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Implementation of Quadruple Helix in Increasing the **Competitiveness of Creative MSMEs in Kediri**

Faza Nurriza Hafidz^{1,*}, Bothy Dewandaru¹, Sudjiono¹

ABSTRACT

The purpose of this study is to determine the role of each Quadruple Helix party in increasing the competitiveness of MSMEs in Rejomulyo Village, Kediri City. This study is a field research with a qualitative method approach. The stages of data collection, data reduction, data presentation, and data verification. Data collection techniques are carried out by direct observation and interviews with each helix actor. The results of the study indicate that from each Quadruple Helix party, only the government and the community are able to maximize their role in developing the competitiveness of MSMEs, academics and the private sector still need to improve cooperation with MSME entrepreneurs in order to maximize the competitiveness of MSMEs.

Keywords: Quadruple Helix, Competitiveness, Creative Industry

1. INTRODUCTION

Innovation is one of the main factors of today's socio-economic dynamics. Among the characteristics of innovation production are interdependence between organizations and interdisciplinarity (Machado et al., 2018). Recently, more complex models have emerged to show the dynamics that exist in certain regions and industries to describe the iterative and non-linear processes that create knowledge from ideas to implemented innovations. (Van Horne & Dutot, 2017). The creative industry sector is an industrial area that is sourced from creativity, innovation, expertise, and community talent to produce welfare and employment that can be utilized by people who have abilities and talents (Subagja, 2017).

The COVID-19 pandemic hit four sectors that were greatly affected, namely the household sector, the financial sector, the corporate sector, and the Micro, Small and Medium Enterprises (MSMEs) sector. Seeing the magnitude of the impact of the losses experienced, the MSME sector is the sector that is most affected. The reason is because MSMEs are vulnerable to low capital reserves and few assets and allow low productivity when compared to large companies (OECD, 2020). The limitations and weaknesses of MSMEs such as resources and capital require collaboration from various parties to overcome challenges in society and MSME innovation (Clarke & Crane, 2018). The emergence of various innovations in various countries is partly due to the triple helix model (Kalenov & Shavina,

Among the most popular conceptual frameworks used in innovation studies, the Triple Helix and Quadruple Helix innovation models are two seemingly competing concepts that have been widely applied in empirical investigations in innovation studies (Cai & Lattu, 2021). As the triple helix model has developed as an innovation development model, there are some experts who are still doubtful about the model. Then the quadruple helix model emerged which added the role of society as the fourth helix (Cai & Etzkowitz, 2020). The Triple Helix represents the basic core model of innovation for the "knowledge economy," while the Quadruple Helix describes the "knowledge society" and "knowledge democracy" (Campbell, 2019).

In this model of knowledge and innovation, each helix has its own function. Universities provide creative researchers, companies provide research and creativity Products and innovation, and the government, contributing to legal and financial support. Also, one spiral can act as another. The interaction and interaction between these three areas are key elements of the innovation process (Laguna & Durán-Romero, 2017). The creative industry is the result of the creativity of each individual who can play an important role in the economy of a country globally (Ahman et al., 2020). The Quadruple Helix is the main pillar that plays a role in encouraging the growth of the creative industry which includes four sectors, namely: government, business, academia and civil society.

The triple helix knowledge system and the Quadruple Helix innovation model can serve as a basis for various specialization strategies because they place a stronger focus on openness and cooperation in innovation, and in

¹Fakultas Ekonomi dan Bisnis Universitas Kadiri, Indonesia

^{*}Corresponding author. Email: bothy@unik-kediri.ac.id

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particular, the dynamics of interrelated coopetition, coevolution, and co-specialization processes. The specialization approach helps regions improve their research and innovation strategies based on a number of key principles including the application of multi-level governance (E. Carayannis & Grigoroudis, 2016). Research on the quadruple helix is more widely applied to large companies with advanced technology, while this research is applied to micro, small and medium enterprises (creative industries) in the fashion sector, with the hope that new findings will contribute to the development of science. The four actors in the quadruple helix must work in an integrated manner, so that they can play their roles optimally, but practices in the four sectors have not been able to collaborate well to support the growth of creativity and innovation of creative industry players in Indonesia (Ahman et al., 2020).

2. THEORITICAL CONCEPT

2.1 Quadruple Helix

The Quadruple Helix Innovation Theory aims to pay attention to the mechanisms of innovation, economic growth, productivity and technology. The quadruple helix innovation process is directed at the production side, the high-tech sector, and integrates innovation, knowledge, final output of goods and services, and the role of civil society directed at the consumption side: technology, knowledge, goods and services, and overall economic output (Afonso et al., 2012). The elements of the quadruple helix are government, research and development facilities, university laboratories, and civil society as the basis of innovation and knowledge (E. G. Carayannis & Campbell, 2010). (Nordberg et al., 2020) explain that they prefer the Quadruple Helix to the Triple Helix as a conceptual framework because the former, which adds civil society as the fourth helix, explains the various formal and informal ways of driving social innovation. They emphasize that the Quadruple Helix model is very useful for analyzing the role of communities in the innovation process. By the same logic, the Triple Helix model has been deemed inadequate to analyze some sectoral collaborations for entrepreneurship in contemporary societies (Mok & Jiang, 2020).

2.2 Innovation and Competitiveness

In the creative industry, innovation performance plays an important role in business sustainability. Today's uncertain global market, every business must focus on providing a quick response to market demand and changing technology (Maleki Far et al., 2014). Innovation proves a complex process, small and medium enterprises face innovation barriers and only succeed in innovating through collaboration with other companies and optimizing the application of their internal knowledge in combining this with the specific competencies of their partners (Ferreira et al., 2015). (Ni & Karl Kresl, 2010) have defined competitiveness as a set of institutions, policies and factors that determine a given level of economic productivity and the resulting capacity to generate wealth and return on investment and thus explain the potential for economic growth. This structure rests on twelve core pillars: institutions; infrastructure; prevailing macroeconomic environment; primary health and education; higher education and training; efficiency of goods markets; level of labor market efficiency; level of financial market sophistication; level of technology; market scale; level of business sophistication; and innovation.

3. RESEARCH METHOD

This research is a field research with a qualitative method approach. This means that the research is conducted by collecting, compiling and describing actual data and information by conducting direct observations and interviews with each party of the helix actors (Government, Academics, Businessmen and the community). This study uses a free interview technique, using basic questions that have been prepared by the researcher, and the researcher will ask more in-depth questions. In this study, because the population of industrial actors and also the community (community as consumers) is unknown, the researcher uses the Snowball Sampling Technique related to respondents in the city of Kediri. The informants in this study were the head of the UMKM division at the Cooperatives, UMKM, and Manpower Office of Kediri City, several UMKM owners in Rejomulyo Village, Kediri City, namely: Saiful Anwar, Ridwan Indrajid, Lilis Winarsih. The three creative UMKM owners in the field of crafts and fashion, where creative UMKM in the field of crafts and fashion become UMKM for economic development in the Sumber Jiput area.

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4. RESULT AND DISCUSSION

4.1 Analysis Result

4.1.1 Role of Governement

In the quadruple helix model, the government is both a regulator and a regulator responsible for formulating business development. Another government task is to work with stakeholders to help develop small and medium enterprises (SMEs). In addition to establishing rules and overseeing corporate development across all industries, the government also serves as a regulator and controller. Planning, execution, control, monitoring, promotion, licensing, financial distribution, knowledge and development, legislation, public innovation policy, assisting innovation networks, and overseeing astute commercial alliances are some of these tasks in the creative sector. Coordinating contributions to the growth of management initiatives in the creative industry is another function of the government (Russell & Smorodinskaya, 2018).

The Head of the Kediri City MSME Division said that:

"The Kediri City Government provides capital assistance to MSMEs, with the aim of being a stimulus for the development of MSMEs in Kediri City. The Kediri City Government also provides MSME legality assistance for MSMEs who request capital assistance but do not yet have a Business Identification Number (NIB)".

The Kediri City Government issued a Mayoral Regulation concerning Amendments to Mayoral Regulation Number 45 of 2022 concerning Technical Instructions for the Provision of Business Capital Assistance Sourced from Tobacco Excise Revenue Sharing Funds, one of the targets for recipients of business capital assistance is entrepreneurs in the industrial and trade sectors, where one of the requirements for acceptance is having a NIB, photos of products and businesses, and also a budget plan (Pemerintah Kota Kediri, 2023).

According to Lilis, one of the recipients of capital assistance, said:

"The Kediri City Government and the sub-districts provide training to several MSME owners. The training provided by the government is batik training, packaging training, making NIB and bridal makeup"

A collaborative effort among creative industry stakeholders, the government, and the community can foster a supportive environment for Indonesia's creative economy. Definite policies and guidelines in every subsection of the creative industry can safeguard intellectual property rights, prevent piracy incidents, and support the survival and growth of the creative industry. Establishing a creative economy necessitates involvement from multiple parties. Both the government and the community must act as participants and consumers in the creative industry. The government acts as a regulator and provider of infrastructure, whereas the community aids it by fostering innovation and contributing ideas for the future growth of the creative industry. By actively engaging with both the government and the community, Indonesia's creative industry has the potential to evolve into a significant export source and generate new income streams for both the community and the nation.

4.1.2 Role of academics

Through academics, it is expected that there will be changes in mindset, knowledge, technology and innovation without leaving out elements of local wisdom. Through various studies and research, it is expected that the role of academics will bring out creativity in products, services and managerial (Sopacua & Primandaru, 2020).

From the results of interviews with Saiful Anwar and several MSME owners in Rejomulyo Village, it was said:

"There are no academics who have directly assisted in the development of MSMEs in Rejomulyo Village, only a few student activities in the Real Work Lecture (KKN) which are often carried out in Rejomulyo Village. But to help the development of MSMEs, there is still nothing".

Academics in the Quadruple Helix model function as designers, initiators of ideas, and new innovations that will be implemented by other stakeholders. Such as implementing business process standardization and product certification and human resource capabilities. Academics here function as a source of knowledge with the latest concepts and theories that are relevant to MSME actors in developing their businesses to achieve sustainable competitive advantage. So the role of academics here is to share information with MSME actors. The development of MSMEs in Rejomulyo Village has been recognized by the village government and the community for their cooperation, the role of academics in the development of MSMEs has not been maximized

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4.1.3 Role of business sector

The private sector can be defined as an entity or party that carries out business activities with the aim of generating profit and maintaining sustainable growth. The role of the private sector is as a partner in providing infrastructure and technology capital. The transition to the digital era supports creative industry managers in developing potential more effectively, efficiently, and productively.

The results of the interview with Ridwan, the owner of a craft UMKM, said that:

"Never received training, mentoring from the Private UMKM. But there are UMKM entrepreneurs who have borrowed capital loans from the "Kurnia" cooperative and there are also those who have partnered with Bank Mandiri."

The Kediri City Government in driving the wheels of the economy, is always active in establishing synergies with various parties, one of which is banking. Such as encouraging the growth and development of MSMEs. The presence of this banking is a support system for MSMEs. Not only capital, but also for coaching and mentoring so that MSMEs can move up a class. The role of the private sector or business sector in Rejomulyo Village is indeed not yet massive, there has been no cooperation between MSME entrepreneurs and the private sector. Although there have been MSME entrepreneurs who have become partners with banks, this cooperation is currently no longer ongoing.

4.1.4 Role of Society

The role of society/community in creating a solid network of cooperation among members can bridge and facilitate the relationship between business actors and the government. Society plays an important role in collaboration where society becomes a source of innovation and knowledge arising from the creative process of policy users (society) by strengthening existing community group networks (Imron, 2020).

The community serves as a place to develop creative industries, namely the distribution of products produced by creative industry players, as well as cultivating the use of products from their creations and becoming potential consumers. That way, the community can feel proud of the achievements of local products. The community is a crucial element in the quadruple helix, functioning as a link between media, culture, and consumers.

The results of interviews with business owners, stated that:

"The community in Rejomulyo Village and its surroundings are very supportive of MSMEs, the community on various occasions always buys MSME products especially when there is a bazaar at a routine village event. The MSME group also provides opportunities for several entrepreneurs to participate in exhibitions outside the village such as providing stands at Kediri City government events and also during the Car Free Day event".

The existence of the Tourism Awareness Group (POKDARWIS) in the Sumber Jiput tourist area provides an opportunity for MSMEs to be competitive. The contribution of the surrounding community to buy MSME products makes entrepreneurs always motivated to be able to continue their businesses. The village government and MSME groups provide opportunities for the development of MSMEs through bazaar activities and MSME exhibitions at several events.

4.2 Discussion

Implementation of the Quadruple Helix Model in the Competitiveness of MSMEs in Rejomulyo Village

4.2.1 Government

The Kediri City Government and village government act as the main actors who have broad authority in managing and developing various village potentials. With a strategic position, the village government is responsible for formulating and compiling programs or activities that reflect the characteristics of the village and the needs of the community, so that they can encourage sustainable village development and improve the welfare of the local community.

The Kediri City Government and Rejomulyo Village Government have the following roles:

1) Formulation and implementation of policies

The Kediri City Government's policy in providing capital assistance for entrepreneurs in the industrial and trade sectors provides opportunities for MSME entrepreneurs to improve their businesses

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2) Providing training

The Kediri City Government provides opportunities for several MSMEs to participate in training conducted by the Cooperatives, MSMEs and Manpower Office. The various trainings attended were batik training, making packaging, making NIBs, and bridal makeup

3) Making business permits

The Kediri City Government also provides convenience for MSME entrepreneurs in managing business permits such as NIBs and halal certificates

4) Promotion opportunities

Routine activities held by the village government provide opportunities for MSME entrepreneurs to promote their products to the public.

4.2.2 Academics

The role of academics for the competitiveness of MSMEs in Rejomulyo Village is indeed not optimal, because there has been no maximum involvement in participating in academics to increase the competitiveness of MSMEs. As academics, the roles that can be carried out are:

1) Knowledge providers

The role of academics is very crucial in applying and disseminating knowledge in various fields, including research and science

2) Training and mentoring

Academics also play a role in providing training and mentoring for the community. In Rejomulyo Village, the role of academics in mentoring is only through Real Work Lecture activities for students from various universities.

4.2.3 Business Sector

Based on the indicators in the Quadruple Helix theory, it is explained that the role of industry/business is as a partner in providing infrastructure and capital. In developing the competitiveness of MSMEs in Rejomulyo Village, the private sector or industrial sector that has participated in developing it is cooperatives and banking. Cooperatives are a source of capital for entrepreneurs, while banking is a partner for one of the entrepreneurs.

4.2.4 Society

Community involvement is considered as an opportunity for the community to be actively involved in creative industry activities. Therefore, the community must be given the opportunity to actively manage available resources, utilize their abilities, and become subjects in the development of the creative industry. And can actively contribute to the decision-making process and control of activities that affect the local creative industry.

The community acts as a consumer of MSME products and participates in promoting MSME products through word of mouth. The opportunity to promote MSME products in various bazaar events is also a form of cooperation between the community and MSME entrepreneurs.

5. CONCLUSIONS

Based on the results of research on the role of Quadruple Helix in increasing the competitiveness of MSMEs in Rejomulyo Village, Kediri City, there are several parties that have not maximized their role in participating in developing the competitiveness of MSMEs. The role of government and society is more dominant in developing the competitiveness of MSMEs, while academics and the private sector have not played a maximum role.

With the support of academics, business sector, government, and society, the Quadruple Helix approach can generate new creativity, ideas, skills, and knowledge for creative industry players. The elements in the Quadruple Helix are needed to further develop the creativity of creative industry players, so that they can improve innovation performance and competitiveness sustainably.

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