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Food Safety Policy, Implications for MSME Green Economy Based Product Processing

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Abstract
Processed food production plants are implementing the Food Safety Risk Management Program in accordance with BPOM Regulation Number 10 of 2023. Indonesian food safety surveillance is based on a preventive, risk-based paradigm where producers bear the main responsibility for food safety. The research's objective is to offer solutions to micro, small, and medium-sized firms (MSMEs) so that these businesses may also guarantee the quality and safety of their goods while working within the constraints of available facilities and resources for manufacturing and distribution. The study's conclusions imply that MSMEs should receive risk management training for food safety, which should include instruction on how to integrate halal practices into their production processes. Through zero waste, environmental friendliness, and energy efficiency, this research presents a strategy for implementing technological innovation based on a green economy. The basic concept of halal products requires business operators to manage the food processing in a series that includes zero-waste activities, environmentally friendly practices, and energy efficiency within a single production process. Food safety risk management programs ensure the implementation of this process. The research's conclusions suggest that MSME actors could find it easier to understand and implement this strategy. Now that the risks to food security have been eliminated, the halal certification procedure can proceed.

INTRODUCTION

To meet the needs of the broader community and develop solutions that are consistent with public interests, the government needs to be open and accessible, accountable and responsive, and operate to serve the citizens. The New Public Service (NPS) approach is the most coherent in implementing food security policies for MSMEs. It begins with the premise that the focus of public management should be on citizens, communities, and civil society. According to this idea, civil servants' main responsibility is to assist individuals in expressing and achieving their shared goals, not to rule or guide society (Bovaird et al., 2003; Denhardt & Denhardt, 2015). Given that the pharmaceutical industry is the service recipient and BPOM is the service provider, as well as that the general public will be directly impacted by the medications and food that are in circulation in Indonesia, BPOM must fulfil its responsibilities within the NPS framework (Dharma, 2022).

The Food and Drug Supervisory Agency (hereinafter abbreviated as BPOM = Badan Pengawas Obat dan Makanan) held a socialisation of BPOM Regulation Number 10 of 2023 concerning the implementation of the food safety risk management program in processed food production facilities. The Food and Drug Supervisory Agency is a non-departmental government agency established through presidential decree no. 166 of 2000, which was later amended by presidential decree no. 178 concerning position, duties, functions, authority, organisational structure, and work procedures of non-departmental government institutions (Aziz, 2020). Since its launch in 2015, the Risk Management Program (PMR) has experienced developments in

terms of the scope of implementation and completeness of infrastructure that supports the acceleration of its implementation in the food industry. Risk management theoretically or practically is an important need for the international program participants and the organiser (Aniroh, 2014).

Currently, PMR has been declared a National Priority Program, which continues to monitor the progress of its activities. The food industry implements PMR, one of BPOM's flagship programs, to ensure the safety and quality of its independently produced food products. Food safety supervision in Indonesia is targeted to follow the paradigm of modern food safety supervision, which is preventive and risk-based, with the main responsibility for food safety being in the hands of producers. BPOM, as the implementer of this policy, also cares about micro, small, and medium enterprises (MSMEs). MSMEs have a significant role in driving the economy and providing jobs for the community. MSMEs have an important role in the Indonesian economy because more than 90% of business actors in Indonesia are MSMEs (Pudyastuti, 2021). The implementation of the Food Safety Risk Management Program for MSMEs is expected to encourage MSMEs to have the capacity and capability to guarantee the safety and quality of products produced independently. Moreover, currently, MSMEs have to adapt to current developments in facing the era of globalisation and economic uncertainty.

Regarding food safety, currently, MSMEs in Indonesia are obliged to have a halal certificate, which also requires a business identification number (NIB) and taxpayer number (NPWP) (Bahrul, 2024). This cannot be separated from business certification obligations, especially in facing Indonesia towards becoming a Halal hub. The Halal Product Guarantee Organising Agency (BPJPH) of the Ministry of Religion (Kemenag) has carried out a Mandatory Halal October 2024 or WHO-2024 campaign aimed at educating business actors, stakeholders, and the public regarding the obligation of halal certification. The halal aspect of food is part of food safety, which supports our food security. Apart from that, the guarantee of halal products has a strong sense of urgency. The urgency of guaranteeing halal products has been recognised by the World Trade Forum (WTO). In 2030, the world's Muslim population is estimated to reach 26 percent, and the share of Asia-Pacific products to reach 62 percent. Now, halal has become a global lifestyle (Badan Pangan Nasional, 2022).

However, through surveys and interviews during Indonesia Small Medium Enterprises Association (ISMEA) member bazaar activities, several main problems faced by members were discovered. One of the main problems is the lack of understanding and awareness regarding the urgency of halal certification. Many members do not understand the importance of halal certification and consider the process complicated. Some members think that halal certification does not affect sales. Apart from halal certification, ISMEA members also face problems in obtaining Business Identification Numbers (NIB), Home Industry Food (PIRT), and the Food and Drug Supervisory Agency (BPOM).

Apart from halal certification, MSMEs must have a distribution permit for processed food from BPOM as regulated in Article 34, paragraph 1. "Every processed food produced domestically or imported for trade in retail packaging before being distributed is required to have a distribution permit, except for certain processed foods produced by the home industry." MSMEs that have certification according to national food standards can be competitive with foreign products. MSMEs that can compete can help improve the Indonesian economy.

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According to the World Bank, Indonesia's source of livelihood is highly dependent on the MSME sector. Overall, the MSME sector is estimated to contribute more than 50% of GDP (mostly in the trade and agricultural sectors) and around 10% of exports (BPS, 2023). On the other hand, the Green and Blue Economy movements are starting to influence competition for MSME products due to the entry of imported products that are more environmentally friendly. It is time for MSMEs to improve themselves so that they begin to know how to produce and market their products in line with the Green and Blue Economy (Pradani et.al., 2023). In this global market era, MSMEs are faced with the challenge of product certification and adopting environmentally friendly production practices, or green/blue economy; however, MSMEs still face obstacles in changing conventional production patterns to become more sustainable. The halal production process is close to production and cares for consumers and the environment, such as packaging, processing production waste, and marketing (Warto & Samsuri, 2020). Certification training as well as environmentally friendly and sustainable production and marketing training are one package that answers the needs of MSMEs facing the global market.

METHODS

A qualitative method (Creswell & Poth, 2016) for identifying each MSME's challenges with certification and environmentally friendly production and management as the foundation for developing a training and mentorship program. Creswell divides case studies into three categories based on the study objective: single-case instrumental, multiple-case, and intrinsic case studies. The author used the intrinsic-case technique, which entails reviewing several cases to uncover trends or establish parallels. What are their perspectives on food safety, as well as attitudes and behaviors concerning the establishment of food safety policies among corporate actors? And how does training affect the competency of its participants? This study presents a paradigm for implementing green economy-based technical innovation, specifically zero waste, environmental friendliness, and energy efficiency.

This model was launched at thirty MSMEs, and this model is an implementation of a food safety risk management program. The technique for obtaining data was carried out by observation, interviews, and collecting business documents from MSMEs as informants. Resource persons and training technicians are also informants. Additional secondary data to support field data collection.

RESULT AND DISCUSSION

There are still many Indonesian people who are not aware of the high food safety problem in Indonesia. The Food and Drug Supervisory Agency (BPOM) stated that during 2017-2021, there were 281 cases of extraordinary food poisoning, which resulted in around 21,300 people being exposed, 10,300 people getting sick, and 24 people dying. Interestingly, the majority of food poisoning cases occur due to improper cooking at home. Cases of food poisoning are caused by food being contaminated by dangerous microbes or chemicals. Apart from that, food can also be a route for disease transmission, so you need to pay attention to its safety, even when you cook your own food at home. Food safety is useful for ensuring that the food consumed remains safe and does not endanger health. There are still many business actors who have not implemented good food processing principles, especially in the small-scale and household food industry. BPOM stated that around 57% of food production facilities do not meet the requirements that have been set, so that food safety cases have increased. Another problem that needs attention is the lack of consumer awareness regarding food safety. Most consumers do not pay attention to the safety of the food they consume, so producers tend to ignore safety aspects for financial gain.

To ensure optimal food quality, it is essential to consider factors related to food quality assurance and safety. These regulations have evolved significantly to address the demands from pre-harvest to post-harvest stages of food production. In Indonesia, a standardized system governs food safety assurance, spanning the

production process through to consumer delivery, as outlined in the ISO-9000 about Quality Management Program, Good Manufacturing Practices (GMP) and HACCP (Hazard Analysis Critical Control Point) regulated by BPOM (Indonesian Food and Drug Authority). This framework defines the standards for food production practices. Currently, HACCP is recognized globally as one of the most efficient and effective systems for managing food safety. HACCP regulation is a management system in which food safety is addressed through the analysis and control of biological, chemical, and physical hazards from raw material production, procurement and handling, to manufacturing, distribution and consumption of the finished product (US-FDA, 2022).

The main goal of the developed food safety policy is to ensure a high level of human health protection in the food sector. With regard to food safety, an integrated farm-to-table approach is implemented, covering all sectors of the food chain. The implementation of food safety policies in Indonesia for MSMEs is circumvented by prioritizing halal certification in the form of self-declaration. The certification process is subsidized by the government in addition to animal slaughter products and those containing food additives. MSME entrepreneurs cannot meet the standard certification costs of the Food and Drug Supervisory Agency (BPOM). However, if studied in Islamic jurisprudence, the halal process for a product has actually gone through not only a halal process, including having to be processed in a Thoyyib (clean) manner and several other provisions relating to the obligation to protect the source of life and human life.

Food Safety Phenomenon in Indonesia

There are still many business actors who have not implemented good food processing principles, especially in the small-scale and household food industry. BPOM stated that around 57% of food production facilities do not meet the requirements that have been set so that food safety cases have increased. The condition of production facilities in the household food industry is also more worrying. In 2007, as many as 76% of the total facilities did not meet the requirements. This condition is reflected in the rejection of export food products by the US-FDA. Data on food poisoning and foodborne illness also shows that food processing in the food industry still does not meet food safety standards.

Microbial contamination due to poor hygiene and sanitation conditions is a serious problem in food safety in Indonesia. One of the main causes is the low application of hygiene and sanitation principles in the food production and handling process. The quality of food products depends on cleanliness throughout the entire production chain, from the preparation of raw materials to the moment the final product reaches the consumer, if food manufacturers can maintain their hygiene during the process, problems like foodborne illness and food poisoning may occur. The majority of foodborne illnesses are caused by harmful bacteria and viruses. In some cases, parasites and chemicals were found to be the cause of foodborne illnesses (Cole et al., 2013). According to U.S. Department of Health and Human Services, National Institutes of Health (2012), types of bacteria cause foodborne illnesses. For examples; Salmonella, found in raw and undercooked meat, poultry, dairy products, and seafood (1); Campylobacter jejuni, found in raw or undercooked chicken and unpasteurized milk (2); Shigella, a bacterium spread from cross contamination between humans. These bacteria are present in the stools or utensils of people who become the carrier. Worker should have sanitize and clean their bodyparts thoroughly to prevent the cross contamination when handling the food (3). Microbiological contamination also playing part in water that is used, water contaminated with infected stools or came from poor hygiene watersources can also contaminate food in process making. Some of the microbes are; Escherichia coli O157:H7 is the strain that causes the most severe illness cause of Shiga toxins. Common sources of E.coli O157:H7 were usually found in raw food materials that is cross contaminated by water, include raw or undercooked meat, unpasteurized fruit juices and milk (1); Listeria monocytogenes, which has been found in raw and undercooked meat, unpasteurized milk, soft cheeses, and ready-to-eat deli meats and hot dogs (2); Lastly is Vibrio, a mcrobes that found in contaminate fish alongside Clostridium botulinum, many cases reported that C. botulinum were found and contaminate improper canned foods (3). Not only from poor workers, water, and raw materials hygiene. Place that is used for work should be in aceptic and sanitized

thoroughly. Many cases reported that pests like rats or coackroaches might appear when a production room were not sanitize thoroughly. This condition might become a problem because pests acted as pathogens vector. This conditions alone were allowing food manufacturers or workers to following basics criteria of room sanitizing.

On the other hand, chemical contamination is also a concern in food safety in Indonesia. Raw materials that have been contaminated with dangerous substances make food unsafe for consumption. Raw material contamination can occur due to various factors, such as the use of pesticides, chemical fertilizers, or other dangerous chemicals that do not meet standards or are used excessively. Dangerous chemicals contained in food can cause various health problems, ranging from digestive disorders to more serious organ damage. Dangerous substances that enter the body over a long period of time or in large quantities can cause lasting negative impacts on human health. The use of dangerous chemicals that do not meet standards or are used excessively might become a poison to humans body. One of the serious threats to food safety is the misuse of hazardous ingredients in food. Some manufacturers do not comply with the maximum permitted limits for the use of hazardous substances to improve the quality or durability of their products. This step is taken for financial gain without paying attention to the negative impact it has on consumers who consume the product. Abuse of dangerous ingredients can take the form of adding dangerous chemicals, using excessive preservatives, or even mixing ingredients that are not suitable for consumption into food products. Practices like these threaten consumers' health and can cause serious health problems, especially if carried out continuously and undetected.

Food additives (BTP = Bahan Tambahan Pangan) are substances added to food to improve the taste, texture, or appearance of the product. The use of BTP itself is not a problem as long as it is used within the maximum permitted limits and has been approved by the food regulatory authority. However, problems arise when food producers use BTP excessively or exceed predetermined limits. Excessive use of BTP can cause health problems for consumers, especially if the BTP has the potential to be dangerous in large quantities. Some BTPs can cause allergic reactions or digestive problems in some people. Apart from that, the use of BTP that exceeds the limit can also damage the nutritional value and quality of food, thereby reducing the benefits that should be obtained from consuming this food. In 2024, has been reported by Osada, that allergic response from a patient with type-1 allergic caused by additives (in this case is MSG) could showing oral symptoms like sore throat, painful tongue, itchy palate, and buccal mucosal swelling and bleeding after consuming 31 MSG snack sticks equal to 1.5 g each. Other case were reported by (Sellem et al., 2024), that additives emulsifiers in foods, were likely would increase healths problems such as alterations to gut microbiota and increased inflammation, were microbiota dysbiosis and chronic inflammation may potentially lead to higher risks of gut diseases, even chronic disease like prostates and breast cancers.

Some food manufacturers even use textile dyes for food and beverage products for economic considerations without thinking about the negative impact on health. Limited information held by consumers is also a problem. Many consumers find it difficult to collect and process information about the food they consume. As a result, they find it difficult to avoid food products that are unsafe for their health. The price factor also influences consumer choices, especially for the economically weak, who prioritize cheap prices over food quality and safety. The condition of production facilities in the household food industry is also more worrying. In 2007, as many as 76% of the total facilities did not meet the requirements. This condition is reflected in the rejection of export food products by the US-FDA. Data on food poisoning also shows that food processing in the food industry still does not meet food safety standards. Dangerous chemicals contained in food can cause various health problems, ranging from digestive disorders to more serious organ damage. Dangerous substances that enter the body over a long period of time or in large quantities can cause lasting negative impacts on human health.

Table. 1 Poisoning Identification Results 2014

No.	Causative factor	2014			
		January-March	April-June	July-September	October-December
1	Food	29	43	25	38
2	Environmental Pollutant	6	5	4	6
3	Nature's Poison	2	3	3	7
4	A mixture	1	2	4	2
5	Pesticide	0	3	1	2
	Total	38	56	37	55

Source: Rhomadhoni, et al. (2018)

Table. 2 Poisoning Identification Results 2015

No.	Causative factor	2015			
		January-March	April-June	July-September	October-December
1	Food	24	50	25	26
2	Environmental Pollutant	4	4	5	3
3	Nature's Poison	3	2	1	4
4	Pesticide	0	0	1	0
5	Food Supplements	0	0	0	1
	Total	31	56	32	34

Source: Rhomadhoni, et al. (2018)

Green Economy: Environmentally Friendly, Zero Waste and Recycling

Various concepts from the green economy can provide support for reducing waste in Indonesia. For example, when you can utilize a variety of renewable energy, gas emissions can be reduced. Furthermore, waste from these emissions can be reduced significantly. This will make the air cooler and fresher than using other types of energy that produce carbon emissions. This concept can be applied in various aspects of life so that Indonesia can become a country with less waste. This can have a good impact on the health of society and future generations. With an environment that is clean from waste and pollution, various diseases can be prevented. It turns out that the benefits of a green economy can be seen from various aspects of life, so, naturally, many countries are aggressively implementing this as much as possible. An empirical investigation of the impact of the green economy on food security in 35 Sub-Saharan African countries for the period 2001–2015 provides evidence that green economy indicators have a controversial impact on food security (food availability and the proportion of undernourished people). Indeed, the results show that biofuels contribute to decreasing food security in Sub-Saharan African countries, while renewable energy increases food security. Carbon dioxide emissions have no impact on food security. The results are robust to alternative robustness checks, such as the two-step Generalized Method of Moments (GMM) system (Kinda, 2021).

The implementation of green economy policies that is most feasible for SMEs shortly is energy savings, across various technologies, whether in production, processing, or packaging. Several types of technology can be used in the processing of food production waste, namely through recycling, zero waste, and using environmentally friendly raw materials. In general, reduce the use of chemical food additives. Currently, Indonesian SMEs are encouraged to use natural ingredients that are available and grow in the Indonesian environment, such as spices, as well as simple technologies inherited from their ancestors to store and preserve food. For example, by freezing at a certain temperature. This method is usually performed using a freezer. This technology is similar to heating to eliminate bacteria, for example with fire or the sun, which has now been converted into retort technology. Technology that extends shelf life also affects the

sustainability of the food supply chain, which has long been understood to heavily depend on the smoothness and speed of transportation (Rudiatin, 2023),(De et al., 2022).

Retorting is a method to extend the life of a product at room temperature without adding tools and without preservatives. With heat and pressure technology, it will kill bacteria that may be in the food. This retort technology is useful for killing bacteria in food so that the food lasts longer even without preservatives and preservation tools. However, remember, this retort technology is only an attempt to kill bacteria and inhibit spoilage, it does not mean that retort food or products can last forever. For those of you who are unfamiliar with this technology, products processed using retort technology are close to military consumption products, usually in the form of aluminium packaging, which is quite thick and has a long shelf life. Benefits of Food Retorts There are several benefits that you can experience by using this retort technology, such as increasing the shelf life of the product in a safe way, it can be sent anywhere without worrying about the product rotting; it provides ease of storage; and it also reduces waste because the packaging can be recycled. Food retort technology is an answer to consumers regarding the need for ready-to-eat food that does not change nutritional value, maintains taste, has no preservatives, and is safe. In some cases, there are types of food that use more spices, if produced using the retort technique, it adds to the taste, so it becomes more umami.

Retort to Expand Market Share Not only does it provide benefits to the product, the aim of a business actor using retort technology is to expand market reach. MSME players in the culinary sector are ready to reach a wider market, especially unique regional culinary delights. In this way, innovation in waste recycling technology and packaging technology extends the expiration period without adding preservatives, becoming a food safety method that is preventive, risk based with responsibility in the hands of the producer.

Figure 1. Organic Waste Process into Compost
Source: Authors (2024)

Figure 2. Retort Technology
Source: Authors (2024)

MSME's Problem Influencing Food Safety

Production Problems

The main problem faced by MSMEs related to production is the quality and availability of environmentally friendly raw materials (Rudiatin, 2023), (Surya et al., 2021). Many MSMEs face difficulties in obtaining raw materials that meet sustainability standards, such as recycled or organic materials. Apart from that, the use of conventional production technology which is still commonly used by MSMEs is another challenge that hinders steps towards a green economy (Suwandi et al., 2023). Limited knowledge and skills regarding the use of green technology or environmentally friendly technology is also a sub-problem that needs to be addressed in depth.

Management Problems

The main problem faced in business management is a lack of understanding of sustainable business management practices. Most MSMEs do not have an adequate understanding of energy management, waste management and sustainable production practices (Basit et al., 2024). As a result, MSMEs also face difficulties in marketing their environmentally friendly products to a wider market. Limited access to a market that understands and appreciates sustainable products is an additional sub-problem that needs a solution.

Marketing Problems

The main problem faced in marketing is not having halal certification and business permits. Currently, halal certification and business permits are important requirements for marketing products (Maliha & Devi, 2023). Having halal certification and business permits can increase consumer confidence and product sales. Apart from that, another problem in marketing is the lack of activity of target partners in promoting and marketing their members' products on social media.

CONCLUSION

Green economy-based technology innovation training influences the competency of training participants. The training method influences the knowledge and insight of the training participants, while the training material influences the skills and attitudes of the training participants. Research results show that this model is easier for MSMEs to understand and follow. The phenomenon of food safety risks in MSME products is eliminated, and the halal process for MSME products can also run. With this foundation, several solutions can be developed, namely:

Production Field Solutions: Environmentally Friendly

The solution to production issues for MSMEs involves collaborating with sustainability certification institutions to provide environmentally friendly raw materials and adopt green production technology. This not only ensures high-quality materials but also increases MSMEs' awareness of halal certification, NIB, and BPOM, boosting competitiveness and consumer confidence in products. Through education and mentoring, targeting that MSMEs can better understand and appreciate the urgency of these certifications, which will ultimately increase competitiveness and consumer confidence in products. Providing environmentally friendly raw materials, adopting green production technology, and certified products will form a strong foundation for the sustainability and growth of target partners.

Solutions in the Field of Business Management: Sustainable Business Management Training

MSMEs can improve their business management by implementing sustainable practices, such as energy, waste, and financial management. This training aims to reduce operational costs, increase productivity, and comply with green economy principles. By identifying potential markets and developing effective marketing strategies, MSMEs can take advantage of market trends and increase their competitiveness in local and international markets. This approach not only promotes sustainable practices but

also enhances their business operations. In addition, effective waste management will help MSMEs reduce negative impacts on the environment, make businesses more sustainable, and comply with green economy principles. To achieve this, a marketing consultant team can work with MSMEs to identify potential markets and develop effective marketing strategies. In this way, MSMEs are not only able to implement sustainable practices in their operations but can also take advantage of market trends that are increasingly moving towards environmentally friendly products, increasing their competitiveness in local and international markets.

Marketing Solutions: Assistance with MSME Partner Certification

In order to increase market access, the Partner MSME Certification Assistance Solution program will facilitate MSMEs in obtaining the necessary halal certification and business permits through several structured and measurable steps. The first step involves educating MSMEs about the importance of halal certification and business permits through workshops and seminars, highlighting their benefits in enhancing competitiveness and consumer confidence, as well as their positive impact on sales and expansion into new markets.

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REFERENCES

Aniroh, K. (2014). Risk Management Learning in Language and Cultural Skills for International Program Participants. *LiNGUA: Journal of Language and Literature Science*, *9*(2). https://doi.org/10.18860/ling.v9i2.2553

Aziz, A. (2020). Duties and Authorities of the Food and Drug Supervisory Agency (BPOM) in the Context of Consumer Protection. *Al-Qanun: Journal of Islamic Legal Thought and Reform*, *23*(1), 193–214. https://doi.org/10.15642/alqanun.2020.23.1.193-214

Badan Pangan Nasional. (n.d.). *Ketahanan Pangan dan Industri Halal di Indonesia*. 29 September, 2022. Retrieved October 1, 2024, from https://badanpangan.go.id/blog/post/ketahanan-pangan-dan-industri-halal-di-indonesia

Basit, S. A., Gharleghi, B., Batool, K., Hassan, S. S., Jahanshahi, A. A., & Kliem, M. E. (2024). Review of enablers and barriers of sustainable business practices in SMEs. *Journal of Economy and Technology*, *2*(March), 79–94. https://doi.org/10.1016/j.ject.2024.03.005

Cole, D., Gould, L. H., Hall, A. J., Herman, K., Vieira, A. R., Walsh, K. A., & Williams, I. T. (2013).

Creswell, W. J. (1999). Second Edition: Qualitive Inquiry & Research Design Choosing Among Five Approaches. In *Public Administration* (Vol. 77, Issue 4, pp. 731–751). University of Nebraska, Lincoln. https://doi.org/10.1111/1467-9299.00177

De, A., Gorton, M., Hubbard, C., & Aditjandra, P. (2022). Optimization model for sustainable food supply chains: An application to Norwegian salmon. *Transportation Research Part E: Logistics and Transportation Review*, 161(February), 102723. https://doi.org/10.1016/j.tre.2022.102723

Denhardt, J. V, & Denhardt, R. B. (2015). *The new public service: Serving, not steering*. Routledge.

Dharma, A. A. S. (2022). New Public Service Sebagai Paradigma Administrasi Publik Pengawasan Obat dan Makanan. *Eruditio: Indonesia Journal of Food and Drug Safety, 3*(1), 29–37.

Iriani Putri, D., Meisanti, M., & Sukrianto, S. (2023). Pengaruh Pelatihan Pertanian Organik The Learning Farm Indonesia terhadap Kompetensi Bertani Generasi Z. *Jurnal Agribisnis Indonesia*, *11*(2), 236–246. https://doi.org/10.29244/jai.2023.11.2.236-246

Kinda, S. R. (2021). Does the green economy really foster food security in Sub-Saharan Africa? *Cogent Economics & Finance, 9*(1), 1921911

Maliha, H., & Devi, A. (2023). Halal Certification Management in Indonesia. *Management and Sustainability*, *2*(1). https://doi.org/10.58968/ms.v2i1.327

Moore, G. S., & Bell, K. A. (2018). Foodborne Illness. *Living with the Earth*, *17*(1), 299–344. https://doi.org/10.1201/9780429031809-8

Newslow, D. (2003). Hazard Analysis Critical Control Point (HACCP). In *Food Safety Handbook* (pp. 363–379). https://doi.org/10.1002/047172159x.ch20

Nursini, N. (2020). Micro, small, and medium enterprises (MSMEs) and poverty reduction: empirical evidence from Indonesia. *Development Studies Research*, *7*(1), 153–166. https://doi.org/10.1080/21665095.2020.1823238

Osada, R., Oshikata, C., Kurihara, Y., Terada, K., Kodama, Y., Yamashita, Y., & Tsurikisawa, N. (2024). A Case of Type I Food Allergy Induced by Monosodium Glutamate. *Journal of Asthma and Allergy*, 161-165.

Pudyastuti, E., & Saputra, A. (2021). Efforts to increase the competitive advantage of micro, small and medium enterprises (MSMEs) in the city of Medan during the Covid-19 pandemic. *INOBIS: Indonesian Journal of Business Innovation and Management, 4*(3), 437-449.

Pradani, R. F. E., Amalia, L. E., Ismawati, H., & Holifah, I. (2023). Penerapan Konsep Green Economy Dalam Meningkatkan Pendapatan UMKM Tahu di Dusun Tahu Kabupaten Situbondo. *Jurnal Pendidikan Ekonomi (JUPE)*, *11*(1), 19–25. https://doi.org/10.26740/jupe.v11n1.p19-25

Rhomadhoni, M. N., Firdausi, N. J., & Herdiani, N. (2018). Tren kejadian keracunan makanan diberbagai wilayah di Indonesia tahun 2014 dan tahun 2015. *Medical Technology and Public Health Journal, 2*(1), 51–65.

Rudiatin E. (2023). The Culture Policy for MSME in Digital and Their Prospects. *BASKARA: Journal of Business and Entrepreneurship, 6*(1), 111–124.

Rudiatin, E., Murod, mun, Iriani Putri, D., & Siswanto, H. A. (2023). An Important Maritime and River Transportation Network to Sustain the Supply Chain in Indonesia'S Border. *JATI: Journal of Southeast Asian Studies, 28*(2), 38–59. https://doi.org/10.22452/jati.vol28no2.3

Rudiatin, E., Rahman, A., Equatora, M. A., & Sulhan. (2021). Woman Farmers as Entrepreneurs in the Sebatik-Nunukan Border, North Kalimantan Province. *Jurnal Ilmiah Peuradeun*, *9*(3), 639–660. https://doi.org/10.26811/peuradeun.v9i3.625

Sellem, L., Srour, B., Javaux, G., Chazelas, E., Chassaing, B., Viennois, E., Debras, C., Druesne-Pecollo, N., Esseddik, Y., Szabo de Edelenyi, F., Arnault, N., Agaësse, C., De Sa, A., Lutchia, R., Huybrechts, I., Scalbert, A., Pierre, F., Coumoul, X., Julia, C., Kesse-Guyot, E., … Touvier, M. (2024). Food additive emulsifiers and cancer risk: Results from the French prospective NutriNet-Santé cohort. *PLoS Medicine, 21*(2), e1004338. https://doi.org/10.1371/journal.pmed.1004338.

Surya, B., Menne, F., Sabhan, H., Suriani, S., Abubakar, H., & Idris, M. (2021). Economic growth, increasing productivity of SMEs, and open innovation. *Journal of Open Innovation: Technology, Market, and Complexity, 7*(1), 20.

Suwandi, A., Rahmalina, D., & Rudiatin, E. (2022). Peningkatan Daya Saing UMKM Produk Makanan Ringan melalui Diseminasi Teknologi. *SULUH: Journal Abdimas*, *4*(2), 138–147.

U.S. Department of Health and Human Services. (2012). www.digestive.niddk.nih.gov. Foodborne illness. NIH Publication No. 12–4730.

U.S. Food and Drugs Administration. (2022). https://www.fda.gov. Hazard Analysis Critical Control Point (HACCP).

Warto, W., & Samsuri, S. (2020). Sertifikasi Halal dan Implikasinya Bagi Bisnis Produk Halal di Indonesia. *Al Maal: Journal of Islamic Economics and Banking*, *2*(1), 98. https://doi.org/10.31000/almaal.v2i1.2803