CHAPTER 1

PRELIMINARY

1.1. Research Objects Overview

1.1.1. Jakarta Culinary Center

Culinary schools play a crucial role in providing comprehensive education and training for aspiring chefs, culinary professionals, and individuals passionate about the culinary arts. These institutions offer a wide range of programs and courses that cover various aspects of culinary skills, techniques, and knowledge. One notable culinary school is the Jakarta Culinary Center, located in Jakarta, Indonesia. The Jakarta Culinary Center is recognized for its commitment to excellence in culinary education, offering diploma courses, certifications, and workshops that cater to the diverse needs and interests of culinary enthusiasts.



Figure 1. 1 Jakarta Culinary Center Logo

Source: Jakarta Culinary Center, 2023

Jakarta Culinary Center was first established in 2005 and is considered as one of the first culinary institutions established in Jakarta in the past. Since 2005, Jakarta Culinary Center has formed many professional chefs and entrepreneurs in the Food and Beverages industry. Jakarta Culinary Center is a leading cooking school located in West Jakarta, DKI Jakarta, precisely located at Jalan Tanjung Duren Raya No.353 B, RT.7/RW.5, Tanjung Duren Utara, District. Grogol Petamburan, West Jakarta City, Special Capital Region of Jakarta 11470.

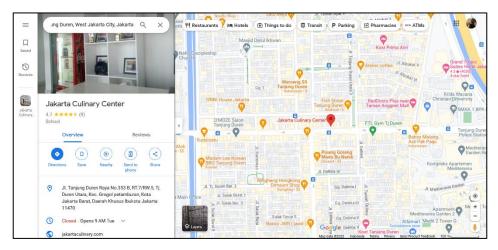


Figure 1. 2 Jakarta Culinary Center Location

Source: Google Maps, 2023

Jakarta Culinary Center boasts state-of-the-art infrastructure and modern facilities that create an optimal learning environment for culinary students. Jakarta Culinary Center is equipped with well-equipped culinary labs, demonstration kitchens, and cutting-edge culinary technology. These facilities allow students to gain hands-on experience and develop essential culinary skills under the guidance of experienced instructors. Jakarta Culinary Center commitment to providing a conducive learning space ensures that students receive practical training that aligns with industry standards, preparing them for successful careers in the culinary field.

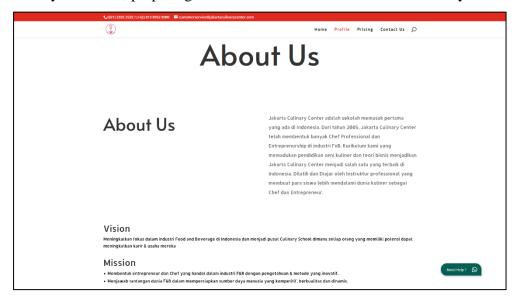


Figure 1. 3 Jakarta Culinary Center Official Website

Establishing strong connections with the culinary industry is a fundamental aspect of culinary education. Jakarta Culinary Center has forged partnerships and collaborations with renowned restaurants, hotels, and culinary organizations. These industry connections offer students opportunities for internships, industry placements, and networking with established professionals. By bridging the gap between academia and industry, the Jakarta Culinary Center ensures that students gain exposure to real-world culinary experiences and stay updated with industry trends. Jakarta Culinary Center industry connections contribute to the development of well-rounded culinary professionals who are ready to excel in the competitive culinary industry. The following is the vision and mission of the Jakarta Culinary Center:

a. Vision

Increase focus on Indonesia's food and beverage industry and become the center of culinary institution where everyone with potential can enhance their career & business.

b. Mission

- 1. To create reliable culinary entrepreneurs in the culinary industry with innovative knowledge & methods.
- 2. Answering the challenges of the culinary world in preparing competitive, qualified and dynamic human resources.

In addition to providing a solid foundation in culinary techniques, the Jakarta Culinary Center emphasizes culinary innovation and creativity. The Jakarta Culinary Center encourages students to explore their creativity, experiment with flavors, and develop unique culinary creations. By fostering an environment that promotes innovation, Jakarta Culinary Center nurtures students' creativity and enables them to push the boundaries of traditional culinary practices. Through research projects, culinary competitions, and culinary showcases, the Jakarta Culinary Center instils an entrepreneurial mindset and prepares students to become future leaders and innovators in the culinary field.

As a prominent culinary institution, Jakarta Culinary Center plays a vital role in shaping the culinary industry's future and promoting responsible practices. The adoption of SDG 11.6 principles within the Jakarta Culinary Center aligns with the global sustainability agenda and reinforces its commitment to social and environmental responsibility. SDG 11.6 holds great significance for the Jakarta Culinary Center as it guides and informs the perfect approach towards sustainable consumption and production. By embracing sustainable sourcing, waste reduction, education, and collaboration, Jakarta Culinary Center contributes to a more sustainable culinary industry, fostering a positive environmental and social impact. Through research and ongoing efforts, the Jakarta Culinary Center strives to further enhance its alignment with SDG 11.6 and inspire sustainable practices among future culinary professionals.

1.2. Research Background

The issue of global food waste is multifaceted, spanning from the initial stages of agricultural production to the ultimate destination of landfills. The agricultural and livestock sectors, which fall under the purview of food production, are among the most influential factors impacting sustainability (Şahin & Gök Demir, 2023). Irresponsible consumption and production practices continues to impose a heavy burden on our planet, resulting in the accumulation of waste and pollution (Cahyani et al., 2022; Gunawan et al., 2022). This makes food loss and waste a global problem (Helander et al., 2021; Saliem et al., 2021), and this is where sustainable waste management plays an important role in achieving the SDGs (Chen et al., 2022; Venturelli et al., 2022). Sustainable food waste management is correlated with the 11th and the 12th Sustainable Development Goals of the United Nations: "Waste Management" and "Reduce Waste Generation" (Berisha et al., 2022; FAO, 2022).

The COVID-19 pandemic has significantly disrupted the food supply chain, causing instability across various sectors of the economy (Ming, 2021; OECD, 2020). However, it is noteworthy that this crisis has also resulted in a reduction of food waste in several countries (Iranmanesh et al., 2022). To sustain the favorable COVID-19-induced attitudes towards the prevention of food waste, it is imperative

to intensify educational and communicative initiatives aimed at enhancing public awareness of the overall ramifications of food waste and the advantages of prevention (Jribi et al., 2020). The government as policymakers are challenged to build a more sustainable economic system, as evidenced by the 8.9% of the world's population affected by food insecurity (Venturelli et al., 2022).

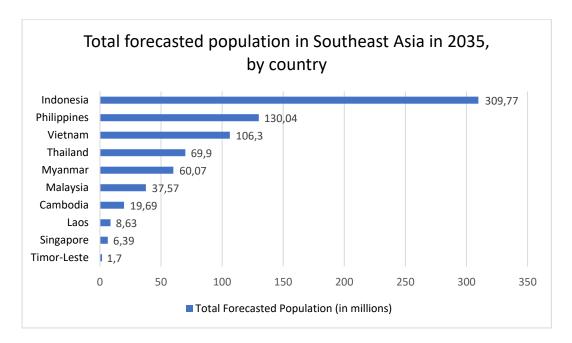


Figure 1. 4 Total Forecasted Population in Southeast Asia in 2035

Source: Statista, 2023

In the middle of our global food system crisis, Asia contributes to more than 50% of global food waste, with industrialised urban centres in the region being the main culprits (Ho, 2019). As one of the largest countries in Southeast Asia, Indonesia was forecasted to reach approximately 309.8 million people in 2035 (Leander von Kameke, 2022). However, with significant population growth, the amount of food wasted might also increase (Goyal et al., 2023). Furthermore, Indonesia turns out to be one of the countries that contribute significantly to food loss and waste in the world (Iriyadi et al., 2023). The quantity of food waste created in metropolitan settings such as the capital city of Indonesia, Jakarta is fast growing due to rapid population expansion and rising food consumption. Other than that, food waste has been shown to be incredibly destructive to the ecosystem, and is

even one of the leading causes of global warming (Susilo et al., 2021). As a result, it is critical to conserve the ecosystem indefinitely and assure a stable future for future generations (Waluyo & Kharisma, 2023).

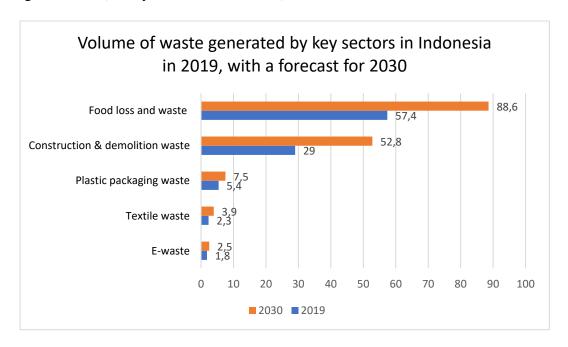


Figure 1. 5 Volume of waste generated by key sectors in Indonesia 2019-2030

Source: Statista, 2021

Food waste generation is becoming a growing issue in Indonesia (Sholihah et al., 2022). According to the National Development Planning Agency (Bappenas), Indonesia's food loss or waste during the last two decades has ranged from 115 to 184 kilos per capita per year. Indonesia disposed of 23-48 million tons of food waste every year from 2000 to 2019, which equates to 115-184 kg per inhabitant per year. The annual economic loss is Rp 213-551 trillion, or around 4-5 percent of Indonesia's GDP. Socially, it results in a loss of energy equal to a piece of food for 61-125 million people every year (Bappenas, 2021). in 2019, food loss and waste generated the most waste in Indonesia, at more than 57.4 million metric tons. Food waste might reach 88.6 million metric tons in 2030 if there is an excess of supply due to an imbalance in the supply and demand between farmers and consumers (Statista, 2021).

In anticipation of the accumulation of food waste, Indonesia already has regulations in food waste management stated in Law Number 18 of 2008 which states that waste management consists of waste reduction and waste handling (Government of Indonesia, 2008). Therefore, if Indonesia can commit to reducing food loss and waste, meeting food needs can be done with a smaller budget (Waluyo & Kharisma, 2023), resulting in other important issues such as infrastructure and poverty alleviation receiving additional funds (Delvaux & Van den Broeck, 2023). Although it will take some effort to keep that commitment, supporting campaigns with themes such as sustainable energy, environmental concerns, social inclusion, and poverty alleviation can be an effort to maintain public interest in these topics (Hübscher et al., 2022; Sutinen & Närvänen, 2022).

The largest producers of food waste are households and therefore consumers (Ghinea & Ghiuta, 2019; Schanes et al., 2018). This food waste arises from household consumption, food service, and retail (Annaraud & Barezina, 2020; Şahin & Gök Demir, 2023). Therefore, players in the food industry including SMEs must be able to separate and manage their food waste (Taneo et al., 2019). Since SMEs or factories not only play an important role in Indonesia's economic growth, but also in waste management (Pearson & Perera, 2018; Venturelli et al., 2022). Furthermore, as reducing food waste is costly, players throughout the food chain may be expected to adopt an action if the benefits of reducing food waste outweigh the costs of implementing the action (Goossens et al., 2019; Helander et al., 2021). As highlighted by various researchers, food waste generation at the consumption level is a very complex and multifaceted problem caused by various reasons and types of behavior (Ghinea & Ghiuta, 2019; Schanes et al., 2018; Vermeir et al., 2020). Food waste at the consumption level is caused by leftover uncooked food, leftover food that has been served, and spoiled or expired food as a result of purchasing excessive amounts of food (Kaur et al., 2020; Pais et al., 2023).

Food waste is a term used to describe the reduction in quantity or quality of food as a result of decisions and behaviors made by consumers or food service providers (Mulyo et al., 2022). As a significant issue for society and the

environment (Lombardi & Costantino, 2020; Romani et al., 2018), every supply chain actor needs to work with social and public actors to understand the reasons behind consumers' food waste behaviour in order to develop independent and/or collaborative initiatives to help consumers reduce food waste (Ariyani & Ririh, 2020). Change is needed at all levels of the food supply chain to achieve sustainable goals. Individuals and organizations active in agricultural production, food processing, manufacturing, and retail, such as supermarkets, cooking institutions and the foodservice industry will be included (Garnida et al., 2022). By becoming agents of change, each individual has the ability to raise awareness among other humans about the value of environmental protection (Manomaivibool et al., 2016; Susilo et al., 2021). As such, consumption pattern modification initiatives and goals to reduce the footprint of related data sources can be embedded into food waste reduction targets to generate much greater environmental benefits (Helander et al., 2021; Sholihah et al., 2022).

In the world of gastronomy, the effective management of culinary ingredients and the minimization of food waste are topics of significant importance (Gössling & Michael Hall, 2021). The emergence of gastronomy, referred to as the "art of living", and culinary institutions has seen substantial growth worldwide, and has resulted in a demand for trained experts to work in restaurants and food factories (Richardson & Fernqvist, 2022; Şahin & Gök Demir, 2023). Therefore, the culinary training programs created should cover various aspects of culinary skills, techniques, and knowledge. Jakarta Culinary Center as one of the leading cooking institutions in Indonesia offers various programs and courses that cover these aspects. The aspiring chefs who are now enrolled in the cooking and culinary arts programs at this cooking school will become professional chefs in the near future. Competent professional chefs can play an important role in changing consumer food preferences and improving the food processing system (Gössling & Michael Hall, 2021; Şahin & Gök Demir, 2023).

Food preferences, choices, and habits hold a significant position in human cultures, and the act of consuming food extends beyond its utilitarian purpose of sustaining life (Vermeir et al., 2020). In order to gain a comprehensive understanding of consumer behaviour, it is imperative to examine the entire consumption cycle, rather than solely focusing on initial choices (Iriyadi et al., 2023; Şahin & Gök Demir, 2023). This is due to the fact that post-choice behaviours, including product usage, product life extension, and product disposal, have a significant impact on sustainability and must be given equal consideration (Dimitrova et al., 2022; Özkaya et al., 2021). In this regard, a comprehensive understanding of the significance of consumer behavior in achieving sustainability goals is inadequate (Vergura et al., 2023). To understand the level of awareness and behavior regarding food waste in Jakarta Culinary Center, the researcher distributed a pre-campaign questionnaire in order to present the research results with a stronger context and provide a deeper understanding of the campaign towards behavior change. This will strengthen the research argument and demonstrate the relevance of the social awareness campaign towards achieving SDG 11.6 (Waste Management).

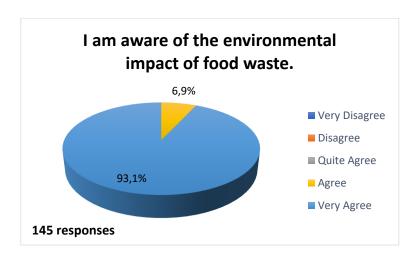


Figure 1. 6 Pre-campaign Indicator: Awareness of the environmental impact of food waste

Source: Data Processed by Researchers (2023)



Figure 1. 7 Pre-campaign Indicator: Understanding of how reducing food waste contributes to Sustainable Development Goal 11.6 (Waste Management)



Figure 1. 8 Pre-campaign Indicator: Knowledge of practical ways to reduce food waste

Source: Data Processed by Researchers (2023)

For the indicator "I am aware of the environmental impact of food waste" within the variable "Knowledge of Sustainable Food Waste Management Practices," a significant proportion of respondents (93.1%) strongly agreed that they are highly aware of the environmental consequences of food waste, demonstrating a solid foundation of environmental consciousness. Additionally, 67.6% of

participants strongly agreed that they understand how reducing food waste contributes to Sustainable Development Goal 11.6, indicating a good grasp of the broader implications of their actions. Furthermore, 86.2% expressed strong agreement with the statement "I am knowledgeable about practical ways to reduce food waste," demonstrating a commendable level of self-perceived competence in food waste reduction practices. Overall, these findings suggest a high level of awareness and self-reported knowledge among respondents regarding the importance and practical aspects of sustainable food waste management.



Figure 1. 9 Pre-campaign Indicator: Belief in the importance of reducing food waste for the environment

Source: Data Processed by Researchers (2023)



Figure 1. 10 Pre-campaign Indicator: Willingness to make an effort to reduce food waste in daily life

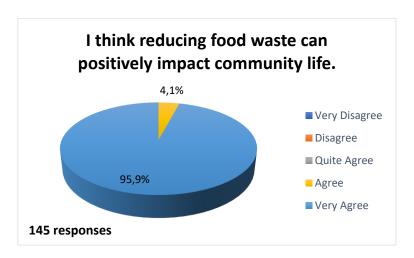


Figure 1. 11 Pre-campaign Indicator: Belief that reducing food waste can positively impact community life

Source: Data Processed by Researchers (2023)

Within the "Attitude towards Food Waste Reduction" variable, participants exhibited overwhelmingly positive attitudes. A striking 96.6% of respondents strongly agreed that reducing food waste is crucial for the environment, highlighting a strong commitment to ecological well-being. Furthermore, 86.2% indicated their willingness to make efforts to reduce food waste in their daily lives, reflecting a proactive stance toward behavioral change. Additionally, 95.9% believed that reducing food waste can have a positive impact on community life, underscoring their awareness of the broader societal benefits of their actions. These positive attitudes are highly conducive to the success of the upcoming social awareness campaign, as they indicate not only awareness but also motivation and alignment with the campaign's objectives.

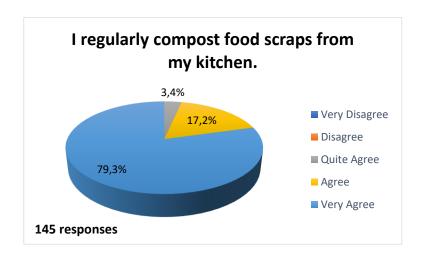


Figure 1. 12 Pre-campaign Indicator: Regularly composting food scraps from the kitchen

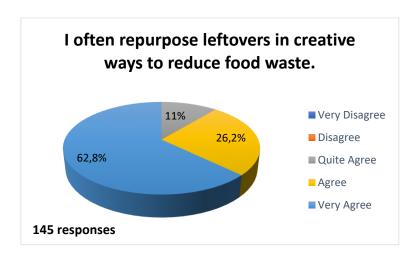


Figure 1. 13 Pre-campaign Indicator: Often repurposing leftovers in creative ways to reduce food waste

Source: Data Processed by Researchers (2023)

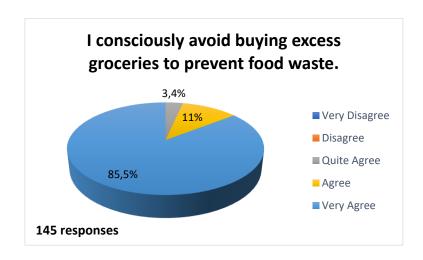


Figure 1. 14 Pre-campaign Indicator: Consciously avoiding buying excess groceries to prevent food waste

In terms of "Concrete Behavior in Food Waste Management," the data indicated a commendable level of engagement. For instance, 79.3% of respondents reported regularly composting food scraps, illustrating a practical commitment to waste reduction. Furthermore, 85.5% expressed the conscious avoidance of excess grocery purchases to prevent food waste, demonstrating an awareness of the importance of mindful consumption. Moreover, 62.8% creatively repurposed leftovers, indicating an innovative approach to reducing food waste. These behaviors illustrate that a significant portion of the community is already actively engaged in actions that align with food waste reduction principles, setting a promising precedent for the campaign.

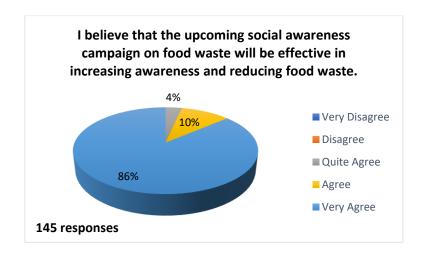


Figure 1. 15 Pre-campaign Indicator: Belief in the effectiveness of the upcoming social awareness campaign on food waste in increasing awareness and reducing food waste

Lastly, concerning the "Perceived Effectiveness of Social Awareness Campaign," 93.1% of respondents believed that the upcoming campaign would be highly effective in increasing awareness and reducing food waste. This positive anticipation reflects a receptive and expectant community, suggesting a high likelihood of active participation and engagement with the campaign's initiatives. Based on previous research conducted by Chinie et al., (2021) food waste awareness campaigns may have a positive impact on consumer attempts to reduce the amount of wasted food. Many other previous studies also support that food waste awareness campaign has a positive impact on food waste reduction (Manomaivibool et al., 2016; Szakos et al., 2021). Drawing attention to the issue of food waste and presenting solutions for how to decrease it is critical to the success of such a campaign (Pearson & Perera, 2018).

Furthermore, A variety of communication strategies are used to raise consumer knowledge of the environment while raising awareness of the consequences of food waste (Susilo et al., 2022). Again, in addition to planned actions aimed at educating consumers, sharing evidence of food wastage or household efforts to reduce food waste using the specific informative resources provided on online social networks could be an additional useful way to raise awareness, skills, and directly support intentions (Romani et al., 2018). In Addition, (Purwanto, Biasini, et al., 2023) show that positive attitudes significantly influence a person's intention and behavior to reduce food waste. Also, prevention efforts should be designed with behavioral components in mind first and foremost (Szakos et al., 2021).

The author adeptly executed a multifaceted social awareness campaign at the Jakarta Culinary Center, employing a well-rounded strategy that encompassed education, active participation, and engagement with all stakeholders. This campaign's educational aspect featured concise seminars and hands-on experiences during cooking classes, ensuring that students, instructors, and employees were well-informed about sustainable food waste management practices. Furthermore, the author harnessed the power of visual media, crafting an impactful video that vividly depicted the repercussions of food waste on the environment and society. This video was disseminated through multiple channels, including TikTok, to reach a broader audience. In essence, the author's approach was both informative and engaging, fostering a deeper understanding of the cause while mobilizing individuals to take meaningful actions, making it a compelling and effective campaign.



Figure 1. 16 Food Waste 101 Campaign TikTok Video (@foodwaste101)

Sumber: TikTok, 2023

The author separately ran an awareness campaign experiment in support of the primary research to raise awareness and spread knowledge about food waste by producing and publishing video content on the TikTok account Food Waste 101 (@foodwaste101). In a TikTok video, a person is shown squandering food on the

floor, resulting in food waste. At the end of the video, it shows that there are still many impoverished people who are starving. Even though it's just a short 1-minute video, it has been viewed 44.5 thousand times and get over 1000 likes. Information campaigns can be used to aid societal change (Chinie et al., 2021). By using social media to spread information and knowledge can be a step in food waste awareness campaigns (Sutinen & Närvänen, 2022).

Managing food waste at home has been an essential aspect of my life, especially given my research focus on SDG 11.6 Waste Management. One effective tip I've incorporated is practicing mindful grocery shopping by making a detailed shopping list and sticking to it, which helps prevent over-purchasing and food spoilage. Additionally, I've established a well-organized composting system that transforms kitchen scraps into valuable compost for my garden. Leftovers are creatively repurposed into new meals, reducing waste and saving resources. Moreover, I've instilled an eco-conscious mindset in my household, raising awareness about the environmental consequences of food waste and encouraging responsible consumption. These strategies have not only reduced food waste in my home but also aligned with the principles of sustainability and waste reduction that underpin my research efforts at Jakarta Culinary Center.

Food waste is a significant global issue, with adverse environmental, social, and economic impacts. Sustainable Development Goal 11.6 Waste Management aims to ensure sustainable consumption and production patterns, including reducing food waste. Culinary institutions, such as the Jakarta Culinary Center, have the opportunity to contribute to achieving SDG 11.6 Waste Management through social awareness campaigns. However, the extent of the influence of these campaigns on food waste management practices within culinary schools, specifically at the Jakarta Culinary Center, remains unclear.

1.3. Problem Statements

The author's motivation for conducting research on Sustainable Development Goal (SDG) 11.6, specifically focusing on waste management in Jakarta Culinary Center, is driven by a deep concern for environmental sustainability and a

commitment to fostering positive change within the culinary industry. The alarming global issue of food waste, with its detrimental impact on the environment and exacerbation of poverty, has compelled the author to explore actionable solutions at the grassroots level. By concentrating on a renowned culinary institution like Jakarta Culinary Center, the research aims to address the critical role that culinary education and awareness play in promoting sustainable food practices. The author envisions that the findings of this study will not only enhance knowledge but also inspire meaningful actions within the culinary community, thereby contributing to the larger goal of reducing food waste and advancing the principles of SDG 11.6. Through this research, the author seeks to empower individuals and institutions to become stewards of change in the fight against food waste, fostering a more sustainable and responsible culinary landscape in Jakarta and beyond.

The core problem addressed by this research is the imperative need to assess the effectiveness of social awareness campaigns about food waste reduction in realizing SDG 11.6 Waste Management at the Jakarta Culinary Center. Despite the increasing global emphasis on sustainable waste management practices and the evident environmental and social consequences of food waste, there is a gap in understanding how to translate awareness into meaningful action, particularly within educational institutions like the Jakarta Culinary Center. The pre-campaign questionnaire illuminates this issue, revealing a high level of awareness among students, instructors, and staff regarding the importance of food waste reduction. However, this awareness has not been accompanied by consistent and concrete behavioral changes in food waste management. The disconnect between knowledge and action underscores the core challenge – how to design and execute a social awareness campaign that not only enhances awareness but also catalyzes tangible behavioral shifts, fostering a culture of sustainable food waste management at the institution. This research seeks to address this critical problem and contribute to the achievement of SDG 11.6 by devising effective strategies for social awareness campaigns that drive real-world impact in the context of the Jakarta Culinary Center.

Although the phenomenon of food waste has been analyzed in Indonesia (Cahyani et al., 2022; Mulyo et al., 2022; Saliem et al., 2021; Waluyo & Kharisma, 2023), to the best knowledge of the authors, there has been no research on the impact of social awareness campaigns on food waste in the country. Moreover, as the topic of food waste is gaining attention, an empirical study on the impact of social awareness campaigns conducted so far will help organizations and policy makers to design better actions and measures to reduce food waste. The main initiative to raise awareness about food waste in Indonesia has been conducted by the National Food Agency. Studying the impact of awareness campaigns on people's behavior can support decisions on measures to be taken to reduce food waste effectively and efficiently. The intended audience is culinary school student and chef with added business owners in the food industry. Thus, this research not only provides a consumer's perspective, but also from the perspective of food businesses. This research also utilizes the role of social media in awareness campaigns to reduce consumer food waste. The purpose of this study is to find the relationship between food waste awareness campaigns and consumer behavior regarding food waste in Jakarta Culinary Center, based on the formulation of the problem above, the questions in this study are:

- a. Does the level of exposure of participants to the social awareness campaign impact their knowledge of sustainable food waste management practices?
- b. Does participants' perception of the effectiveness of the social awareness campaign influence their attitudes towards food waste reduction at the Jakarta Culinary Center?
- c. Is there a significant correlation between the level of exposure to the social awareness campaign and participants' concrete behavior in sustainable food waste management?

1.4. Research Purposes

Based on the formulation of the problem stated above, the objectives to be achieved from this research are:

- 1. To determine if participants' exposure to the social awareness campaign affects their knowledge of sustainable food waste management practices at the Jakarta Culinary Center.
- To find out if how effective participants perceive the social awareness campaign to be influences their attitudes toward reducing food waste at the Jakarta Culinary Center.
- 3. To understand if there is a clear connection between participants' exposure to the social awareness campaign and their actual behavior in managing food waste at the Jakarta Culinary Center.

1.5. Research Benefits

1.5.1. Practical Benefits

This study will provide valuable insights for policymakers, waste management practitioners, and campaign designers. The findings can inform the design of more effective awareness campaigns that resonate with the target audience, leading to increased adoption of sustainable food waste management practices. Moreover, local culinary establishments and communities stand to benefit from the implementation of practices identified as successful, contributing to reduced food waste, enhanced environmental sustainability, and improved resource utilization. This research ultimately empowers stakeholders with evidence-based strategies to address a pressing global issue at the local level.

1.5.2. Theoretrical Benefits

This study contributes to the theoretical framework of sustainable development and behavior change. The research provides insights into the cognitive processes underlying attitude formation, knowledge acquisition, and the translation of awareness into actionable behaviors. By identifying factors that influence individuals' responses to social awareness campaigns, this study enriches our theoretical knowledge of how interventions can effectively promote sustainable practices. Additionally, the study's findings may offer insights applicable to other domains, helping to advance theories related to behavior change, communication

strategies, and the alignment of individual actions with broader sustainability objectives.

1.6. Writing Structure

The writing structure was made to provide a general overview of research writing structure are as follows:

a. CHAPTER I

This chapter contains an overview of the research object, research backgroud, problem statements, research objectives, research benefits, and the writing structure of the thesis.

b. CHAPTER II

This chapter contains the literature review of research, previous research and research framework.

c. CHAPTER III

This chapter contains the types of research, operational variables, stages of research, population and samples, data collection, data analysis technique, and hypothesis.

d. CHAPTER IV

This chapter describes of respondent, the result of research and discussion of research.

e. CHAPTER V

This chapter describes the conslussions and suggestions regarding the result of research.