

Hygiene and Sanitation Analysis in Ibu Wanti Canteen Faculty of Business Economics Mulawarman University

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Abstract

Sanitary hygiene is an effort to control risk factors for food contamination, whether from food ingredients, people, places, or equipment, so it is safe for consumption. Based on the initial survey in Mrs. Wanti's canteen, poor food processing processes were still found, such as needing to be cleaner and strewn about the kitchen. Sanitation facilities that do not meet health requirements include waste disposal, garbage collection, and dirty eating places. So, an analysis was carried out to implement sanitation hygiene in the Ibu Wanti canteen, Faculty of Business Economics, Mulawarman University. The method used is PAR (Participation Action Research). The analysis results from the first visit to the location showed that the hygiene and sanitation conditions in the canteen were poor and did not meet the requirements for A1 catering services, with a physical feasibility test score of 60 out of 70 or 86%. After the assistance was carried out, the physical hygiene and sanitation feasibility score of Ibu Wanti Canteen increased to 65 out of 70 or 93%. Thus, the canteen created a cleaner, healthier environment that complies with applicable hygiene standards.

Keywords: Food Stalls, Hygiene and Sanitation, MSMEs, Canteen

INTRODUCTION

Food is essential for human health, and it is important to ensure its cleanliness and safety to prevent foodborne illnesses (Sundari & Dhyanaputri, 2022; Ningsih, 2014). Studies show that many foodborne illnesses occur due to mishandling during food preparation, whether at home, in catering services, canteens, hospitals, or at events (Dewi, 2021). Therefore, proper food processing is necessary to prevent contamination, eliminate microorganisms and harmful chemicals, and preserve the nutritional value of food (Marwanto, 2021).

In order to obtain healthy food, it is necessary to supervise hygiene and sanitation. According to the Indonesian Minister of Health Regulation No. 1096/Menkes/Per/VI/2011, hygiene and sanitation involve efforts to control risk factors that may lead to food contamination, whether from food ingredients, people, places, or equipment, in order to ensure safety for consumption (Kemenkes RI, 2011). This effort is particularly aimed at public facilities such as

restaurants, eateries, canteens, and street vendors, given that food is a potential medium for disease transmission (Alfan, 2019). These efforts are mainly aimed at public facilities such as restaurants, eateries, canteens, and street vendors, given that food is a potential medium for disease transmission (Alfan, 2019). Canteens are one type of micro, small and medium enterprises (MSME) that provides food and beverages. MSMEs are crucial in enhancing and growing the community's economy (Farisi *et al.*, 2022). Based on the Republic of Indonesia Law Number 20 of 2008, MSMEs are productive economic enterprises carried out by individuals or business entities that meet specific criteria (Rahmah *et al.*, 2022; Suci, 2017).

Catering services that serve the general public using home kitchens and are managed by families fall under category A1. According to Minister of Health Regulation Number 1096 of 2011, the hygiene requirements for A1 catering services

include the following: workers must be healthy and possess a doctor's certificate, must not suffer from infectious diseases, and all food processing activities must be protected from direct contact with the body. One of the A1 catering services at Mulawarman University is Ibu Wanti's canteen, an MSMEs that has been operating since 2020. It offers mixed rice, pecel rice, chicken soto rice, and light snacks and is located at Tanah Grogot Street No. 1, Mulawarman University Gunung Kelua Campus, Samarinda, within the Faculty of Economics and Business.

Maintaining cleanliness at the canteen is crucial for health. An initial survey of Ibu Wanti's canteen identified several poor food processing practices, such as a dirty kitchen and workers needing gloves and aprons (Suryansyah, 2018). Additionally, sanitation facilities like waste disposal and dining areas are required to meet health standards. Therefore, an analysis is needed to implement hygiene and sanitation practices at Ibu Wanti's canteen in the Faculty of Economics and Business at Mulawarman University.

MATERIAL AND METHOD

Tools And Materials

The program utilizes a laptop, a mobile phone, and writing instruments. The laptop and mobile phone are used for data collection, report creation, and activity documentation. Writing instruments are used for conducting physical feasibility tests regarding the hygiene and sanitation of food in catering services.

Research Design

The method for analyzing hygiene and sanitation involves Participatory Action Research (PAR), which strives to identify problems and provide solutions. PAR is a collaborative process that engages the community in conducting research to clarify issues and apply the gathered information to resolve these issues (Rahmat & Mirnawati, 2020). The primary aim of PAR is to drive positive change through research that involves action. The stages of this research are outlined in Figure 1.

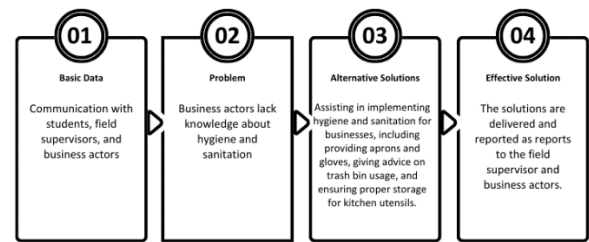


Figure 1. Diagram of Problem-Solving Approach

First Step

During this step, Community Service socialization was conducted by providing supplies and guidance to students and canteen owners. The field supervisor, lecturer, and the Samarinda City Health Office, East Kalimantan, presented this socialization to raise awareness about adequately implementing hygiene and sanitation per the relevant regulations.

Second Step

This stage involved visiting the business locations to assess the condition of the canteens through interviews and direct observations, particularly at the Ibu Wanti Canteen. This activity gathered data related to the implementation of hygiene and sanitation and helped in identifying the challenges faced by business owners. For instance, a catering business with poorly maintained facilities could aid in planning a more effective improvement program (Maidiana, 2021). The interview findings revealed that the business owners needed comprehensive understanding of the importance of hygiene and sanitation standards, and they required assistance in enhancing them. The subsequent step involved actively involving the business owners in implementing hygiene and sanitation principles at the canteen, including following cleaning processes according to standards. This direct involvement of business owners was crucial for the successful implementation of the proposed changes. The guidance, in accordance with the Regulation of the Minister of Health of the Republic of Indonesia Number 1096/MENKES/PER/VI/2011, ensured that food processing activities were safeguarded from direct contact with the body and utilized tools such as disposable gloves, food tongs,

spoons, and forks. Vendors were mandated to be neatly attired and wear aprons (Kemenkes RI, 2011). This hands-on approach facilitated the transfer of practical knowledge, leading to a cleaner, healthier canteen environment that complied with relevant hygiene standards

RESULT AND DISCUSSION

The first stage involves socialization and training for students, accompanying lecturers, and canteen owners, which took place on December 2 and 9, 2023, at the Prof. Ir. Rachmad Hernadi Building, Faculty of Agriculture, Mulawarman University. This socialization was delivered by lecturers from the Department of Agricultural Products and representatives from the Samarinda City Health Office, covering topics such as Food Safety, Waste Management, Hygiene and Sanitation, Training for Food Safety Counselors, Use of Food Additives, and Introduction to Halal Certification Preparation. The purpose of providing socialization related to the implementation of hygiene and sanitation for catering service operators is to enhance their knowledge about the importance of cleanliness and how to apply it according to standards, prevent foodborne illnesses due to unhygienic food, improve service quality, ensure compliance with government regulations, increase consumer trust, and support sustainable business development.



Figure 2. Socialization and Training



Figure 3. Ibu Wanti's Canteen

On December 8, 2023, a site survey was conducted to assess the feasibility of implementing hygiene and sanitation at Ibu Wanti's Canteen. Interviews, observations, and discussions were carried out as part of the assessment. The results of the physical feasibility test for food hygiene and sanitation in catering services revealed a score of 60 out of 70 (86%). As per the Indonesian Minister of Health Regulation No. 1096/Menkes/Per/VI/2011 for Category A1, business operators are required to attain a minimum score of 65 out of 70 (93%) (Kemenkes RI, 2011). These results indicate that the implementation of hygiene and sanitation at Ibu Wanti's Canteen does not yet meet the standards for A1 catering services (Table 1). The first observation indicated that the location, building, and facilities were adequate, with a clean environment, free from odors, good building construction, and well-maintained floors.

Table 1. Physical Suitability Results for Food Hygiene and Sanitation of Catering Services at Ibu Wanti Canteen.

No.	DESCRIPTION	SCORE	BEFORE	AFTER
LOCATION, BUILDING, FACILITIES				
1	Clean and tidy area, not muddy, and located at least 500 meters from fly breeding sites or waste disposal areas, with no foul or unpleasant odors from pollution sources.	1	1	1
2	The building construction is a robust, safe, well-maintained, clean building free from unnecessary items or waste materials.	1	1	1
3	Waterproof, flat, non-slip, crack-free, well-maintained flooring, and easy to clean.	1	1	1
4	The walls and ceilings are well-made, maintained, and free from dust (cobwebs).	1	1	1
5	The wall areas exposed to water splashes are coated with waterproof material up to a height of 2 (two) meters from the floor.	1	0	0
6	Doors and windows are well made and strong. They close automatically, open in both directions, and are installed with fly and odor barriers. The kitchen door opens outwards.	1	0	0
LIGHTING				
7	Lighting should be according to needs and should not create shadows. The light intensity on the work surface should be at least 10 FC.	1	1	1
VENTILATION				
8	The workspaces and equipment are equipped with good ventilation to ensure air circulation and prevent stuffiness.	1	1	1
CLEAN WATER				
9	Safe clean water source, sufficient quantity, and pressurized.	5	5	5
WASTE WATER				
10	Wastewater from the kitchen, bathroom, toilet, and rainwater drainage is discharged smoothly, properly, and does not cause waterlogging	1	1	1
HANDWASHING FACILITIES AND TOILET				
11	Sufficient quantity, soap is available, comfortable to use, and easy to clean.	3	3	3
WASTE DISPOSAL				
12	Efficient trash bins are available, covered, fly-, cockroach-, and rodent-proof, and lined with plastic bags that are permanently removed when full.	2	1	2
FOOD PROCESSING AREA				
13	Adequate floor space is provided for workers in the building and is separate from sleeping quarters or laundry facilities	1	1	1
14	The room is free of unnecessary items. (These items are stored neatly in the warehouse).	1	0	1
EMPLOYEE				
15	All employees must be free from contagious diseases such as skin diseases, boils, open wounds, and upper respiratory infections (URI).	5	5	5
16	Hands must always be washed clean, nails should be trimmed short, avoid wearing cosmetics, and maintain hygienic behavior.	5	4	5
17	Work clothes are clean, with short hair and a body free of jewelry.	1	0	1
FOOD				
18	Food sources, whole and undamaged.	5	5	5
19	Processed food ingredients are in their original packaging, registered, labeled, and have not expired.	1	1	1
FOOD PROTECTION				
20	Handling potentially hazardous foods at adequate temperatures, methods, and times during storage, preparation, serving, and transport of food and thawing frozen foods before cooking (thawing).	5	4	4
21	Handling of food that is potentially hazardous due to being uncovered or served again.	4	4	4
EATING AND COOKING UTENSILS				
22	Protection of eating and cooking utensils for cleaning, storage, usage, and maintenance.	2	1	2
23	Disposable eating and cooking utensils are not reused.	2	2	2
24	The washing process involves stages starting from cleaning food residues, soaking, washing, and rinsing.	5	5	5
25	Toxic substances or pesticides are stored separately in a safe, protected place, using clear labels or signs for identification.	5	4	4
26	Protection against insects, rats, pets, and other nuisance animals.	4	3	3
SPECIFIC CATEGORY A.1				
27	The food processing area is not used as a sleeping area	1	1	1
28	A single refrigerator is made available.	4	4	4
TOTAL		70	60	65

Source: Observation

Furthermore, the canteen was equipped with necessary amenities such as clean water, handwashing facilities, separate toilets from the food processing area, and a refrigerator, which are specific requirements for A1 catering services. However, issues were noted with the walls lacking waterproof coating, and the absence of an entrance door due to inadequate facilities. Additionally, it was observed that several A1 category criteria were not yet met, such as uncovered trash bins, items not stored in cabinets, the absence of an entrance door, and business operators not using gloves and aprons.

After the observation, the next step was to guide the business operators to improve the canteen's implementation of hygiene and sanitation. Adequate knowledge can increase awareness and hygiene practices, such as handwashing with soap before and after handling food (Rahmat & Mirnawati, 2020) (Ramadani *et al.*, 2017). The business operators or owners began implementing hygiene and sanitation practices to rectify handling processes that did not comply with regulations. However, some improvements could not be fully implemented due to the building facilities used, which were campus facilities, where some canteens at the Faculty of Economics and Business, Mulawarman University, did not have doors.

The business operators have made some improvements, including using aprons and gloves, covered trash bins, and storing kitchen utensils properly in cabinets to prevent dirt and contact with animals (Table 2). Ensuring good hygiene and sanitation can have positive impacts such as improving consumer health, promoting good hygiene behavior, and ensuring customer satisfaction in the food and restaurant sector (Putu *at al.*, 2023; Nina Noviasuti, 2021; Saputra, 2023). On the other hand, if hygiene and sanitation standards are not met, mishandled food can become a medium for disease transmission, with the risk of contamination by bacteria such as *Escherichia coli* and other pathogenic bacteria, causing diarrhea, poisoning, and even death (Hadi *et al.*, 2021; Annas *et al.*, 2021; Jiastuti, 2018). Furthermore, non-compliance with hygiene and sanitation standards can lead to a decline in

consumer trust in food products, negatively impacting sales and business reputation (Mathofani, 2022).

Table 2. Improvement of hygiene and sanitation implementation at Ibu Wanti's canteen

Before Guidance	After Guidance
 <p>Business operators do not use gloves and aprons.</p>	 <p>The business operators have started using gloves and aprons</p>
 <p>Open trash bin.</p>	 <p>Closed trash bin</p>
 <p>The furniture is not stored properly.</p>	 <p>The furniture is stored in a cabinet.</p>

Based on the analysis of hygiene and sanitation at Ibu Wanti's Canteen, which was conducted through the community service program, various identified issues were evaluated and improved. As a result, the implementation of hygiene and sanitation at Ibu Wanti's Canteen, which initially received a score of 60 out of 70 (86%), increased to 65 out of 70 (93%). This change indicates that Ibu Wanti's Canteen now meets the hygiene and sanitation standards of the A1 catering service category.

IMPACT OF ACTIVITIES

Business operators have not consistently implemented proper hygiene and sanitation measures before carrying out hygiene and sanitation practices. Community service initiatives that emphasize hygiene and sanitation in the cafeteria have had a positive impact. This impact ranges from increasing knowledge and implementing better sanitation practices to improving environmental conditions. Additionally, this initiative also influences business operators, impacting consumer trust.

CONCLUSION

The analysis of hygiene and sanitation during the physical feasibility test for A1 catering services at Ibu Wanti's Canteen revealed a score of 60 out of 70 (86%), indicating that the requirements for implementing hygiene and sanitation still need to be met. To address this, evaluation and guidance were provided to the business operators, with the aim of improving the application of hygiene and sanitation in the canteen. The business operators, who accepted and implemented the suggestions and feedback, demonstrated that this guidance successfully brought about positive changes. Following the guidance, the score increased to 65 out of 70 (93%), meeting the physical feasibility requirements. This improvement in hygiene and sanitation behavior can enhance consumer trust and ensure the production of safe food for consumption.

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