

# Pentahelix Strategy in Improving the Performance of MSMEs in Malang City (Study on Food and Beverage Sector)

Shelativa Tribuana Widuroykti<sup>1,a)</sup>, Ratna Nikin Hardati<sup>2,b),c)</sup>, Khoiriyah Trianti<sup>3)</sup>

<sup>1,2,3</sup> *Business of Administration, University of Islam Malang, Malang City, Indonesia*

<sup>a)</sup>Corresponding author: shelativatwy@gmail.com

<sup>b)</sup>ratnanikin.hardati@unisma.ac.id

<sup>c)</sup>[khoiriyah@unisma.ac.id](mailto:khoiriyah@unisma.ac.id)

**Abstract.** MSMEs in Malang City have an important contribution to the local economy, especially in the food and beverage sector which is currently growing rapidly. This study aims to determine the performance improvement of food and beverage MSMEs in Malang City through a pentahelix collaboration model involving academics, communities, government, business people, and social media. This type of research is a mixed method with a sequential explanatory design. The research population was 5,365 food and beverage MSMEs in Malang City with a sample of 100 respondents selected by random sampling. Quantitative data was collected through questionnaires, while qualitative data was collected through in-depth interviews with several resource persons. The research was conducted for three months in Malang City. The results showed that academics, communities, business people, and social media have a significant effect on the performance of MSMEs in Malang City, while the role of government is not significant, but this is reinforced by the results of interviews with resource persons. The pentahelix collaboration strengthens the capabilities of MSMEs through training, mentoring, and promotion, assisting MSMEs in facing market challenges and improving the performance of MSMEs in Malang City. This collaboration is expected to strengthen the MSME sector as the backbone of the local economy, increase employment and unemployment.

**Keywords:** MSMEs, Pentahelix Model, Collaboration, MSME Performance

## INTRODUCTION

Micro, Small, and Medium Enterprises (MSMEs) are productive businesses that have a very important contribution to the national economy, starting from reducing unemployment in Indonesia by providing jobs for the workforce in Indonesia. Kadin Indonesia (2024) states that currently the number of MSMEs reaches 99% of all business units. In 2023, MSME business actors reached approximately 66 million with the contribution of MSMEs to the Indonesian economy reaching 61% of Indonesia's gross domestic product (GDP), equivalent to Rp9,580 trillion. Now MSMEs have absorbed around 117 million workers (97%) of the total workforce in Indonesia. The number of business actors is not small, of course, there will be more competitors, so innovation and creativity from business actors are the main keys to staying competitive and attracting consumer interest. MSME players need to continue to adapt to changing market trends and strengthen marketing strategies in order to maintain excellence and quality amid increasingly fierce market competition, therefore it is necessary to have stakeholders who have an important role to support the sustainability of MSMEs through improving MSME performance.

The empowerment of the micro, small and medium enterprise (MSME) sector is very important and strategic to prepare the Indonesian economy in the future, especially in the context of the national economy. In general, the goal of this empowerment is the realization of micro, small and medium enterprises (MSMEs) that are resilient and independent and have high competitiveness. MSME actors also aim to play a leading role in the production and distribution of basic needs, raw materials, and in capital to face competition. In the perspective of its development, micro, small, and medium enterprises (MSMEs) are businesses that have the largest number compared to other businesses in the large business category (UB).

Improving the performance of MSMEs is one of the priorities in development national economy. This is because these businesses are the backbone of the people's economy aimed at reducing the problem of inequality between groups, income between business actors, and employment (Hoiron, 2017). In an effort to improve the performance of MSMEs, effective collaboration is needed so that MSME actors can be more competitive and develop sustainably. One collaboration that can

be used in improving the performance of MSMEs is by using the Pentahelix Model collaboration. Pentahelix collaboration can be carried out where elements of government, academics, business actors, society or community, and the media collaborate in developing knowledge innovation, expanding networks, and providing resources and assistance needed by MSME actors regarding their business which is transformed into products and or services that have economic value (Tanzil et al., 2022).

Ishak and Sholehah (2021) state that the pentahelix model has great potential to support the revival of MSMEs. This is due to the ability of MSMEs to develop optimally when involving contributions from other parties. Hafidz et al. (2023) stated that the Pentahelix model is a collaborative approach used in MSME recovery programs, which involves five main stakeholders; academics, communities, government, business people, and social media. As a socio-economic development model, Pentahelix relies on synergy and close cooperation between parties to achieve mutual progress. The success of this model is largely determined by the strong commitment, collaboration and responsibility among the five stakeholders.

Beatrice and Hertati (2023) state that MSME development has an important role in economic recovery and increasing regional income. One effective way to achieve this is by synergizing all relevant parties in a model known as the pentahelix model. Collaboration between the actors involved in this model is considered to have a significant role in creating more competitive MSMEs and opening up opportunities effort. Trianti et al. (2024) stated that the progress of MSMEs currently requires a strategic approach through a pentahelix model that has an active role from various stakeholders. This collaboration is very important to encourage the progress of MSMEs, in its development cooperation between various other parties is very important. The synergy of this pentahelix model has an important function to prevent policy and program conflicts between stakeholders, especially in post-pandemic economic recovery efforts.

This research provides an explanation of the strategy in implementing the pentahelix model, especially in the food and beverage MSME sector in Malang City. This model involves five stakeholders (academics, community, government, business people, and social media). The approach serves to fill the gap in collaboration between stakeholders in the pentahelix model, which is still considered weak and unstructured, thus often affecting the performance of MSMEs in facing market competition.

This research has significant benefits for MSMEs to have high competitiveness with the support of various parties involved in the pentahelix model. Therefore, the purpose of this study is to analyze the effectiveness of the pentahelix model in improving the performance of MSMEs in Malang City, especially in the food and beverage sector, in order to create a business environment that supports local economic growth and increase the contribution of MSMEs to the economy of Malang City.

## METHODS

This type of research uses *mixed methods* or mixed methods. The definition of *mixed methods* according to Jhon W. Creswell (2015) states that a mixed approach can be interpreted as a research method based on social research, behavior and health sciences. Where researchers collect quantitative (*closed-ended*) and qualitative (*open-ended*) data by integrating the two which will then make new interpretations based on the combined strengths of the two data. This combination results in a better understanding of the research problem when compared to each data set alone.

In this study using a Sequential Explanatory design where the first stage in this study is to use quantitative methods to collect and analyze data, namely, improving the performance of Malang City MSMEs through the pentahelix strategy. Then in the second stage collect and analyze qualitative data to explain and strengthen the data obtained from the results of quantitative research in depth. The sampling technique using *random sampling*. The population taken from this study are MSME players engaged in the food and beverage industry in Malang city who are taken randomly, this study includes data analysis through Structural Equation Modeling (SEM). The hypotheses that have been formulated in this study were tested using Partial Least Squares (PLS) version 4.0 as a data analysis technique tool that compares several dependent variables and independent variables.

## HYPOTHESIS DEVELOPMENT

### Academics

Academia includes universities and research institutions that function as knowledge sources that provide concepts from the latest theories relevant to MSMEs. This role assists MSME players in achieving sustainable competitive advantage by effectively sharing information with stakeholders. In the development of MSMEs, academia is crucial in shaping a knowledge-based society, which is needed to support economic growth. In addition, academics also prepare students to think critically, develop talents, and produce innovative knowledge and skills to support an entrepreneurial spirit that can later be applied in the surrounding environment (Ishak and Sholehah, 2021). Academics play a role as designers, who act as liaisons in exchanging information and new business concepts with businesses to improve the performance of MSMEs (Hafidz et al., 2023).

H1: Academics have a significant influence on improving the performance of food and beverage MSMEs in Malang City.

### Community

Communities provide a space for business people to share information and exchange ideas for the betterment of their respective businesses. This step also has a major impact on the development of the company. For example, community support can be a means for its members to share experiences and gain access to information about various business development innovations (Hafidz et al., 2023). Besides having a very important role in assisting the development of MSME products, the community also plays a role in expanding market reach and marketing products produced by MSME players can be sold to a wider market (Beatrice and Hertati, 2023).

H2: Community has a significant influence on improving the performance of food and beverage MSMEs in Malang City.

### Government

The government has a very important role to provide encouragement and support to MSME actors, by providing applicable regulations and policies. The government is expected to create a conducive environment for business development by providing regulations that support and motivate these businesses to continue to grow (Hafidz et al., 2023). The government provides support in terms of improving the performance of MSMEs, which can be seen from the various facilities and infrastructure that have been provided which include training, ease of processing business licenses, and assistance in terms of promotion (Beatrice and Hertati., 2023).

H3: The government has a significant influence on improving the performance of food and beverage MSMEs in Malang City.

### Business people

Business actors play an important role in the development of Micro, Small and Medium Enterprises (MSMEs) by facilitating access to capital, such as the provision of raw materials, production equipment, and information related to business networks that are beneficial to MSMEs (Arifin et al., 2021). Business actors, through various programs provided, have an important contribution to the overall progress of MSMEs by providing capacity and expanding the reach of their businesses (Trianti et al., 2024).

H4: Business people have a significant influence on improving the performance of food and beverage MSMEs in Malang City.

### Media

Media has a strategic role In the digital era, information on social media can be disseminated and received by the public quickly and easily. MSME players have personally utilized social media to develop their businesses. However, the government does not yet have a social network account that can be used to upload information, activities, or other information. promoting MSMEs (Ishak and Sholehah, 2021).

H5: Social media has a significant influence on improving the performance of food and beverage MSMEs in Malang City. In summary, the research model and hypothesis relationships are shown in Figure 1

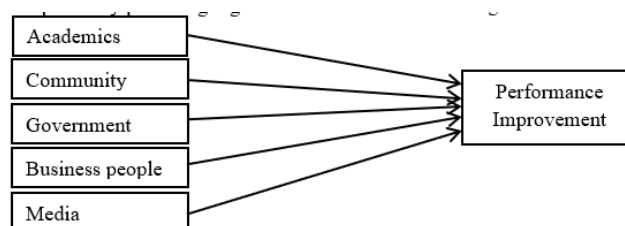
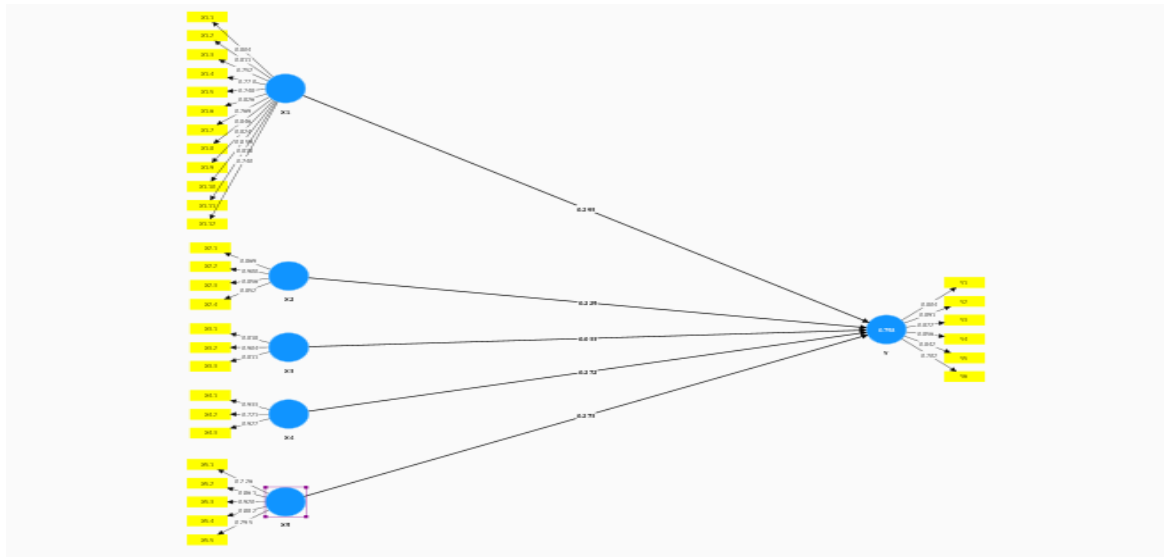


Figure 1. Research Model and Hypothesis Relationship

## RESULTS AND DISCUSSION

Respondents in this study were food and beverage MSMEs in Malang City. This is because there are a lot of food and beverage MSMEs in Malang City and culinary businesses are easier in the sales process compared to other MSMEs consisting of internet technology, automotive, education, agriculture, culinary, and fashion MSMEs. It has been explained previously that this research uses a survey by distributing questionnaires and in-depth interviews with several resource persons.

The survey method used in this research is by distributing questionnaires directly to respondents. Researchers distributed questionnaires directly using Google Forms by means of respondents scanning the QR code that had been created by the researcher, making it easier for respondents to use the questionnaire. In filling out Google Forms. The number of questionnaires distributed to respondents was 100. After distributing Google Forms to 100 respondents, researchers conducted in-depth interviews with several sources by directly visiting the sources to be interviewed.



**FIGURE 2.** visualization algorithm model of SmartPLS  
Source : Data processed (2024)

Figure 2 is a visualization algorithm model of SmartPLS 4 running results from constructs and indicators in the study. In this study, the Academic variable construct (X1) has 12 indicators consisting of X1.1, X1.2, X1.3, X1.4, X1.5, X1.6, X1.7, X1.8, X1.9, X1.10, X1.11, and X1.12, Variable Community (X2) has 4 indicators consisting of X2.1, X2.2, X2.3, and X2.4, Government Variables (X3) has 3 indicators consisting of X3.1, X3.2, and X3.3, Variables Businessman (X4) has 3 indicators consisting of X4.1, X4.2, and X4.3, and the Social Media variable (X5) has 5 indicators consisting of X5.1, X5.2, X5.3, X5.4, and X5.5. Structural model analysis in this study uses Partial Least Square (PLS) 4.0 to produce parameter estimates and predict causal relationships. Structural model evaluation is carried out through three stages, including convergent validity test, discriminant validity test, and reliability test.

### Convergent Validity Test

**TABLE 1.** Outer Loading

	Academics (X1)	Community (X2)	Government (X3)	Business Actor (X4)	Social Media (X5)	Performance Improvement (Y)
X1.1	0.804					
X1.2	0.811					
X1.3	0.752					
X1.4	0.770					
X1.5	0.748					
X1.6	0.826					
X1.7	0.769					
X1.8	0.846					
X1.9	0.824					
X1.10	0.859					
X1.11	0.818					
X1.12	0.740					
X2.1		0.869				
X2.2		0.900				
X2.3		0.856				
X2.4		0.852				
X3.1			0.818			

X3.2	0.904		
X3.3	0.811		
X4.1		0.933	
X4.2		0.721	
X4.3		0.927	
X5.1			0.726
X5.2			0.861
X5.3			0.920
X5.4			0.882
X5.5			0.795
Y1.1			0.804
Y1.2			0.891
Y3			0.872
Y4			0.856
Y5			0.842
Y6			0.702

Source : Data processed (2024)

Hair et al. (2021) states that validity testing focuses on the convergent validity of each measurement using average variance extraction (AVE). If there is a change in an indicator in a construct, then other indicators of the construct will also change. Hair et al. (2022) states that a correlation is said to fulfill the convergent validity test if it has an AVE value greater than 0.5. This is because if the value of the convergent validity test is greater than 0.5, the AVE value will also change. Greater than 0.5, it shows that the construct explains 50 percent or more of the indicator variance. After testing using smartPLS, the results of the calculation table 1 shows that the *outer loading* of each indicator on each variable shows a value greater than 0.5 so that the indicators used in the study are declared valid because they have a parameter value of more than 0.5.

### Discriminant Validity Test

After obtaining the test results from the convergent validity value, the next step is to analyze the results of discriminant validity. Hair et al. (2021) state that discriminant validity is to measure a construct empirically and is different from other constructs in the structural model. Discriminant validity can be fulfilled if each indicator on each variable reaches more than 0.7. Even so, if the value is less than 0.7, the discriminant variable is still considered valid because it has a parameter value of more than 0.5. After testing using smartPLS, the calculation results in table 2 show that the Cross Loading values on these measurements do not all have a discriminant validity value of more than 0.5. This shows that each indicator in this study can be declared valid.

### Reliability Test

TABLE 3. Latent Variable Reliability Test Results

	Cronbach's Alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Average Variance Extracted (AVE)
Academics (X1)	0.949	0.959	0.955	0.637
Community (X2)	0.892	0.893	0.925	0.756
Government (X3)	0.807	0.886	0.883	0.715
Business Actor (X4)	0.842	0.955	0.899	0.750
Social Media (X5)	0.898	0.952	0.922	0.705
Performance Improvement (Y)	0.908	0.910	0.930	0.689

### Structural Model Test

a. R Square test (R)<sup>2</sup>

TABLE 4. R Square Test

R Square	R Square adjusted
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Performance Improvement	0.758	0.745
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Source : Data processed (2024)

Hair et al. (2021) states that the value of  $R^2$  ranges from 0 to 1, with a value that is higher or closer to 1, it can show better explanatory power. Table 4 shows the coefficient of determination of the  $R$  value<sup>2</sup> of 0.758, so it can be concluded that if the exogenous variables (X1, X2, X3, X4, X5) in this study have explained the variation in the endogenous variable (Y) by 75%, while 25% of the improvement in MSME performance is influenced by other variables outside the study. In this case, the exogenous variables have an influence on improving the performance of MSMEs in Malang City.

a. Significance Test

**TABLE 5.** Data *Bootstrapping* Results

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics ( O/STDEV )	P values
X1 → Y	0.293	0.286	0.104	2.812	0.005
X2 → Y	0.225	0.229	0.083	2.724	0.006
X3 → Y	0.033	0.027	0.091	0.363	0.716
X4 → Y	0.272	0.286	0.096	2.828	0.005
X5 → Y	0.273	0.273	0.060	4.537	0.000

Source: Data processed (2024)

Based on the output in table 5, the results of testing the hypothesis of this study using a statistical tool in the form of SmartPLS and it can be seen that to determine the level of significance, the hypothesis of this study is tested. between variables can be done by calculate bootstrapping with a significance value of 5% (0.05).  $P = 5\%$ , then  $T = 1.96$  so that can be it is said that the T-statistic can be said to be significant if it has a value  $> 1.96$ .

## DISCUSSION

### The Influence of Academia's Role on Improving MSME Performance

Academics as actors, in this case universities and research institutions, are critical to the growth of MSMEs and the creation of a knowledge- and capacity-based society. The results are relevant to the current condition of MSMEs in Malang City, where the role of academics is very helpful in improving the performance of MSMEs. It can be interpreted that MSME actors in Malang City realize the importance of academics in improving the performance of MSMEs through providing literacy about what is needed for MSME businesses to continue to grow.

The results of research on academic variables show significant results, this is reinforced by the results of interviews with academics, namely, lecturers at the Islamic University of Malang who provide several programs in the form of socialization and training in the form of financial literacy, digital marketing literacy, marketing literacy, bookkeeping literacy for incoming and outgoing goods. This is confirmed by the answers to the interview results "Academics such as these lecturers often conduct socialization and training on simple financial reports, digital marketing, product marketing," said Mrs. Eny. To MSMEs in Malang City, academics also provide assistance in the form of production equipment and capital assistance to support the effectiveness of MSME production. "This year, we, the academics, have also provided equipment assistance in the form of a sealer machine to Nori Crispy MSMEs in Malang City," said Ms. Karina. The role of academics is not only given by the Islamic University of Malang, but in its role to improve the performance of MSMEs, Brawijaya University and Malang State University have also made the same efforts as academics from the Islamic University of Malang. "In 2022, I also received capital assistance and training from Malang State University students who are doing community service," said UMKM Rurie Malang City.

The role of academics has a very important relationship in helping MSMEs to improve their performance. With this collaboration between academics and MSMEs, it can increase competitiveness and product quality so that they can compete in a wider market. Hafidz et al. (2023) stated that academics, in this case universities, also play a role in improving the performance of MSMEs, which have made efforts to increase the knowledge capacity of MSMEs in Medan Labuhan District. The University of North Sumatra has carried out community service activities entitled Independent Women SMEs in Medan Labuhan District with good results. Independent Women SMEs already have a brand and logo created during training and mentoring. Trianti et al. (2024) stated that the role of academics does not only involve lecturers, but students also actively participate through mentoring MSMEs, so that it can make a positive contribution to improving the management capabilities of MSMEs.

## **The Effect of Community Role on Improving MSME Performance**

The community as an actor plays an important role in improving the performance of MSMEs. Where the community is a group of individuals who share experiences in a certain environment and have common interests and occupations. The formation of the community is carried out as a place for MSME actors to be able to communicate easily with other MSME actors to develop each other, in this case, the existence of a community can make it easier to provide information needed by MSME actors.

The results of research on community variables show significant results, this is reinforced by the results of interviews with Malang City MSME players who join the MSME community in Malang, including Rurie MSMEs. (Preman super community and mbois community), UMKM Nori Crispy (mbois community), UMKM Erles Bakery (nozama ngalam community and tumbas community), and UMKM Family Cookies (Malang IKM community). "The community group is always updated and fast if there is information about training and socialization of MSMEs like that," said UMKM Family Cookies. "The community group usually always shares when there is training or socialization, often the training from Diskoperindag," added UMKM Nori Crispy. In addition, the community also plays a role in providing information about quality raw materials. "Usually in the community group, they often provide information on raw materials, sometimes at the Diva shop in the big market or the one in Singosari," said the owner of erles bakery UMKM. The community also supports product development by providing information about where to market products to a wider market. "Usually there is also information for product marketing places, for example in souvenir shops," said UMKM Rurie. Through the Malang City MSME community, MSME players can not only expand their network, but also gain direct access to resources that have expertise in various fields.

The role of the community has a very important relationship in helping MSMEs to improve their performance. This can be seen from the various contributions of the community, ranging from providing information on quality raw materials, information on training and socialization, and information on where to market their products. The support provided by these communities not only helps MSMEs obtain better resources but also expands their business networks, thereby facilitating access to a wider market. This collaboration can support a significant improvement in the performance of MSMEs.

Hafidz et al. (2023) state that the Community helps businesses promote products, and the community provides a place to share and exchange ideas and experiences for the progress of each business. The interview results also show that the government's efforts to form a community in Medan Sub-district Labuhan has a positive impact on MSMEs and the community itself. Trianti et al. (2024) stated that with the community, MSME actors can share ideas, build relationships, exchange information about raw material suppliers, and can collaborate to understand the market at large. This collaborative environment can encourage MSME players to increase their sales turnover.

## **The Effect of Government Role on Improving MSME Performance**

In the pentahelix model, the government functions as a regulator and coordinator whose job is to regulate and encourage other parties to participate in the improvement of MSMEs, especially in Malang City MSMEs. The results of research on government variables show insignificant results, so this variable can be strengthened by the results of interviews with government parties, namely, interviews with Ms. Nanda as staff in the micro business sector of the Cooperative and Trade Office of Malang City and MSME players in Malang City. From the government, it was explained that "The data collection from the government has not been evenly distributed, therefore there are several MSMEs that still have not received assistance from the government" said Ms. Nanda. However, beyond these obstacles, the government is very supportive of improving the performance of MSMEs by facilitating the needs of MSMEs, as well as providing training and coaching to MSME players to improve the performance of Malang City MSMEs. "The government often provides training and coaching on digital marketing, marketing, sometimes there are also business practice classes," said UMKM Nori Crispy. "My training and coaching is often from the government, but I have to follow the data collection first before I can participate in the training," added UMKM Erles Bakery.

The government's role in the MSME sector is to provide physical and non-physical program assistance. For physical program assistance, the government provides capital assistance in the form of tools to support the effectiveness of MSME production. "For the provision of equipment assistance to MSMEs, usually there must be requirements and selection in advance so that the assistance is right on target," said Ms. Nanda. While non-physical assistance, the government provides training and socialization programs, as well as provides practical class facilities and convenience in processing business licenses such as, processing Business License Numbers (NIB), Household Industry food (PIRT), BPOM, Halal, and other licenses. "For business licensing we cooperate with several agencies, in order to facilitate the licensing process, for NIB, PIRT we are directed to the licensing office, for Halal management we are directed to the Halal Center, and for IPR (brand) management we cooperate with KEMENKUMHAM," said Mrs. Nanda. The support provided by the government has a very important role for the growth of MSMEs, through MSME training and mentoring programs, ease of business legality, assistance with production equipment, the government can also facilitate the marketing of MSME products through exhibitions and the development of digital platforms to expand market reach. "I often participate in product exhibitions, usually the facilities have been provided by Bank Indonesia, starting from the exhibition venue, transportation, etc.," said UMKM Rurie as a Partner of Bank Indonesia. In this case, the role of the government is not only from DISKOPERINDAG

Malang City, but Bank Indonesia is also included in the government by providing training and business coaching to MSMEs. Therefore, the role of the government is very important in helping MSMEs to improve business performance in the long term.

Beatrice and Hertati (2023) stated that development activities in improving the performance of MSMEs carried out by the government, especially the Surabaya Surabaya City government, such as providing facility assistance, guidance, mentoring, and strengthening support to be able to develop and improve the competitiveness of MSMEs. Ishak and Sholehah (2021) state that government support has a crucial role for MSME actors. The role of the government in encouraging the development of MSMEs is effectively and optimally realized. through its functions as facilitator, regulator, and catalyst.

### **The Influence of the Role of Business Actors on Improving MSME Performance**

Business actors have a role as enablers. In improving the performance of MSMEs, business support is carried out by MSME actors directly and there is support from other private parties. MSME actors in Malang City are the main actors in improving MSMEs at this time, because these MSME actors are the ones running the business. The research results on business people variables show significant results, this variable is reinforced by the results of interviews conducted with business people in Malang City, namely interviews with Mr. Fahmi as the sales counter coordinator of JNE Malang City and Ms. Evi as the owner of Nori Crispy UMKM Malang City. Business people from JNE explained that "One of the efforts to help the performance of MSMEs is usually at JNE to socialize MSME business people, including holding seminars to increase knowledge with MSME business people," said Mr. Fahmi. In addition, JNE also provides training programs that focus on MSMEs fostered by JNE in the form of digital marketing training, live streaming in the marketplace, and collaboration with influencers in Malang City. "For training and business socialization for MSME players in Malang City, the places are different, one of which is located at the Ibis Hotel Malang City," said Pak Fahmi. In this case, JNE has an important role in helping to improve the performance of MSMEs, especially MSMEs in Malang City through training, socialization, and coaching.

The second interview with a business actor was with Ms. Evi as the owner of Nori Crispy who also plays an active role in providing business training to MSMEs in Malang City. Ms. Evi revealed that "Apart from running this business, I am also involved in various business training activities to support MSME players in Malang City," said Ms. Evi. Involvement in the training is a form of real contribution from Malang City business people who also have a role to play in helping MSME players to develop their business. their business better. "The training is often at the Montana Hotel," added Ms. Evi.

The role of business people in this case is not only limited to running and owning a business, but also includes active contributions in the development of MSMEs through training and mentoring to help improve the abilities and knowledge possessed by MSME actors in Malang City. In addition, the role of business people is also very important in improving the performance of MSMEs through the training provided, with direct guidance from experienced business people, MSMEs can be more effective in running their business and able to face various challenges in the business world. The training is one of the strategic ways to strengthen MSMEs, especially those in Malang City.

Beatrice and Hertati (2023) state that the presence of business as a support for MSME actors in improving capabilities through training or knowledge received to support changes in human resources, products and business processes that they run. Sultan et al. (2024) state that business actors have a very important role through cooperation to encourage the growth and success of MSMEs.

### **The Influence of the Role of Social Media on Improving MSME Performance**

In the application of the pentahelix model, social media functions as an expander, this is because social media has a role as a publication supporter in MSME efforts to promote themselves and build their brands. Social media has an important role in improving MSMEs, especially in the current era which has very rapid advances in technology and knowledge. Social media functions in the development of MSMEs as a platform used to market the products produced by MSMEs, as well as in accelerating the delivery of information. Improved business performance of MSME players will improve if the role of the media and the other four roles are well utilized. The results of research on business variables show significant results, this variable is reinforced by the results of interviews with MSME actors, the use of social media has a positive role in improving the performance of MSMEs. The social media that are often used are Instagram and WhatsApp Business, In Instagram social media, it contains activities carried out by Malang City MSME players, products produced, and other information. "For Instagram, I am not too active, because sometimes I am confused about what kind of content to create, but for product information and photos of activities on Instagram, there is everything" said UMKM Erles Bakery. "My product Instagram also has a traffic link that contains the WhatsApp number and my shopee shop, yesterday it was made by community service children from the State University of Malang". Said UMKM Rurie.

The utilization of social media in the development of MSMEs is considered to be very supportive of increasing sales of MSME products. Apart from using Instagram social media, MSME players also utilize Whatsapp Business to market their products. Through Whatsapp Business, MSME players can easily convey information about the products produced through the catalog available on the Whatsapp Business of MSME players. In addition, MSME players can also take advantage of



Whatsapp Business to promote their products through whatsapp stories. "I am indeed more active in using whatsapp social media for product promotion, usually I make whatsapp stories about activities to send goods or product videos," said UMKM Nori Crispy. "With social media, many people also know about my products, so the demand for products and enthusiasts is also increasing," said UMKM Rurie.

Beatrice and Hertati (2023) stated that the use of social media in the development of MSMEs is considered to be very supportive of increasing sales of MSME products. If utilized optimally, the role of social media can help and have a positive impact on MSMEs. development and performance improvement of MSMEs. Sultan et al. (2024) stated that the involvement of social media support in marketing MSME products is considered very effective and can increase consumer perceptions and buying interest in these products.

## **CONCLUSIONS**

The development of the pentahelix model collaboration between the five stakeholders involving academics, communities, government, business people, and social media has a very significant relationship in improving the performance of MSMEs in Malang City, especially in the food and beverage sector. This collaboration involves the active contribution of each stakeholder in providing sustainable support for MSMEs in Malang City. Good implementation of this pentahelix model will increase the competitiveness of MSMEs in a wider market, encourage local economic growth, and strengthen the MSME sector as the cornerstone of the economy in Malang City. Thus, this pentahelix collaboration not only contributes to the sustainability and development of MSMEs, but also plays a role in creating a comprehensive and sustainable economic ecosystem for Malang City in the future.

## **IMPLICATIONS**

The implications of this research are related to the pentahelix model collaboration theory which consists of five stakeholders, including academics, communities, government, business people, and social media, and it can be explained that the collaboration between these stakeholders can improve the performance of Malang City MSMEs, especially in the food and beverage sector. Overall, the implementation of this pentahelix model collaboration is expected not only as a driver of Malang City's local economy, but is able to have a positive impact on Malang City's economy, create jobs, and reduce unemployment in Malang City.

## **RECOMMENDATIONS**

This research explains the importance of stakeholder collaboration in improving the performance of Malang City's MSMEs, especially in the food and beverage sector, which is very large compared to other MSMEs. There are several recommendations that can be implemented by stakeholders in the pentahelix model. First, the role of academics is expected to continue to develop sustainable training and mentoring for MSME players, especially literacy regarding marketing, digital, and finance. Second, the role of the community is expected to strengthen the network between MSME actors by creating a space for sharing information and business development opportunities. Third, the role of the government is expected to improve the data collection system for MSMEs in Malang City evenly, so that facilities and assistance programs are right on target. Fourth, business actors are expected to continue to provide access to support that can strengthen the performance of MSMEs, through mentoring, training, and can assist MSMEs in expanding their marketing networks. Last the role of social media is expected to be a platform that continues to provide space for business people to improve and market their products more widely. The collaboration of the five stakeholders is expected to better understand the specific needs of MSME players in Malang City. So that the training, mentoring, facilities and capital assistance provided by the five stakeholders are right on target and as needed.

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