

# Mapping the Halal, Safety, and Quality Food Industry for Micro and Small Enterprises in Pasuruan Regency

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## **Abstract:**

*Most of the processing industry's business actors in the Pasuruan Regency are micro and small enterprises (MSEs). The COVID-19 pandemic primarily affects MSEs, particularly those without business legalities. Some halal and quality food regulations need to be followed. This study aimed to map the halal, safe, and quality of MSEs in the food industry. Surveys, interviews, and Focus Group Discussions (FGD) were used in this method. According to the findings, food industries increased the added value of local ingredients while also creating jobs in rural areas. Robusta coffee powder products had patents and geographical indications in this regency. Processed fish had halal certificates, becoming local brands. Most of the MSEs' processed foods are halal but not certified. The MSEs' knowledge of halal and qualified materials, including food additives, is minimal. Internal audits by MSEs of halal control points (HCP) and critical control points (CCP) are not conducted periodically. Halal and safety food policies have yet to be applied in many MSEs. Halal certification in MSEs is still less than 5%. Sanitation hygiene and good handling practices (GHP) in several MSEs must be improved. The support from Indonesian Ulema Council (MUI), Nahdlatul Ulama (NU), Muhammadiyah, universities, Halal Product Guarantee Agency (BPJPH), and Local Government has yet to be integrated. Integration and collaboration are*

*expected to improve MSEs' food industry knowledge, skills, attitude, and integrity.*

**Keywords:** *halal food, MSEs, quality, regulation, safety*

## **1. Introduction**

The world's micro and small enterprises (MSEs) are experiencing financial difficulties, supply chain disruptions, declining demand, declining sales, and declining profits due to the COVID-19 pandemic lockdown. Over 83% of SMEs in Pakistan need to prepare for or have plans to deal with this situation (Nordhagen *et al.*, 2021; Shafi *et al.*, 2020).

Consumers' trust is critical. Food certification is a feature of food labelling that policymakers and marketers use to bolster consumer confidence in food. Consumers trust in the food system and the actors involved in its supply chain affects their overall perception of food safety and the foods that they choose and consume. Interpersonal trust is primarily used to influence consumer food choices when abstract trust in the integrity and competence of the broader institutional system is low (Truong *et al.*, 2021). Before COVID-19, Pasuruan Regency's MSEs

were relatively trouble-free. Due to the prevalence of Islamic boarding schools and halal culture in Muslim-majority societies, the halal attributes are never disputed. Consumers shopped for groceries online with home delivery during the COVID-19 pandemic (Roggeveen & Sethuraman, 2020). The halal logo and its quality affect the purchasing of a product (Sucipto *et al.*, 2021a). Lifestyle changes have a significant decline in food MSEs turnover. It is critical to understand the underlying cause of the problem.

The Gross Regional Domestic Product (GRDP) of Pasuruan Regency is currently IDR 145,592.02 billion, a decrease from IDR 145,919.99 billion last year. IDR 41.71 billion is contributed by the food and beverage industry, up from IDR 38.56 billion last year (Central Bureau of Statistics, 2021). Processed food increased the added value of local ingredients while also creating jobs in rural areas. According to the Indonesian Ministry of Cooperatives and SMEs database, 615 MSMEs respondents in Pasuruan Regency reported a decline in turnover in April 2020, based on an online survey (Ministry of Cooperatives and SMEs of the Republic of Indonesia, 2021a). Numerous micro-enterprises have run out of working capital due to it being used to survive, resulting in difficulties. The government stimulated the economy by providing productive micro-enterprise assistance (BPUM) to 42,625 micro-enterprises in the Pasuruan Regency (Ministry of Cooperatives and SMEs of the Republic of Indonesia, 2021b). The Pasuruan Regency Government issues an appeal letter for all State Civil Apparatuses in Pasuruan Regency to spend on cooperative and MSMEs products to create a market (Pasuruan Regent Accountability Report, 2021).

The decline in SME sales during the COVID-19 pandemic was attributed to the limited use of digital technology (Bai *et al.*, 2021) and the business's insufficient legality such as Business Permit Number

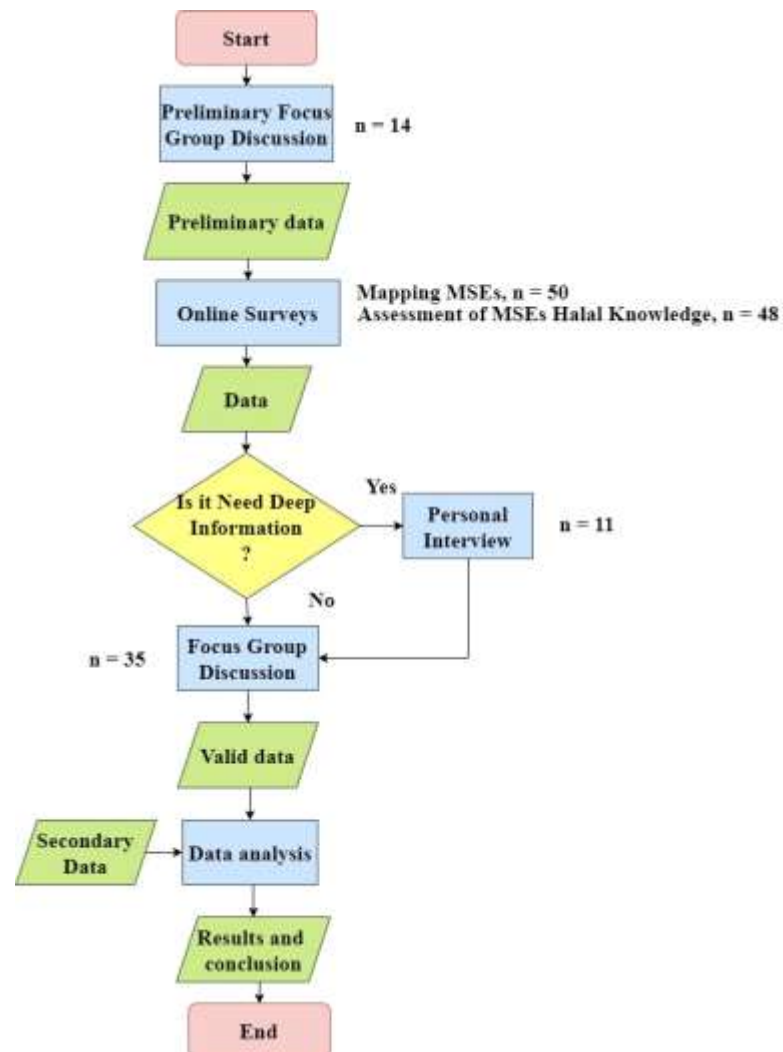
(NIB), Food-Home Industry (P-IRT), Indonesian National Standard (SNI), Food and Drug Supervisory Agency (BPOM), Good Manufacturing Process (GMP), Halal Certificate. NIB is the identity of a business actor granted by the Investment Coordinating Board of the Republic of Indonesia and is a requirement for obtaining advance permissions. PIRT is a licensing certificate for the household food sector that ensures the public that the entire manufacturing process adheres to health regulations. SNI is a National Standardization Bureau (BSN)-issued standard. The BPOM is responsible for monitoring the distribution of pharmaceuticals and food in Indonesia. NIB, P-IRT, SNI, and BPOM for Indonesian intern trading, and GMP and halal certificates are important in international food trading. These certificates guarantee food safety and quality insurance of the food MSE's products.

Halal food consumers increase with the integrity of the halal designation and want to know about activities in the supply chain that determine the products are genuinely halal (Zulfakar *et al.*, 2014). Consumers prefer to purchase halal-certified meat from supermarkets that ensure the separation of halal and non-halal meat. Muslim consumers are willing to pay a premium (on average 13% higher) for halal-certified meat in Islamic butcher shops compared to supermarkets (Verbeke *et al.*, 2013). The halal map in the MSEs food industry of Pasuruan still needs to be improved, and it causes difficulties for the government to set proper regulations related to the halal development program among the MSEs. This research aimed to develop a map of the halal, safe, and high-quality food industry in the MSEs of the Pasuruan Regency.

## 2. Method

The research was conducted between August and September 2021 in Pasuruan Regency, East Java Indonesia. The methods used in this mapping were online surveys (Braun *et al.*, 2020), in-depth interviews, and focus group discussions (FGD) (Wilson, 2014) that as shown in **Fig. 1**. The online survey was conducted twice with 50 and 48 food SMEs as respondents. In-depth interviews were conducted with 11 policymakers in the Pasuruan Regency government to clarify the findings of the online survey results. The FGD was carried out in two stages: the Preliminary FGD and the Main FGD. The Preliminary FGD was attended by 11 participants from the MSEs Associations. The main FGD was attended

by 35 participants, including the MSMEs associations, the Pasuruan Creative Network (PANCENE), the Chairman of Pasuruan Regency Indonesian Ulema Council (MUI), namely Nurul Anwar, the Pasuruan Regency Administrator of Nahdlatul Ulama (NU) represented by the Head of Ansor Business Clinic (Muhammad Asári Hasan), the Chairman of Pasuruan Regency Leadership of Muhammadiyah (Aufin), universities, the Head of Halal Products Guarantee Agency (BPJPH) of the Pasuruan Regency Ministry of Religion (Muhammad Asádul Anam), and the Local Government. The main FGD was to validate the data and also create an action plan collaboration.



**Fig. 1.** The Mapping of the Halal, Safe, and Quality Food Industry in Pasuruan Regency for MSEs

This paper also analyzed secondary data (Johnston, 2014) on the food and beverage industry's contribution to the Gross Regional Domestic Product of Pasuruan Regency and budgets for training on hygienic, safe, and quality food processing (Revenue and Budget Regional Expenditure of Pasuruan Regency, 2021), and MSEs Data (Ministry of Cooperatives and SMEs of the Republic of Indonesia, 2021a,b). The secondary data were analyzed descriptively (Akhtar, 2016) to explain the role of SMEs in Pasuruan economic condition after the COVID-19 pandemic.

### 3. Results and Discussion

#### 3.1. Mapping Results for the Halal, Safe, and Quality Food Industry for MSEs

The results of online surveys, personal interviews, and FGD indicate that the only category of MSEs that will survive the COVID-19 pandemic is

entirely legal (NIB, P-IRT, SNI, BPOM, GMP Certificate, Halal Certificate). Additionally, they use social media and communication application groups and maintain an adequate working capital position. Among the MSEs that have survived were Jaladri Food's PINA brand processed frozen fish and shrimp, Isrina Food's Crispy Lempuk Fish, and Dua Putri's processed frozen catfish. Certified processed fish products have been developed into local brands that can withstand the COVID-19 pandemic. Halal certification is the best tool for determining whether a product is genuinely halal. The certificate gives consumers confidence (Othman *et al.*, 2015). Despite having a Geographical Indication, a patent, and halal certificates, coffee products have significantly declined in sales since the pandemic. Coffee's distinctive feature is that it is best enjoyed in communal settings such as cafes. Simultaneously, cafes were forced to close due to crowd control measures containing the COVID-19 pandemic.

**Table 1.** Mapping Results for the Halal, Safe, and Quality Food Industry for SMEs

Subject	Available (%)	In submission/ complete process (%)	In the process of preparation (%)	Not Available (%)	Do not know (%)
Halal Policy	35.42	20.83	14.58	25.00	4.17
Training and Education	35.42	18.75	8.33	29.17	8.33
List of Ingredients	58.33	4.17	10.42	20.83	6.25
Product Catalogue	45.83	6.25	6.25	35.42	6.25
Production Facilities	52.08	6.25	14.58	22.92	4.17
Procedures in writing for critical activities	43.75	10.42	6.25	31.25	8.33
Traceability	39.58	10.42	16.67	29.17	4.17
Managing nonconforming products	27.08	10.42	12.50	31.25	18.75
Internal Audit	18.75	10.42	12.50	50.00	8.33
Management Evaluation	22.92	6.25	20.83	39.58	10.42

Source: Online survey results, 2021

Table 1 summarizes the mapping of the MSEs' food industry. Commitment, traceability, and processing of halal products were low since only 35.42% of SME owners received training and education. It is a result of the inadequate

and fragmented training and education offered by the MUI, NU, Muhammadiyah, universities, BPJPH, and local governments.

Facilitating halal certification for MSEs continues to be a focus of both the

East Java Provincial Government and the Central Government's programs. The head of BPJPH reports that 5% of MSEs in the Pasuruan Regency are halal-certified. The Government of the Republic of Indonesia has issued Law No. 11 of 2020 on Job Creation, amending Law No. 33 of 2014 on Halal Product Guarantees. Government Regulation No. 39 of 2021 on implementing the Halal Product Assurance Sector has been issued as an implementing rule. Micro and Small Enterprises may self-declare. Halal supervisors who have been certified as competent by themselves, the community, or the government may make a halal pledge under the Halal Product Guarantee Agency's standards in the presence of witnesses. Due to the scarcity of competent certified halal supervisors, the government is currently offering a free halal certification program to MSEs, but the quota is minimal.

The in-depth interview showed that most MSEs need adequate documentation, taking time to complete several requirements to obtain halal certificates. They still need to record their business activities and complete the evidence. MSEs almost entirely shop in retail stores and do not ask for a halal certificate number for the goods they buy. Implementation of the Government Regulation, Minister of Religion Decree Number 748 of 2021 concerning Types of Products Required to Be Certified Halal has been issued, Decree of the Head of the BPJPH Number 57 of 2021 regarding criteria of the Halal Product Assurance System (HPAS). The HPAS manual template was published in September 2021. MSEs must gradually comply with all provisions to ensure consumer protection and improve their business performance. The halal certification regulations and customer demand considerably impact whether a product is submitted for certification (Sucipto, *et al.*, 2021b).

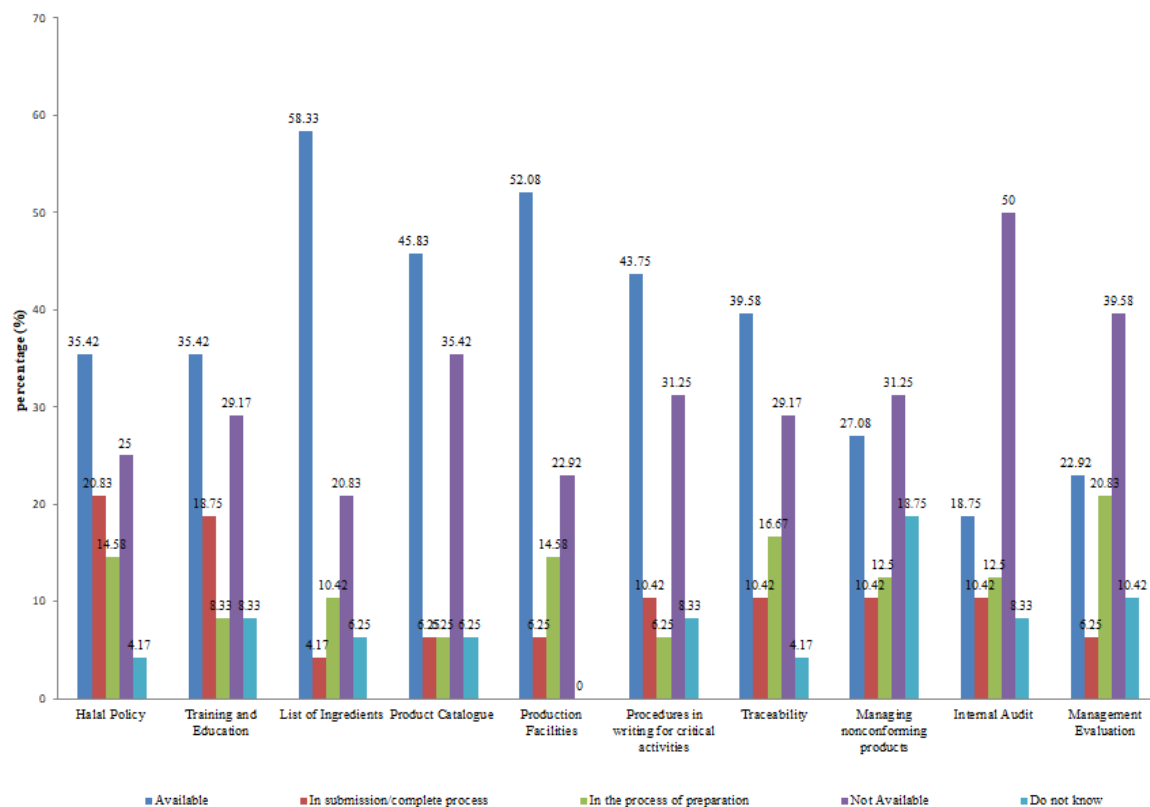
The FGD findings indicate that critical supply chain and halal logistics

issues exist in MSEs. The regional government owns ten large livestock slaughterhouses, but only four still need to be equipped with Halal Certified Competent Slaughterers. The community's poultry slaughterhouse was assisted by the MUI, NU, and Muhammadiyah and performed admirably. The supply chain's critical point is the poultry traders who slaughter their poultry in traditional markets. Participants in the FGD at Yudharta University stated that the MSEs they assisted were previously committed to the halalness of their products but abandoned it long ago when market demand was high due to their sole focus on productivity. Halal logistics is critical for ensuring the supply chain integrity of halal products. Halal food production is predicated on a thorough understanding of and adherence to sharia requirements (Ahmad & Shariff, 2016). One factor that retailers must consider to provide efficient service to their customers is the operational effectiveness of their stores in addressing the issue of halal and tayyib fulfilment. Retailers must maintain a close eye on their supply chain because consumers demand it (Zainuddin & Shariff, 2016). The halal supply chain's integrity and transparency can be improved through blockchain technology. The recent decline in halal traceability of other critical aspects of food, such as quality, safety, and integrity, is strongly associated with blockchain technology (Ali *et al.*, 2021). According to Rahman *et al.*, (2017), a comprehensive traceability system is necessary to bridge the divide between perceived benefits and readiness for a Halal Assurance System (HAS).

Internal audits of halal control points (HCP) and critical control points (CCP) are conducted by 18.75% of MSEs. Audits are used to ensure the validity and reliability of data; individuals, organizations, processes, and systems all play a role in providing reasonable assurance for the production and supply of halal food. With the complexity of today's

food manufacturing, it is not easy to know the ingredients that go into the food we eat (Farooqui & Kurt, 2014). Audits are critical because people tend to revert to bad habits if constantly evaluated (Al-Teinaz *et al.*, 2020). Muslim consumers are frequently taken aback by reports of cross-contamination in the halal food they consume. These issues drive them to take extraordinary measures to ensure the products they purchase are monitored throughout the supply chain. MSEs must be prepared to implement a traceability system to ensure halal products' authenticity. Furthermore, they must understand the critical function of halal industry environmental factors (HIEF) in preserving the integrity of the halal food supply chain and avoiding cross-contamination concerns.

A management evaluation must be undertaken at least once a year to ensure halal, safe, and high-quality food. Management reviews are carried out by 22.92% of MSEs. Micro and small businesses have many challenges regarding safety and halal compliance (Marsusvita *et al.*, 2021). Best ethical practices can help halal management be more productive (Nuratifah *et al.*, 2019). Muslim consumers and halal food producers require access to halal-certified products. They determined the quality and halal products. Information, collaboration, support, policies, procedures, and training are further aspects that affect system implementation. Effective recruitment is important to achieve halal and quality/security requirements (Ahmad *et al.*, 2017).



**Fig. 2.** Graph of Mapping Results for Halal, Safe, and Quality Food Industry for MSEs

**Fig. 2** shows that of all the things identified, only the list of ingredients and production facilities available exceeded 50%. It indicates sanitation hygiene and good handling practices (GHP) require improvement in many MSEs. Increased knowledge, skills, attitudes, and integrity of MSEs impact their performance in producing halal-certified food of acceptable quality and safety. Halal training is critical for developing the halal industry's human resources. However, several issues and challenges must be addressed to ensure that human resource development meets job demands in the halal industry. Consumers and producers of halal products must have adequate education and knowledge about halal to comprehend the problems and issues confronting the halal industry and formulate suitable solutions to assist the halal industry. Education plays a critical role in developing an individual's

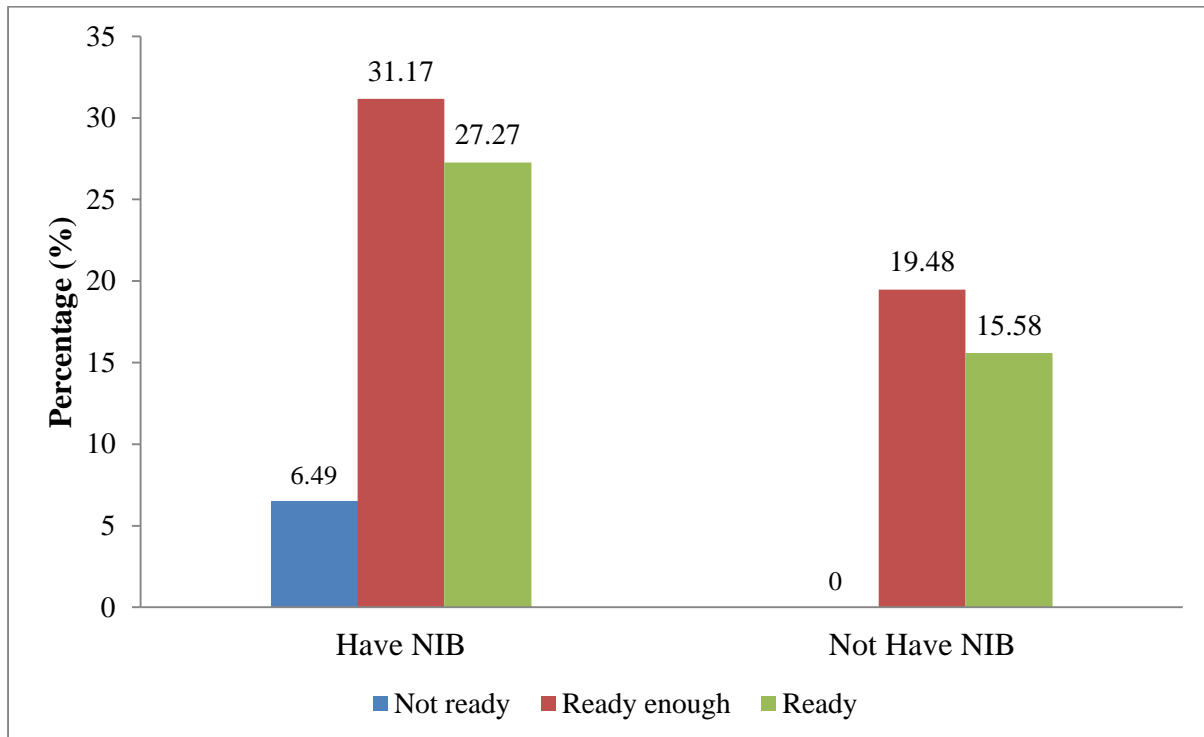
knowledge and abilities. Halal management training will ensure that knowledge and skill levels meet halal standards and that human resources are available to halal industry participants (Hashim & Shariff, 2016).

Halal standards serve as a tool for economic development, trade facilitation, food security, and safeguarding against the global market's adverse effects on the national economy (Suryawan *et al.*, 2019). The Halal Food Safety Management System (SHFMS) maintains discipline and is auditable. SHFMS provides manufacturers, customers, and legal entities with a sense of security. Halal critical control points (HCCP) can be established using HACCP criteria and concepts. Since standards and systems are sustainable throughout the food chain, the integrated system benefits producers and monitoring bodies and builds customer trust (Kohilavani *et al.*, 2021).

**Table 2.** The Correlations between the NIB and the Readiness of the Halal Industry (2-tailed)

		NIB	Readiness as a Halal Industry
NIB	Pearson Correlation	1	-.127
	Sig. (2-tailed)		.380
	N	50	50
Readiness as a halal industry	Pearson Correlation	-.127	1
	Sig. (2-tailed)	.380	
	N	50	50

**Table 2** indicates no statistically significant relationship between owning a NIB and MSEs' readiness to operate as halal industries. It means that most MSEs are ready to operate even though they do not have a NIB.



**Fig. 3.** Cross-tabulation between NIB and Readiness as a Halal Industry

**Fig. 3** depicts the crosstabulation between MSEs with a business permit number (NIB) and their readiness to operate halal industry, indicating that although MSEs do not yet have a NIB, they are in the ready category and are

reasonably equipped for halal production. MSEs have always been concerned with their products' halal status because most of them are Muslim. MSEs are not prepared to operate as halal industries, 6.49% only.

### 3.2. Results of Identification of Halal Knowledge of MSEs

**Table 3.** Assessment of MSEs Halal Knowledge

Subject	Agree (%)	Not Agree (%)	Do not know (%)
Ham, pig, bacon, and lard are terms used for ingredients derived from pork products	65.52	15.52	18.97
The addition of rum to processed foods is beneficial because it can enhance the flavour	22.41	32.76	44.83

Source: Online survey results, 2021

**Table 3.** shows that 34.48% of respondents are unaware that ham, pig, bacon, and lard are terms used for ingredients derived from pigs. Some respondents (22.41%) believed that flavouring processed foods with *rhum* (alcohol) would be advantageous. Due to a lack of halal literacy, the halal lifestyle has yet to be established. Social media as an

agent of halal socialization is necessary to change cultural structures and behaviour in society (Khasanah, 2020).

FGD results also clarified that MSEs require education on HCP and CCP, sanitation hygiene, GHP, GMP, halal and quality materials, and food additives to maintain their integrity in producing halal, safe, and quality food. Food industries



must develop a traceability system to guarantee the authenticity of halal products. They must comprehend HIEF's crucial role in enhancing the integrity of the halal food supply chain and preventing cross-contamination (Rashid & Bojei, 2019). The HPAS is meant to boost customer trust and corporate success in the food sector (Puspaningtyas & Sucipto, 2021). Due to MSEs' lack of knowledge, additives are inappropriate and exceed the threshold during food processing.

During the COVID-19 Pandemic, the sales of MSEs in the Pasuruan Regency were limited. It is caused by their continued reliance on offline markets and the incomplete legalization of their operations. The use of digital technology (Bai *et al.*, 2021), innovating processed products, maintaining product quality, improving facilities and infrastructure,

market penetration and product development are important to increase sales and business profits (Pangestika *et al.*, 2016; Putri *et al.*, 2014).

There have never been MSEs that purposefully included haram meat in their products since they already possess the required mindset, behaviour, and organizational culture. It is insufficient because consumers prefer to buy certified halal-labelled meat in supermarkets that guarantee halal and non-halal meat separation. Muslim consumers are willing to pay a premium price (13% average) for halal-labelled meat in Islamic butcher shops than in supermarkets (Verbeke *et al.*, 2013). Food halalness (Sucipto *et al.*, 2018) and halal assurance increase market share value, significant business cash, and better business continuity (Handayani *et al.*, 2020).

**Table 4.** Pentahelix Collaborative Action Plan for Halal, Safe and Quality Food Industry for MSEs

Subject	Responsible Institution
Training and Education	
1. Halal butcher	Animal Husbandry and Food Security Service
2. Halal supervisor training	Cooperatives and Micro Enterprises Service
3. Food safety training	Fisheries Service
4. Sanitary hygiene courses for food handlers of the street food vendors	Public Health Service
5. Marketing	Industry and Commerce Service
6. Packaging	Industry and Commerce Service
7. Entrepreneurship	Cooperatives and Micro Enterprises Service
8. Business administration	Cooperatives and Micro Enterprises Service
9. Innovation to enhance product value-added	Employment Service, Agriculture Service, Animal Husbandry and Food Security Service, Cooperatives and Micro Enterprises Service, Industry and Commerce Service
10. Guidance and implementation of requirements or standards on micro and small-scale processing and marketing businesses	Fisheries Service
Facilitation of legality (operating license and distribution permit)	
1. NIB, P-IRT	One-Stop Integrated dan Investment Service
2. Halal Certification	BPJPH
3. BPOM	BPOM
4. GMP	Industry and Commerce Service
Halal Product Assurance System Assistance	Government, MUI, NU, Muhammadiyah, universities, PANCENE, MSMEs association

Source: FGD results processed (2021)

The performance of MSEs and consumer protection must be enhanced so the FGD participants decide on a Collaborative Action Plan. **Table 4** details the action plans implemented between 2021 and 2024, presenting collaboration and the responsible institution.

## 5. Conclusion

MSEs play a crucial role in the economic structure of the Pasuruan Regency. Food industries' MSEs increase local ingredients' added value while creating jobs in rural areas. The study demonstrated how MSEs in Pasuruan Regency got decreased turnover during the COVID-19 pandemic. MSEs require education and training to improve compliance with regulations and fulfil food standards that are fit for consumption. Synchronization, integration, and the collaboration programs of Penta helix are needed. It is needed to improve the survival ability of MSEs in facing business challenges that change from time to time. A curriculum is required to develop MSEs' performance legally, institutionally, and in business volume.

## 6. Acknowledgement

We appreciate the Pasuruan Regency Government, MSEs respondents, and FGD participants on halal industry development who have helped during the mapping. Deep respect to the Directorate of Research, Technology and Community Service (DRTPM) 0267/E5/AK.04/2022 for the fund in Postgraduate Research Scheme-Doctoral Dissertation Research (PPS-PDD).

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