEs centers with other stakeholders.

From the financial perspective, MSMEs are funded by the government through the National Economic Recovery (*PEN* as *Pemulihan Ekonomi Nasional* in Indonesia) scheme in the forms of relaxation of People's Business Loans (*KUR* as *Kredit Usaha Rakyat* in Indonesia), interest subsidies, working capital, and Productive Presidential Assistance for micro-sized enterprises in the form of grants. Public and private banks, as well as non-banking financing units, are required to put into a contribution to aid the MSMEs financially.

On the other hand, the physical infrastructure of SCC including warehousing, transportation, material handling equipment, is expected to receive government support from several ministries such as the Ministry of Transportation, the Ministry of Energy and Mineral Resources, and the Ministry of Public Works and Public Housing, in collaboration with logistics service providers. Additionally, the information technology infrastructure, the Ministry of Communication and Information Technology, and PT Telkom are expected to actively support this SCC. As a support service for MSMEs, insurance is also needed as one of the roles to empower MSMEs.

5 CONCLUSION

The lack of competitiveness of MSME products, due to economic scale, is proposed to be solved by developing SSCs in centers of MSMEs or industrial areas. With this, MSMEs can collaborate in logistics and supply chain management. SSC needs support from the government and the private sector, considering that MSMEs are one of

Research Article

the main drivers of the economy in Indonesia.

The results of the research can further be developed by identifying in more detail which parties are collaborating in developing SSC and what roles should be played by the government and the private sector in every MSMEs' supply chain management activity.

References

- 1. Hall, D. C., and Saygin, C. Impact of information sharing on supply chain performance. International Journal of Advanced Manufacturing Technology, Vol. 58, 2012.
- 2. Hayati, E. N. Supply Chain Management and Logistic Management. Jurnal Ilmiah Dinamika Teknik, Vol. 8 No. 1, 2015.
- 3. Jatmika, R.T.D. *Masalah yang Dihadapi Usaha Kecil Menengah di Indonesia*. Jurnal Studi Ekonomi Stariah, Vol. 2 No. 6, 2016
- 4. Suci, Y.R. *Perkembangan Usaha Mikro Kecil dan Menengah di Indonesia*. Jurnal Ilmiah Cano Ekonomos, Vol. 6 No. 1, 2017
- 5. Wahyuniardi, R., Afrianti, L. H., Nurjaman, S., & Gusdya, W. Pembangunan Sistem Informasi Berbasis Web Untuk Monitoring Dan Evaluasi Sentra Industri Kecil Dan Menengah Di Jawa Barat. Jurnal Ilmiah Teknik Industri, Vol. 4, No. 1, 2016