

# Implementation of Standard Operating Procedures (SOP) in Improving Product Quality in Food Smes in Solok City

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This study aims to analyze the implementation of Standard Operating Procedures (SOPs) in improving product quality in food MSMEs in Solok City. The method used is a qualitative approach with data collection techniques in the form of observation, interviews, and documentation, which allows researchers to understand in depth how MSMEs implement SOPs in every stage of the production process, from raw material selection, processing, packaging, to product storage. The results of the study indicate that the implementation of SOPs has a significant impact on improving product quality, especially in terms of cleanliness, taste consistency, and presentation standards, resulting in more stable products and gaining consumer trust. Products produced by MSMEs in Solok City include cassava chips, fish dodol, typical Solok layer cake, and traditional drinks such as herbal medicine and local fruit syrup. Good implementation of SOPs also has an impact on increasing consumer satisfaction, expanding the market, and increasing trust in MSME products. However, the study found several obstacles, such as a lack of understanding among MSMEs regarding the importance of SOPs and limited human resources to implement procedures consistently. Therefore, ongoing training, outreach, and mentoring are needed so that MSMEs can implement SOPs optimally, so that product quality improves, consumers are more satisfied, and the development of MSME businesses in Solok City becomes more sustainable and competitive in local and regional markets.

**Keywords:** SOP, product quality, MSMEs

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## 1. Introduction

Micro, Small, and Medium Enterprises (MSMEs) play a crucial role in supporting the growth and stability of the national economy, particularly in the rapidly expanding food sector. MSMEs not only provide jobs for the community but also drive regional economies through the utilization of local resources and product innovation. In various regions across Indonesia, including Solok City, MSMEs in the food sector are developing as a leading sector capable of increasing community income and strengthening local economic resilience. However, despite this significant potential, MSMEs still face various challenges, particularly in maintaining consistent product quality.

MSMEs not only serve as job providers for the community but also serve as a driving force for the regional economy through the utilization of local resources and diverse product innovations. In various regions across Indonesia, including Solok City, the food MSME sector has developed into a leading sector capable of increasing community income and stimulating local economic activity. The existence of MSMEs also contributes to strengthening economic resilience, especially in facing global and national economic challenges. However, despite this significant potential, MSMEs still face various obstacles that can hinder business development, one of which is the difficulty in maintaining consistent product quality. Many MSMEs lack clear operational standards, so the production process often relies on individual experience and habits. This results in unstable product quality, both in terms of taste, cleanliness, and appearance. This condition

can affect consumer confidence and product competitiveness in the market. Therefore, appropriate efforts are needed to improve the quality and consistency of MSME products to ensure sustainable competition.

Product quality is a key factor in determining the success of a business, particularly in the food industry, which relies heavily on taste, hygiene, safety, and appearance. Consumers tend to choose products with consistent and reliable quality. Inconsistency in product quality can undermine consumer trust, ultimately leading to decreased customer loyalty. Many MSMEs still operate based on experience and habit without clear standards, resulting in poorly controlled production processes. This leads to variations in product quality, including taste, texture, and presentation.

To address these issues, a system capable of systematically and structuredly managing and controlling each stage of production is required. One approach is to implement Standard Operating Procedures (SOPs). SOPs are detailed and systematic work guidelines designed to regulate every operational activity within a business. SOPs aim to ensure that all processes comply with established standards, resulting in consistent, high-quality products. According to Heizer and Render (2015), SOPs are an essential tool in operational management, serving to maintain process consistency and improve work efficiency.

The implementation of SOPs in food MSMEs encompasses various important aspects, from raw material selection and processing, equipment use, to product presentation and distribution. With SOPs, each production stage has clear and measurable guidelines, thereby minimizing errors and reducing unwanted variations. Furthermore, SOPs also aid in monitoring and evaluation, as each activity can be compared against established standards. This enables businesses to make continuous improvements to enhance product quality.

Various studies have shown that implementing SOPs has a significant impact on improving product quality and business performance. Astutik et al. (2024) stated that implementing SOPs can reduce errors in the production process, resulting in more consistent, standardized products. By reducing errors, production efficiency also increases because time and resources are not wasted on repairing defective products. Furthermore, research by Yuwono et al. (2025) shows that SOPs have a positive effect on customer satisfaction. Consumers tend to feel more satisfied when the products they consume are of consistent quality and meet expectations.

In Solok City, the development of food micro, small, and medium enterprises (MSMEs) has shown a fairly rapid trend in recent years. This growth is supported by the availability of local raw materials and increasing public interest in processed food products. Various types of food businesses, from snacks and traditional culinary delights to modern processed products, continue to emerge and compete in the market. However, this growth has not been fully accompanied by consistent improvements in product quality. Many MSMEs still lack clear operational standards for running their businesses.

The main problem faced by MSMEs in Solok City is a lack of understanding of the importance of SOPs in the production process. Some business owners still believe that SOPs are only necessary for large companies, so they don't feel the need to implement them. Furthermore, limited human resources also hinder the development and implementation of SOPs. Many MSMEs lack a workforce with adequate knowledge and skills in operational management. This results in suboptimal SOP implementation.

In addition to internal factors, limited access to training and mentoring also poses a barrier for MSMEs. Not all businesses have the opportunity to receive education on the importance of standardization in production. However, with appropriate training and mentoring, MSMEs can understand the benefits of SOPs and how to implement them effectively in their business activities. Support from the government and relevant institutions is essential to increase the capacity of MSMEs in operational management.

Implementing sound SOPs not only improves product quality but also enhances business competitiveness. In an increasingly competitive market, MSMEs are required to produce products that are not only delicious but also safe, hygienic, and consistent. With SOPs, businesses can ensure that every product meets established quality standards. This will increase consumer trust and strengthen MSMEs' position in the market.

Furthermore, SOPs also play a role in increasing business efficiency and productivity. Clear work procedures optimize the time and effort required for the production process. This allows businesses to increase production capacity without sacrificing quality. In the long term, implementing SOPs can help MSMEs grow and expand their businesses into wider markets, both regionally and nationally.

Therefore, this research is crucial to analyze the role of SOP implementation in improving product quality in food MSMEs in Solok City. This research is expected to provide a comprehensive overview of the benefits of SOPs and the challenges faced in their implementation. Furthermore, the results can inform policymaking to support MSME development.

Through ongoing training, outreach, and mentoring, it is hoped that MSMEs will better understand the importance of SOPs and be able to implement them consistently. Local governments, educational institutions, and related organizations can play an active role in providing support to MSMEs. Through effective collaboration, SOP implementation can be optimized, thereby improving product quality and MSME competitiveness.

Ultimately, the effective implementation of SOPs will have a positive impact not only on businesses but also on consumers and the regional economy as a whole. MSMEs that consistently maintain product quality will more easily gain market trust and grow sustainably. Therefore, strengthening SOP implementation is a strategic step in driving the progress of food MSMEs in Solok City and improving community welfare.

## **2. Method**

### **Types of research**

This research uses a descriptive qualitative approach aimed at gaining a deeper understanding of the phenomena occurring in the field, particularly those related to the implementation of Standard Operating Procedures (SOPs) in food MSMEs. The qualitative approach was chosen because it is able to depict real conditions holistically and contextually from the perspective of business actors. Descriptive research focuses on presenting facts discovered during the research process without manipulating the variables studied. With this method, researchers can explore more detailed information regarding SOP implementation practices, obstacles encountered, and their impact on product quality. The data obtained consist of words, statements, and information from informants, which are then analyzed to generate a comprehensive understanding. This approach also allows for direct interaction between researchers and research subjects, resulting in more accurate and relevant data. Therefore, the descriptive qualitative method is considered appropriate for examining the problems in this research in depth and comprehensively.

### **Research Location**

This research was conducted on food MSMEs in Solok City. This location was chosen based on the consideration that Solok City is one of the areas experiencing quite rapid development of food MSMEs. Various types of food businesses are developing in this region, ranging from traditional foods to modern processed products. However, amidst this development, there are still issues related to the consistency of product quality produced by business actors. This makes Solok City a relevant location to study the

implementation of Standard Operating Procedures (SOPs) in improving product quality. In addition, location accessibility and the availability of informants were also supporting factors in the selection of the research location. The research focused on several MSMEs that are already operating and have regular production activities. By selecting this location, researchers are expected to obtain data in accordance with the research objectives and be able to provide a realistic picture of the condition of food MSMEs in the area.

### **Data collection technique**

Data collection techniques in this study were conducted through three main methods: observation, interviews, and documentation. Observations were conducted by directly observing the production process in food MSMEs to determine how SOPs are implemented in daily operations. Through observation, researchers were able to clearly see field conditions, including work procedures, tool use, and the cleanliness of the production environment. Furthermore, in-depth interviews were conducted with MSME actors as key informants to obtain information regarding their understanding of SOPs, experiences in implementing them, and challenges encountered. Interviews were conducted semi-structured so that researchers maintained a guideline for questions but remained flexible in gathering information. Documentation techniques were used to supplement the research data, such as photographs of production activities, business records, and SOP-related documents, if available. These three techniques were used simultaneously to obtain valid, complete, and reliable data.

### **Data Analysis Techniques**

The data analysis technique in this study was carried out in stages through three main steps: data reduction, data presentation, and conclusion drawing. Data reduction is the process of selecting, simplifying, and grouping data obtained from the field to focus more on the research problem. At this stage, the researcher filtered information relevant to the research objectives, specifically regarding the implementation of Standard Operating Procedures (SOPs) in food MSMEs. Next, the data was presented by organizing the data into a descriptive narrative for easy understanding and analysis. This data presentation aims to provide a systematic overview of the research findings. The final stage is conclusion drawing, which is the process of formulating meaning from the analyzed data. The conclusions drawn are provisional and can evolve as more data is collected. By using this analysis technique, it is hoped that the research results will provide a clear, accurate, and in-depth understanding of the role of SOPs in improving the quality of food MSME products.

## **3. Results and Discussion**

### **Implementation of SOPs in MSMEs**

Hasil penelitian menunjukkan bahwa sebagian pelaku UMKM makanan di Kota Solok telah mulai menerapkan Standar Operasional Prosedur (SOP), meskipun masih dalam bentuk yang sederhana dan belum sepenuhnya terstruktur. Penerapan SOP yang dilakukan umumnya terbatas pada prosedur dasar, seperti menjaga kebersihan tempat produksi, penggunaan peralatan yang higienis, serta pengolahan makanan yang dilakukan secara lebih teratur. Beberapa pelaku usaha, misalnya yang memproduksi keripik singkong, dodol ikan, kue lapis khas Solok, dan minuman tradisional seperti jamu serta sirup buah lokal, telah memiliki kesadaran untuk mencuci bahan baku sebelum diolah, memastikan kebersihan alat produksi, serta menyajikan produk dalam kondisi yang layak konsumsi. Praktik-praktik ini menunjukkan adanya upaya awal dalam menerapkan standar kualitas, meskipun belum didukung oleh sistem formal dan terdokumentasi. SOP yang diterapkan masih bersifat informal dan lebih banyak bergantung pada kebiasaan serta pengalaman individu, sehingga belum memiliki standar baku yang dapat dijadikan acuan bersama dalam proses produksi.

Di sisi lain, penerapan SOP pada UMKM makanan di Kota Solok masih menghadapi permasalahan dalam hal konsistensi. Misalnya, saat jumlah pesanan meningkat, produsen keripik singkong atau dodol ikan cenderung mengabaikan beberapa prosedur yang telah diterapkan sebelumnya, sehingga kualitas rasa atau tekstur produk bisa berbeda. Hal ini menunjukkan bahwa SOP belum melekat sebagai bagian dari sistem kerja, melainkan masih bersifat situasional. Kurangnya dokumentasi SOP menjadi faktor utama ketidakkonsistenan ini; tanpa panduan tertulis, proses kerja menjadi bergantung pada ingatan dan kebiasaan, yang berpotensi menimbulkan variasi dalam produk seperti kue lapis atau sirup buah lokal. Oleh karena itu, diperlukan penyusunan SOP yang sistematis, sederhana, dan mudah dipahami, sehingga produksi keripik singkong, dodol ikan, kue lapis, dan minuman tradisional dapat berjalan seragam, efisien, dan menjaga kualitas produk secara berkelanjutan, meningkatkan daya saing dan kepercayaan konsumen.



Singkong



Dodol Ikan



Kue Lapis



Jamu Tradisional

### Pengaruh SOP terhadap Kualitas Produk

The implementation of Standard Operating Procedures (SOPs) has been proven to significantly improve product quality in food MSMEs in Solok City. One of the most noticeable impacts is the increased consistency of taste in products such as cassava chips, fish dodol, Solok layer cake, and traditional drinks such as herbal drinks and local fruit syrups. With SOPs, each production stage is carried out according to the same measurements, procedures, and work sequence, resulting in a more stable food taste and compliance with established standards. This consistency of taste is crucial because it maintains consumer trust and increases customer loyalty. Consumers who are satisfied with consistent quality tend to become repeat customers and recommend products to others, which helps expand the market and increase business turnover. In other words, SOPs not only serve as internal guidelines but also have a direct impact on business sustainability.

In addition to improving taste consistency, SOPs also maintain product cleanliness and safety. Procedures governing the cleanliness of raw materials, production equipment, and the work environment make cassava chips, fish dodol, and traditional drinks more hygienic and safe for consumption. Maintaining cleanliness enhances the image of MSMEs in the eyes of consumers, providing added value amidst market competition. Implementing SOPs also increases production efficiency, minimizes errors, optimizes raw material use, and utilizes production time effectively. This helps MSMEs manage limited resources, resulting in more controlled and productive operations.

The research findings align with those of Yuwono et al. (2025), who stated that SOPs significantly impact product quality. Furthermore, SOPs improve employee discipline; they are more focused, understand their responsibilities, and are able to perform tasks according to standards. Thus, SOPs not only improve the quality of cassava chips, fish dodol, layered cakes, and traditional drinks but also improve the overall work system, supporting the growth and sustainability of MSMEs in Solok City.

## Obstacles to SOP Implementation

Although implementing SOPs offers many benefits, this study identified several obstacles faced by MSMEs in implementing them. One of the main obstacles is a lack of understanding among business owners regarding the importance of SOPs in improving product quality, including cassava chips, fish dodol (a type of dodol fish), Solok layer cake, and traditional drinks such as herbal medicine and local fruit syrup. Many MSMEs still believe that SOPs are only necessary for large companies, so they do not feel the need to develop them formally. As a result, SOP implementation is less than optimal and unstructured, making it difficult to maintain consistency in taste, cleanliness, and product presentation standards.

Furthermore, limited human resources are a significant obstacle. Some MSMEs in Solok City are independently managed or have limited staff, making it difficult to allocate tasks according to established procedures. The lack of employees with knowledge and skills in operational management sometimes results in the processing of fish dodol (a type of sweet and savory cake) or layered cake (a type of cake) not following ideal procedures, which can affect the final product quality.

The lack of training and mentoring from relevant parties is also a hindering factor. Without adequate education, MSMEs struggle to understand how to effectively develop and implement SOPs, whether in the production process of cassava chips, packaging local fruit syrup, or serving traditional herbal medicine. Maerani and Ghaffar (2024) stated that inconsistencies in SOP implementation can lead to a decline in product quality. Therefore, support in the form of training, outreach, and ongoing mentoring is needed so that MSMEs can optimally implement SOPs and produce high-quality, safe, and consistent products for consumers.

## 4. Conclusion

The implementation of Standard Operating Procedures (SOPs) plays a crucial role in improving product quality in food MSMEs in Solok City, including cassava chips, fish dodol, Solok layer cake, and traditional beverages such as herbal drinks and local fruit syrups. SOPs have been proven to help businesses create a more structured and directed production process, resulting in consistent taste, appearance, and quality. For example, with SOPs, cassava chips are always fried at the same time and temperature, fish dodol is processed evenly, layer cakes are arranged with a consistent texture, and local fruit syrups and herbal drinks are prepared in precise proportions, resulting in more stable product quality from batch to batch. Furthermore, the implementation of SOPs increases production efficiency because each stage is carried out systematically, allowing for optimal use of time, energy, and raw materials, and minimizing production errors.

SOPs also play a crucial role in maintaining product cleanliness and safety. Standards governing the cleanliness of raw materials, equipment, and the production environment make chips, dodol (sweet potato fritters), layered cakes, and traditional drinks more hygienic and safe for consumption, positively impacting consumer trust and satisfaction. However, the implementation of SOPs by MSMEs in Solok City still faces challenges, such as a lack of understanding among business actors, limited human resources, and minimal training and mentoring. Therefore, ongoing support from various parties is needed to ensure optimal SOP implementation and maximize benefits for product quality and the growth of MSMEs in Solok City.

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