

The Management of Catering Services. The Environmental Insights in Medan City

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ABSTRACT

Food service providers (catering) in their operations produce a lot of waste when the food processing is carried out. Food processing is usually done through the kitchen supported by various sanitations.

This research is classified as descriptive research through qualitative and quantitative data with a population of 15 catering businesses and the entire population in the study was used as a sample. This study uses data collection methods / techniques in the form of documentation studies, interviews, observation and questionnaires. Data analysis uses inferential statistical data analysis.

The results showed that the management of food service providers in Medan City had not been maximally carried out especially on environmental management. Food management is not executed according to the procedures that have been specified especially Permenkes No. 1096/Menkes/Per/VI/2011 About Sanitasi Jasa Boga. So, it should be necessary to make comprehensive legislation and supervision periodically in ensuring the manager of the service providers feeding activities well, licensing and certification of food service providers need to be done strictly, Perform supervision periodically and scheduled, Certification of employees who work as food processors should be done objectively, Provide opportunities to workers on catering services in the following education and training in improving their professionalism and insight to optimize work activities undertaken.

Keywords: Management, Food Providers, Environmental Insights

I. INTRODUCTION

The increase in the number of restaurants, catering and restaurants is one of the impacts of increasing income and changing lifestyles of people

in Indonesia. The trend of instantaneous (fast), causing the food industry increasingly attracted by investors. Responding to the changing paradigm of society, it needs more serious attention from the government and stakeholders on various factors that can affect the food industry so that it can run well. One of the things that need to be considered is in terms of food safety in restaurants, catering and restaurants.

Food service providers (catering) become a new industry group that is rapidly developing, because the products (goods) produced are primary needs for people in the era of globalization and industrialization that wants practicality to get fast food. Food service providers (catering) have provided a contribution of 5.61% to Indonesia's Gross Domestic Product (GDP) in 2015 (Ministry of Industry, 2016).

states that the catering business comes from the word *to cater*, as in free translation, means that preparing and serving food and drinks to the public. Then the catering business is a component of conferences, congresses, conventions, events and meetings. Thus, the catering business can function as a social interaction in fulfilling the needs and social desires of the community.

II. The Environmentally Sound Food Processing

Environment is the surrounding condition that has an effect on the development and behavior of living things. Everything that is around humans that has an effect on the development of human life that is, both directly and indirectly, also the definition of environment (Supardi, 2009). In the Law of Republic of Indonesia No. 4 of 1982, concerning the Basic Provisions for Environmental Management and Law of Republic of Indonesia No. 32 of 2009, concerning Environmental Management, it was stated that, environment is a unity of space with all things, power, circumstances, and living things, including humans and their behavior, which has an effect on the nature itself, the survival of life and the welfare of humans and other

living things. Sriyanto (2009) states that the environment is the space occupied by a living thing together with other living things and non-living things. The number of all objects and conditions that exist in the space that we occupy that have an effect on our lives. All external biological and physical factors that directly affect human life, growth, development and reproduction. (McNaughton and Wolf in Supardi, 2009). All things, conditions, circumstances and influences contained in the space that we occupy and influence living things, including human life. According to Emil Salim, the definition of environment can be said to be quite broad. If the limitation is simplified, the environmental space is limited by factors that can be reached by humans, such as natural, political, economic and social factors. (Salim, 2017).

Based on the results of questionnaires on the business of managing food service providers in Medan City obtained data that can provide a specific description of the real conditions of catering business operational activities in carrying out its activities. In distributing questionnaires to respondents given as many as 31 items that are all related to the problem of food processing from input to output. The questionnaire was distributed to 60 employees in 15 catering businesses in Medan City who were sampled in the study. Based on the results of data analysis on the collected questionnaires, it can be stated as follows:

III. Analysis of Data Validity and Reliability Tests

The process of testing the validity of each instrument in the question item is carried out through the process of determining the correlation value of each question item by correlating each question item with the total score obtained from the sum in each question item. In calculating the validity test used the Pearson Product Moment formula, by analyzing it through the SPSS for Window program. Data validity testing is determined with a 95% confidence level, with a value of $df = n - 2$. The value of n in this study amounted to 60 employees from 15 catering businesses, so the provision of df value was reduced by 58. Then in determining the validity of each question item then a comparison was made with reference to the table of Product Moment r (see attachment), then obtained the value $r_{table} = 0.254$. The basis for decision making on the validity test in determining the validity of the questions that are not given to the respondent is determined by the following conditions:

- If $r_{count} > 0.254$, the questions are valid
- If $r_{count} < 0.254$, then the question items in the category are invalid

While the basis for decision making in reliability testing based on Croanbach Alpha value > 0.6 , the decision making can be stated as follows:

- If the coefficient value (Croanbach Alpha) > 0.6 then the instrument is declared reliable (reliable).
- If the reliability coefficient (Croanbach Alpha) is < 0.6 then the instrument is declared unrealistic.

Show respondents' responses to various questions given related to the management of food service providers (catering), especially in the activities of food processing. Responses given by respondents can certainly provide an overview of the real conditions of the management of food service providers in Medan.

In the first statement given to the respondent about not chatting or smoking while processing food, the majority of respondents gave answers agreeing with a percentage of 78.3%. This shows that when processing food while talking and smoking has a negative impact on the food hygiene produced.

In the second statement given to the respondent about not eating or chewing during food processing, the majority of respondents gave an agreed answer with a percentage of 80%. This shows that food processing activities should avoid other activities such as eating and chewing. Because the negative effects caused to food hygienicity is the occurrence of contamination from germs.

In the third statement given to the respondent about not wearing jewelry in carrying out the work, the majority of respondents gave answers agreeing with a percentage of 83.30%. This shows that the use of jewelry in food processing has a negative effect on the cleanliness of processed food. Because jewelry can be a gathering place for various bacteria and germs, so the transfer of germs can occur when the food processor works ...

In the fourth statement item given to the respondent about not using equipment and facilities that are not their designation. The majority of respondents gave answers agreeing with a percentage of 76.70%. Equipment is one of the media used in food processing, so the use of equipment must be in accordance with its function and designation in avoiding damage and sticking of bacteria to food. Separation of equipment use according to its

function, whether used for raw or cooked food aims to avoid cross-contamination of bacteria.

In the fifth question item given to respondents about always washing their hands or feet with soap before and after work, and after leaving the toilet. The majority of respondents gave answers agreeing with a percentage of 60%. Hand washing activities certainly have a positive effect on self-defense and food processed by the food presenter.

In the sixth question item given to respondents about always wearing work clothes and protective clothing properly. The majority of respondents gave very agree answers with a percentage of 60%. The use of work clothing and protective clothing must be in accordance with the needs in carrying out work activities.

The seventh question item given to respondents about work clothes must always be clean and used only when working. The majority of respondents gave answers agreeing with a percentage of 51.70%. The availability of special work wear and protection in food processing is certainly one way to ensure food hygiene. Based on the Minister of Health Regulation No. 1096/Menkes/Per/VI/2011, where food handlers must always wear special clothing or work clothes. Work clothes must be clean and not used outside work activities.

The eighth question item given to respondents about food processing personnel must wear headgear to avoid hair or dirt entering food. The majority of respondents gave answers agreeing with a percentage of 51.70%. Headgear guarantees hygiene from food processors. Dirt in the head such as hair, dandruff, head lice and so on can be avoided falling into processed food.

In the ninth question item given to respondents about hands, nails, skin, hair, teeth must always be clean. The majority of respondents gave answers agreeing with a percentage of 70%. Body hygiene is certainly the basis for ensuring the hygiene of food that is processed, especially the hand of food handlers must be kept clean.

In the tenth question item given to respondents about sneezing or coughing, the mouth or nose must be covered with a mouth covering (handkerchief). The majority of respondents gave answers agreeing with a percentage of 66.70%. The use of mouth covers aims to avoid contamination of food with bacteria that come out of the mouth.

On the eleventh question item given to the respondent about holding the tools in place, for example holding a spoon and fork on the stem, do not hold the glass on his lips. The majority of respondents gave answers agreeing with a percentage of 63.30%.

In the thirteenth question item given to respondents about implementing the principle of personal hygiene at work. The majority of respondents gave answers agreeing with a percentage of 78.40%. Hygiene is a priority scale for food processors. The risk of low awareness about the cleanliness of workers has a negative impact on the quality of food hygiene it produces. Then it needs serious attention to hygiene in work.

In the fourteenth question item given to respondents about identifying hygiene principles. The majority of respondents gave an agreeing answer with a percentage of 80%. Workers must be able to know and understand the principles of hygiene in food processing, both the hygiene of tableware and cooking utensils, the hygiene of food processing facilities, the hygiene of workers, and workplace hygiene.

In the fifteenth question item given to respondents about conducting personal hygiene. The majority of respondents gave answers agreeing with a percentage of 83.30%. Personal hygiene is an individual's effort in self-care by maintaining cleanliness so that it remains healthy, and can carry out work activities optimally. Personal hygiene behavior is inseparable from a person's level of knowledge about the risk of bacteria and germs that can damage a person's body.

In the sixteenth question item given to respondents about applying the principle of personal hygiene according to standard operating procedures. The majority of respondents gave answers agreeing with a percentage of 76.70%.

In the seventeenth question item given to respondents about implementing sanitation principles in the work environment. The majority of respondents gave answers agreeing with a percentage of 60%. Sanitation of the work environment certainly has an important impact on human cleanliness. Because in principle sanitation is the creation or maintenance of conditions that can prevent food contamination or the occurrence of diseases caused by food. So sanitation can be said as a concrete effort in realizing hygienic conditions.

In the eighteenth question item given to the respondent about identifying the principles of sanitation in the work environment. The majority of respondents gave very agree answers with a percentage of 60%. Understanding the importance of sanitation in an effort to keep the workplace environment clean is part of the process of achieving hygiene in food processing.

In the nineteenth question item given to the respondent about knowing the kinds of cleaning agents and the twenty-fourth item questions about using the right cleaning agent. The majority of respondents gave answers, each agreeing with a percentage of 51.70% and 81.70%. This shows that the use of cleaning tools in cleaning food processing equipment and workplaces must be adjusted to their function and usefulness and accuracy in their use.

In the twentieth question item given to respondents about classifying various types of cleaning tools. The majority of respondents gave answers agreeing with a percentage of 51.70%.

In the twenty-first question item given to respondents about applying environmental hygiene according to sanitation principles and the twenty-eighth item question about cleaning and sanitizing the workplace. The majority of respondents gave answers each agree with a percentage of 70% and 76.70%. This shows that the cleanliness of the environment where food processing cannot be implemented without referring to sanitation principles.

In the twenty-second question item given to respondents about choosing waste according to health regulations. The majority of respondents gave answers agreeing with a percentage of 66.70%. Waste water from the results of food processing is basically a product that is damaged/dirty. Various types of waste from waste food processing materials that are discarded, if not handled properly can cause negative effects on contamination of food. Then it is necessary to arrange the flow of the waste disposal process by calcifying the waste that is disposed of.

In the twenty-third question item given to the respondent about cleaning, sanitizing, and storing equipment and items of the twenty-sixth question about storing equipment safely. The majority of respondents gave each answer agree with the percentage of 86.60% and 81.60%. Tableware and cooking equipment must be kept clean at all times

will be used. Then the process of storing equipment after cleaning must be placed in a safe and clean place.

In the twenty-fifth question item given to respondents about cleaning, sanitizing equipment in accordance with the SOP. The majority of respondents gave answers agreeing with a percentage of 85%. Cleaning equipment is an optimization in maintaining food hygiene so that it is not contaminated when the equipment is used. Cross-contamination often occurs with equipment used by food handlers, such as cutting boards, knives and other equipment (Knowles, 2012).

In the twenty-seventh item question given to respondents about implementing a routine cleaning schedule for equipment and items of the twenty-ninth question about maintaining, cleaning equipment according to sanitation principles. The majority of respondents gave answers agreeing with 76.70% and 68.30% respectively. The process of cleaning equipment regularly is part of maintaining and maintaining so that the equipment can be used effectively and avoidably from various bacteria contamination.

In the thirtieth question item given to the respondent about choosing the right types of room cleaners. The majority of respondents gave answers agreeing with a percentage of 53.30%. In the process of selecting room cleaners the attention of respondents in their use. Room cleaners must refer to the tools and materials used, so as not to cause food poisoning and food processing results.

In the thirty-one question item given to the respondent about storing chemicals, equipment appropriately and safely. The majority of respondents gave answers agreeing with a percentage of 53.30%. Storage of chemicals and equipment after completion of their use avoids the risk of poisoning and contamination of equipment from bacteria.

The results of observations of 15 food provider businesses (catering) in Medan City can be stated:

Table 1
Results of Hygiene and Sanitation Observations
Management of
Food Provider Services in Medan City

No	Description	QW	Result	Remarks
1	Location, Building, Facilities			
	Yard	1	0,5	Ineligible
	Construction	1	0,7	Less eligible
	Floor	1	0,7	Less eligible
	Wall and Ceiling	1	0,7	Less eligible
	Doors and Windows	1	0,7	Less eligible
2	Lighting	1	1	Eligible
3	Insolence	1	0,7	Less eligible
4	Clean water	5	5	Eligible
5	Dirty / wastewater	1	0,5	Less eligible
6	Hand washing and toilet facilities	3	2	Less eligible
7	Waste disposal	2	1	Less eligible
8	Food processing room			
	Floor area	1	0	Ineligible
	Room	1	0	Ineligible
9	Employee			
	Disease free	5	2	Less eligible
	Cleanliness of the limbs	5	5	Eligible
	Clothing, hair and jewelry	1	1	Eligible
10	Food			
	Food source	5	5	Eligible
	Food material	1	1	Eligible
11	Food Protection			
	Food handling at temperatures	5	5	Eligible
	Handling food on the lid	4	1	Less eligible
12	Tableware and Cook			
	Protection of eating and cooking equipment	2	1,5	Less eligible
	Cutlery and cooking	2	0	Ineligible
	Washing process	5	1	Less eligible
	Poison / pesticide ingredients	5	2	Less eligible
	Protection of disturbing animals.	4	2	Less eligible
13	Other Support Facilities			
	The food processing room is not used as a bedroom.	1	0,7	Less eligible
	1 (one) refrigerator is available	4	3	Less eligible
	The release of kitchen fumes is equipped with a smoke disposal device.	1	0	Ineligible
	Washing facilities are made with three washing basins.	2	0	Ineligible
	Changing rooms are available and are equipped with clothes storage (lockers).	1	1	Eligible

Tabel 2.
Results of Hygiene and Sanitation Observations
Management of
Food Provider Services in Medan City

No	Description	QW	Result	Remarks
	The food processing room is not used as a bedroom.	1	0,7	Less eligible
	1 (one) refrigerator is available	4	3	Less eligible
	The release of kitchen fumes is equipped with a smoke disposal device.	1	0	Ineligible
	Washing facilities are made with three washing basins.	2	0	Ineligible
	Changing rooms are available and are equipped with clothes storage (lockers).	1	1	Eligible
	Kitchen sewerage is equipped with grease trap	1	0	Ineligible
	The cooking place is clearly separated from the place equipped with a thermometer controller. where cooked food is prepared.	1	0	Ineligible
	Cold storage cabinets with a temperature of -5 °C are	4	1	Less eligible
	Special food transport vehicles are available	3	1	Less eligible
	Meeting of floor corners and curved walls (konus).	1	0	Ineligible
	Study room available.	1	0	Ineligible
	Smoke disposal device equipped with filter (filter)	1	0	Ineligible
	Equipped with hot water for washing.	2	0	Ineligible
	The refrigerator can reach a temperature of - 10 ° C.	4	1	Less eligible
	Ventilation is equipped with a temperature control device.	1	0	Ineligible
	Cold storage cabinets are available for each type of material with a temperature that suits the temperature that is needed.	4	1	Less eligible
	Food / tool carrier racks are equipped with moving wheels.	1	1	Eligible

Source: Data processed, 2018.

The results of observations made relating to the condition of the yard, construction of buildings, floors, walls and ceilings as well as doors and windows in the food service provider business (catering) in Medan City were not met. Observations found that the yard conditions were still muddy, slum, foul odor and so on. Even when it rains, most of the food supply business pages are muddy and the water is stagnant, because the drainage channel is not made specifically and not often dredged. The state of foul odors is caused by landfills in places that are rarely close to food processing kitchens.

Observation results found that the building construction conditions used were not periodically repaired and monitored. Even the construction of kitchen building where food processing is still using board materials that have undergone weathering, so that termites, cockroaches, rats, insects, etc. breed. Observations found that the floor conditions were chipped, cracked, wavy, and moist. This is due to the old age of the building, as well as the absence of periodic improvements. Besides that, building foundation floors that are not solid and the pressure load of food ingredients and heavy equipment causes the floor to wave. While the intensity of the water that hit the floor continuously causing moisture and peeling occurs on the side of the floor.

Observations found that the wall conditions in the food service business mostly use brick and cement, but the wall layer does not use water-resistant materials, porcelain and stainless steel, so it tends to be moist when water splashes often occur when processing food, even mushrooms, cockroaches and other insects tend to develop. The ceiling basically has a role in maintaining the absence of the spread of dust, insects and other dirt that falls from the ceiling. However, the ceiling conditions on the roof of the food service business are not often cleaned periodically, so they tend to cause cobwebs, sawang, even dusty and blackened.

Observations found that the condition of doors and windows has not been maximally equipped with anti-insect/fly equipment such as gauze, curtains, double doors and others. Even the doors and windows of the food processing room have not been equipped with insect repellent fly equipment such as gauze, curtains, double doors and others that can be opened and installed for cleaning.

The results of observations made on the condition of clean water in the food service provider

business (catering) in Medan City were stated as having fulfilled the requirements. The role of clean water in food processing certainly requires good hygiene.

Field findings that the condition of clean water in the food provider business is in accordance with the Minister of Health Regulation No. 1096/Menkes/Per/VI/2011, where clean water must be available sufficiently for all catering services organizing activities. The quality of clean water must meet the requirements in accordance with applicable regulations.

The results of observations made about the condition of dirty water/waste in the food service provider business (catering) in Medan City were presented as not meeting the requirements. In the management of wastewater at the food provider (catering), it is found that the disposal process tends to be still not optimal. It can be seen that the disposal of waste water is carried out directly into the general drainage channel, causing environmental pollution and a foul odor. Even sewerage is experiencing a leak that is not immediately repaired. The results of observations made on the condition of garbage disposal in the food service provider business (catering) in Medan City were presented as not meeting the requirements. This is because landfills are close to food processing activities and washing equipment, so that it can cause food contamination from flies. Furthermore, the capacity of the trash can is very small, rubbish is scattered around the landfill, there is no organic and organic waste sorting so that the waste is mixed in one container, the landfill is not waterproof and strong, the trash does not have a lid which causes a bad smell that can invite flies breed.

The results of observations made about the health conditions of employees in the food service provider business (catering) in Medan City were not fulfilled. But on the contrary, for the cleanliness of the limbs and clothes, the employee has fulfilled the requirements. In health problems, the employees are less qualified due to the fact that there are still employees who have itching, flu, and extensive coughs and scars that have not healed so that the scars on the skin are still open. Examination efforts are often ignored by employees and companies. Besides that the lack of leadership attention to minor illnesses experienced by employees can certainly have an impact on the cleanliness of the food being processed.

Based on the results of observations made on the condition of food and food ingredients in the food service provider business (catering) in Medan City, it was stated that it did not meet the requirements. This can be seen from the source of raw materials to be processed obtained from traditional and modern markets, the quality and quantity of raw materials do not have collateral, there are suppliers who supply raw materials do not have certification from authorized agencies, the schedule of receipt and use of raw materials is not well coordinated.

The results of observations made on the food service provider business (catering) in Medan City, about the protection of eating and cooking utensils, the process of washing

equipment, the use of toxic materials/pesticides, and the protection of animals that interfere with its management do not meet the requirements, while the use of cutlery and cooking management not eligible. This is due to not maximizing the use of eating and cooking equipment in accordance with its functions and roles, storage of equipment, the number of places to wash equipment and limited food ingredients, protection and maintenance of hygiene and equipment damage has not been maximally done by employees, there is the use of disposable tableware used repeatedly Again, the process of washing the equipment sometimes does not use cleaning material, equipment storage is limited so that equipment may be contaminated with bacteria and germs.

IV. CONCLUSIONS AND SUGGESTIONS

Conclusions

Based on the findings of a study of food service providers (catering) in Medan City shows that employees strongly agree and agree not to chat or smoke while processing food, not eating or chewing while processing food, not wearing jewelry in carrying out work, not using equipment and facilities which is not the designation, always washing hands or feet with soap before and after work, and after leaving the restroom, always wearing work clothes and protective clothing properly, work clothes must always be clean and used only when working, food processing personnel must wear a lid the head to avoid hair or dirt into the food, hands, nails, skin, hair, teeth must always be clean, if sneezing or coughing, the mouth or nose must be covered with a

mouthpiece (handkerchief), holding the tools in place ,, implement the principles of personal hygiene at work, identify pr hygiene principles, conduct personal hygiene, apply the principle of personal hygiene according to standard operating procedures, implement the principles of sanitation in the work environment, identify the principles of sanitation in the work environment, recognize various cleaning materials, use appropriate cleaning materials, classify various types of cleaning tools , implementing environmental hygiene according to the principles of sanitation, cleaning and sanitizing workplaces, selecting waste in accordance with health regulations, cleaning, sanitizing, and storing equipment, securely storing equipment, cleaning, sanitizing equipment in accordance with SOPs, carrying out routine equipment cleaning schedules, maintaining , cleaning equipment according to sanitation principles, choosing the right kinds of room cleaners, and storing chemicals, equipment appropriately and safely.

Food service provider (catering) type B is as many as 12 units, Group A as much as 2 units, and Group C as much as 1 unit . List of food service provider businesses (catering) that have registration numbers/certificates from the Medan City Health Office, there are 12 who has a registration number/certificate and 3 who do not have a registration/certificate number.

Yard, construction of buildings, floors, walls and ceilings as well as doors and windows do not meet the requirements, construction of buildings, lighting has fulfilled the requirements, ventilation/ventilation does not meet the requirements, clean water has fulfilled the requirements, dirty water/waste does not meet the requirements, facilities hand washing and toilets do not meet the requirements, garbage disposal does not meet the requirements, the floor area and processing room do not meet the requirements, the health of the employees does not meet the requirements, the food and food ingredients do not meet the requirements, the food temperature has met the requirements, handling of food cover is not sufficient terms, eating and cooking utensils, washing process of equipment, use of toxic materials/pesticides and protection of animals that interfere with its management do not meet the requirements, the use of cutlery and cookware does not meet the requirements, the food processing room and the availability of refrigerators

still do not meet the requirements, floor and walls, study rooms, despair tools p, hot water channel for washing, and ventilation of the room do not meet the requirements, the refrigerator. temperature of 10⁰ C which is available does not meet the requirements, the ventilation does not meet the requirements, the food carrier/equipment rack has fulfilled the requirements.

Suggestions

1. Comprehensive legislation and supervision must be made periodically in ensuring that managers of food service providers carry out their activities properly.
2. Provision of licenses and certifications for food service providers needs to be carried out strictly.
3. Conduct periodic and scheduled supervision in anticipation of irregularities in food processing.
4. Certification of employees who work as food processors must be carried out objectively, and conduct repeat reviews according to needs,
5. Providing opportunities for workers in catering services to attend education and training in improving their professionalism and insight to optimize work activities carried out.

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