

Manuscript received March 29, 2022; revised April 08, 2022; accepted April 29, 2022; date of publication June 20, 2022;

Digital Object Identifier (DOI): <https://doi.org/10.35882/ijahst.v2i3.5>

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SWOT Analysis in Implementation of Health Protocols on Food Handlers for Covid-19 Prevention in Taman Prestasi, Surabaya City Culinary Center in 2021

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ABSTRACT The role of food handlers is to break the chain of transmission of Covid-19 by obediently implementing health protocols in places to eat. Objective: analyze the implementation of food-tailoring health protocols for the prevention of Covid-19 in the Culinary Center of Taman Prestasi Kota Surabaya. Analyze the implementation of food-tailoring health protocols for the prevention of Covid-19 in the Culinary Center of Taman Prestasi Kota Surabaya. This study is a descriptive observational study of a cross-sectional approach with SWOT analysis methods that are observed at the same time. The population of this study is food snatchers in the Culinary Center of Surabaya City Taman Prestasi. Food handlers in the culinary center of the most Taman Prestasi s are between 41-50 years old and female. Most high school-educated food vendors with a working period of between 1-5 years. Compliance of food handlers in the implementation of health protocols in the Culinary Center of Surabaya City Taman Prestasi with compliant criteria there are 19 (45%), and with non-compliant criteria, there are 23 (55%). Facilities and infrastructure in The Culinary Center of Taman Prestasi Surabaya City include criteria available in the application of health protocols with a percentage of 62%. The analysis of the implementation of food-enhancing health protocols with SWOT methods has quadrant I (progressive) criteria explaining the position of the Culinary Center of Surabaya City Taman Prestasi is strong and has the opportunity to develop efforts to prevent Covid-19 transmission by increasing the implementation of health protocols. Business actors routinely monitor and maintain the facilities and infrastructure available in the implementation of health protocols.

INDEX TERMS Food handlers, COVID 19 prevention, culinary centers, health protocols.

I. INTRODUCTION

People need nutritious and safe food to maintain immunity in the face of the spread of Covid-19. If the food processor does not pay attention to every stage of preparation, cleaning, processing to presentation, it has the opportunity to cause a negative impact on consumers, namely food poisoning. Through the official website of the Ministry of Health on September 26, 2018 explained that according to WHO there are more than 200 diseases that occur through food. Data from the Directorate of Environmental Health and Public Health Emergency Operation (PHEO), cases of food poisoning outbreak found 7132 with Case Fatality Rate (CFR) 0.1%. Data from the Ministry of Health explained that as many as

29% of the causes of poisoning in Indonesia due to individual hygiene factors [1].

The Causes of food poisoning is food delivery as a person who is directly related to each stage of food processing. Good food quality assurance is influenced by the knowledge, attitudes, and actions possessed by food handlers. As many as 80% of diseases contracted through food are due to pathogenic bacteria[2] . Norovirus (NoV) and Hepatitis A Virus (HAV) choose food as a medium of disease transmission. The virus transmits the disease to humans through infected food or water [3]. Since the announcement of the Covid-19 disease emergency in Indonesia by President Jokowi, Covid-19 disease has claimed many lives [4]. Covid-19 case data in the

dining cluster, explained that there were 10 positive cases that were suspected of contracting from soto lamongan sellers. After contact tracing it is known that there is 1 person who buys food to be wrapped and taken home, but still exposed to the virus.

The same thing happened to the bahrein cottage restaurant cluster in Bogor which recorded 8 positive cases of Covid-19. Transmission occurs through food due to direct or indirect contact of food handlers (through droplets or aerosols) [5]. Places to eat such as culinary centers are one of the public places that can become a cluster of Covid-19 spread that is influenced by several components, namely food processors, employees, visitors and infrastructure facilities[6]

Food handlers as one of the important components to break Covid-19 so as not to cause new sources of transmission. The role of food handlers to break the chain of transmission of Covid-19 needs to implement health protocols [7]. The Indonesian government issued health protocol guidelines in the framework of prevention and control of Covid-19 in the form of ministries for people who move in public places and facilities.

Health protocol is an effort to maintain the cleanliness of employees and food care workers with the aim of preventing food contamination in accordance with health facilities[8]. Implementing health protocols prevents the transmission of Covid-19 by using adaptations to familiarize clean and healthy living behaviors. Food handlers are accountable for implementing clean and healthy living habits to suppress the transmission of Covid-19 to places to eat. An important key in maintaining food security during pandemic times for buyers from contamination is the implementation of health protocols carried out by food handlers[9]. Health protocols as a decree must be followed to maintain health and avoid Covid-19, in order to be able to move safely during the pandemic. The purpose of the implementation of health protocols is to ensure the health of consumers through food quality[10].

Efforts to absorb food in breaking the chain of transmission of Covid-19 in culinary centers are to apply health protocols in the form of maintaining distance (social distancing), applying Clean And Healthy Living Behavior, wearing masks, and washing hands with soap or using hand sanitizer [11]. The implementation of health protocols implemented to break the Covid-19 chain in places to eat will not run optimally if it is not supported by food handlers, so it requires compliance of food handlers in complying with the implementation of health protocols in the environment where they eat.

Compliance is a state when an individual's behavior equals the actions ordered or suggested from an accurate and clear

source of information. Individual adherence is influenced by among other things age, knowledge, thinking about the severity of health problems, motivation, and culture[12]. According to research conducted by Afrianti explained that there are individuals who ignore and consider it as common in carrying out the prevention of Covid-19 transmission through the implementation of health protocols[13].

Characteristics of food handlers in the form of individual characteristics include age, gender, occupation, and education in determining compliance to prevent Covid-19[14]. Individuals with higher education influence knowledge and knowledge in maintaining food safety through the application of health protocols. Another thing that can affect the level of compliance of food handlers is the working time of a food handler. The longer the working life of the food handler, the more experience and skills in carrying out the responsibility of maintaining the quality of food [15]. Research conducted by Agve and Nirwaty, 2020 explained that in the Covid-19 Health protokel procedure at the tomb site, 22% of employees did not understand the implementation of health protocols.

Based on the background above, researchers are interested in raising the issue in a research writing titled "Application of Food Tailor Prokes For Covid-19 Prevention in Taman Prestasi Culinary Center ". The purpose of this study is to analyze the application of health protocols on food handlers for the prevention of Covid-19 in the Culinary Center of Surabaya City Taman Prestasi in 2021.

II. METHODS

The study used a descriptive observational design with a Cross-Sectional approach. According to Hidayat, Cross-Sectional design is a research design that takes measurements or observations at the same time to carry out exposure status examination activities at the same point[16]. This research is intended to analyze the application of food-handlers protocol health during the Covid-19 pandemic at the Culinary Center of Surabaya City Taman Prestasi using SWOT analysis methods to lead to improvements by improving health protocol compliance in food handlers. The research data that has been collected is then carried out descriptive analysis using the way it is displayed in the form of tables and outlined in the discussion compared to using the regulation of the minister of health, then conducting an analysis of strength, weakness, opportunity and threat factors using the SWOT method so that results are obtained regarding the application of health protocols to food handlers at the Culinary Center of Taman Prestasi Kota Surabaya.

III. RESULTS

The results of the assessment of facilities and infrastructure in the application of health protocols in the Culinary Center of Taman Prestasi Kota Surabaya has a total result of 22 (62%) which is included in the available category.

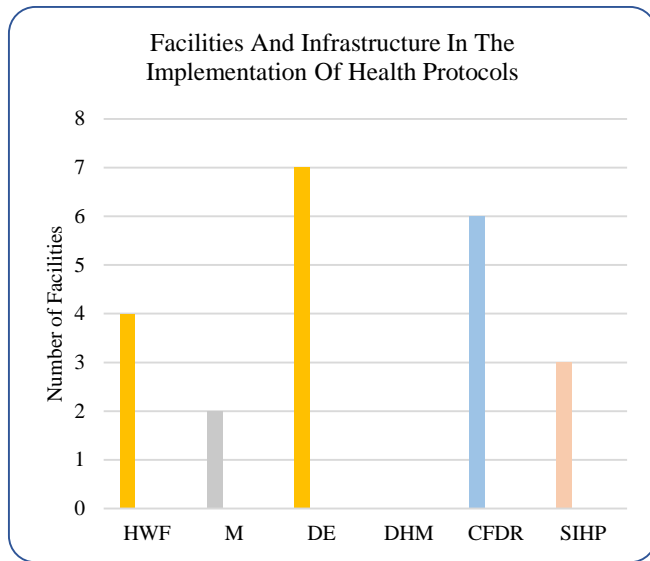


FIGURE 1. Assessment of The Results of Observation of Health Protocol Facilities and Infrastructure at the Culinary Center of Surabaya City Achievement

Description:

HWF : Hand Washing Facilities

M : Mask

DE : Desinfection equipment

DHM : Daily Health Monitoring

CFDR : Cleaning facilities of the dining room

SIHP : Slogan of the Implementation of health protocols

Figure 1. showed that the amount of value obtained from

TABLE 1 Recapitulation of Food Tailor Results in the Implementation of Health Protocols in The Culinary Center of Surabaya City Taman Prestasi

Food handler's compliance level	Total			
	Obey	%	Not obey	%
Entrance	20	48	22	52
Food and beverage service	14	33	28	67
Kitchen	18	43	24	57
Exit	10	24	32	76
Wearing a mask	17	40	25	60
Washing hands	12	29	30	71
Wearing hand sanitizer	15	36	27	64
Keep distance	20	48	22	52
Temperature check	25	60	17	40
Ethics of coughing/sneezing	11	26	31	74

TABLE 1. It is known that there are as many as 20 food handlers obediently implementing the implementation of health protocols in the entrance area. There are as many as

14 food handlers obediently implementing health protocols in the food and beverage service area. In the kitchen area, there are 18 food handlers obediently implementing the implementation of health protocols. Then in the exit area, there are 10 food handlers obediently carrying out the implementation of health protocols. There are as many as 17 food vendors obedient in carrying out the application of wearing masks. In the application of hand washing there are obedient food handlers and on the use of handsanitizer there are 15 obedient food handlers. Then in the application of maintaining distance there are 20 compliant food handlers and at temperature checks there are 25 patu tailors carrying out, and in implementing the application of cough / clean ethics there are 11 obedient fishermen.

TABLE 2 Matrik EFAS Implementation of Health Protocol to Food Tailors in Culinary Center of Surabaya City Taman Prestasi in 2021

External Strategy Factors	Weight	Rating	Value
Opportunity			
Ease of accessing information regarding Covid-19 prevention.	5	10	50
Improved food ordering services through take away app.	4	9	36
Comments that prioritize food safety.	5	8	40
The existence of food packaging innovation ang hygiene	3	6	18
Health checks to food fishermen and sanitation inspections conducted by health centers	4	10	40
The government's care and seriousness in helping the community	3	5	15
Total			199
Threat			
Weakening national and international economies affect the cost of need in providing PPE	5	5	25
The sudden, unpredictable rise in Covid-19 cases.	4	7	28
Climate change that affects the body's immunity	4	8	32
Weakening national and international economies affect delays in the need for disinfectant materials	5	5	25
Transaction activities that are often done in cash.	3	8	24
Total			134
Value X = Total opportunity – total threat			65

TABLE 2. Explaining external strategy factors in the form of opportunities and threats possessed in the implementation of health protocols in the Culinary Center of Surabaya City Taman Prestasi. The total probability value calculation results are greater than the total threat value. The total probability value is 199 and the total threat value obtained is 134. The result of calculating the value X is 65 (the difference in the total value of the opportunity and the total value of the threat).

TABLE 3. Explaining that internal strategy factors in the form of advantages and advantages are owned in the application of health protocol in The Culinary Center of Taman Prestasi Kota Surabaya. The total profit value is greater than the total value of the weakness. The calculation of the total profit value is processed 265 and the total weakness value is obtained 205. The result of calculating the value of Y is 60 (the difference in the total value of profit and the total value of weakness).

TABLE 3.
Matrik IFAS Application of Health Protocol to Food Handlers in Culinary Center of Surabaya City Taman Prestasi in 2021

External Strategy Factors	Weight	Rating	Value
Strength			
There was a handwash at the entrance, a service area between drinks, and in the kitchen area.	5	8	40
There was clean water flowing smoothly.	5	10	36
The business processor provides backup masks to food handlers..	3	8	40
Disinfection was done at least 3 times a day.	4	10	18
Cleaning tools available	3	8	40
There was a slogan for the implementation of health protocols.	2	7	15
Always wash your hands after the toilet.	5	9	45
Hand washing.	4	7	28
Total			268
Weakness			
Delay in filling soap on hand washing facilities.	5	8	40
No seating distance setting of at least 1.5 meters.	4	6	24
The use of masks is done when providing food and beverage services.	5	7	35
Not apply 5 steps of hand washing when before and during food processing.	4	8	32
There's a crowd of social contacts.	3	5	15
The slogan is small and not attached to a place that can be seen by food vendors and visitors.	2	4	8
The existing thermos gun does not work properly.	4	9	36
Only a few employees use hand sanitizers because business processors don't provide them.	3	5	15
Total			205
Nilai Y			60
Total strength–total weakness			60

Based on **FIGURE 2** explained that the relative position of compliance levels in the application of health protocols in the culinary center of the Taman Prestasi is in quadrant I (progressive) with coordinate point X = 65 and coordinate point Y = 60. The position of the development of quadrant I strategy is the SO strategy. This shows that the culinary center of Surabaya City Taman Prestasi has a strong position and has the opportunity to develop efforts in the prevention

of Covid-19 through increasing compliance with the implementation of health protocols.

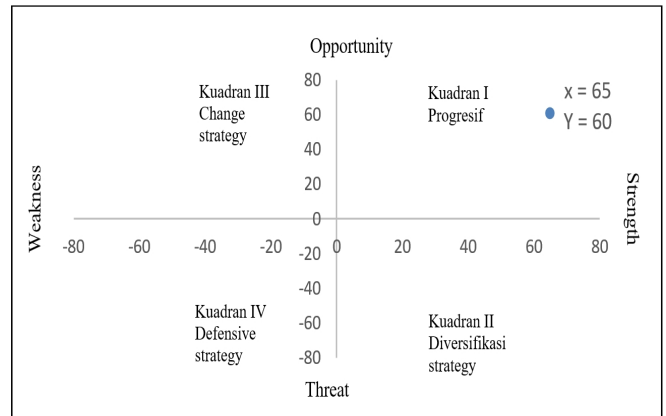


FIGURE 2. SWOT quadrant analysis

IV. DISCUSSION

Based on the matrix calculation of external and internal strategies obtained coordinate point X = 65 and coordinate point Y = 60 with the location of relative compliance of food handlers in the application of health protocols is in the strategy of developing quadrant I (progressive). The meaning of the location of quadrant I (progressive) indicates the culinary center of Surabaya Taman Prestasi that has a strong position and has the opportunity in developing efforts to implement health protocols for food vendors to break the chain of transmission of Covid-19. The position of the strategy of developing SWOT analysis quadrant I is the SO Strategy (Strenght – Opportunity) which uses the power to take advantage of the opportunities owned by the culinary center of Surabaya city Taman Prestasi.

So strategy (Strenght – Opportunity) is formed based on the internal strength possessed by the culinary center of Surabaya city Taman Prestasi to use the opportunities that exist in the new normal era. Based on the results of research conducted by [17] [17] explained that the order of strength is arranged ranging from the highest to the lowest. The strength possessed by the culinary center of Surabaya city Taman Prestasi is the availability of hand washing at the entrance, beverage food service area, and in the kitchen area, there is clean water flowing smoothly, hand washing always after from the toilet, hand washing facilities are well maintained, business processors provide backup masks to food handlers, disinfection is done at least 3 times a day, cleanliness tools are available, there is a slogan for the implementation of health protocols.

While on the opportunities owned by the culinary center of Surabaya city Taman Prestasi is the ease of accessing the information on the prevention of Covid-19, the improvement of food ordering services through take-away applications, comments that prioritize safety, the innovation of hygiene food packaging, health checks to food fisheries and sanitation inspections conducted by health centers, concern and

government resilience in helping the community. Research conducted by [18] explained that each SWOT analysis strategy has different intentions and objectives in increasing strengths and opportunities and minimizing weaknesses and threats.

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Strategies to gain consumer confidence in the new normal era in places to eat must obediently implement health protocols to break the chain of transmission of Covid-19. From the results of the research obtained so (Strenght – Opportunity) strategy to improve compliance with the implementation of health protocols in food handlers as an effort to prevent Covid-19 in the culinary center of Surabaya city Taman Prestasi in the form of maintaining good facilities and infrastructure so as not to decrease, improving the completeness of facilities and facilities that are lacking, utilizing the current technology to access information over the internet, Increase awareness and gotong royong in breaking the chain of transmission of Covid-19, making innovations in improving food safety skin for consumers, increasing immunity and utilizing health facilities provided by the government well.

V. CONCLUSION

There were 42 food handlers in The Culinary Center of Surabaya City Taman Prestasi in 2021 with characteristics of 55% aged 41-50 years, 88% of female food stresses, then 33% of the school-educated food scorers, and 43% of most food scorers had a worked period between 1-5 years.

Facilities and infrastructure in the culinary center of Surabaya Taman Prestasi in 2021 include criteria available (62%) in the provision of facilities and infrastructure for the prevention of Covid-19 which includes hand washing facilities, masks, disinfection equipment, daily health monitoring, hygiene facilities, and the slogan of the implementation of health protocols.

The implementation of health protocols on food handlers for the prevention of Covid-19 disease in the Culinary Center of Taman Prestasi Kota Surabaya in 2021 showed that there were 19 (45%) compliant with the implementation of health protocols and there were 23 (55%) non-compliant in the implementation of health protocols. The results of the analysis of the implementation of health protocols on food handlers in the prevention of Covid-19 in the Culinary Center of Surabaya

City Taman Prestasi lies in quadrant I which is progressive so the SO (Strenght – Opportunity) strategy is chosen that uses the power to take advantage of opportunities.

Suggestions for food handlers are Monitoring facilities and infrastructure more routinely regarding the availability of handwashing soap and disinfection materials in the culinary center of Surabaya city Taman Prestasi and raising awareness of implementing health protocols.

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