CHAPTER I
INTRODUCTION

A. Background

The introduction of a food producer on the planet becomes a consideration for the purpose of the creation of the food many of them. Creating the food for the benefit of the people but some sources have issues that are not relevant in their application. Who is used, who is useful for whom, become a discussion topic mostly (Roe et al., 2020). The main topic that these food producers are considering the contrMothertion made to waste from these foods has a fairly bad effect on the surrounding environment (Roe et al., 2020).

Every year the amount of food available to all living things. According to the level of supply chain of the food, the foods that are not exhausted in a production they become a new product to be created into other foods can be in the form of fertilizer products, animal feed and so on (Stancu et al., 2016). The number of human population growth is also a consideration for the main reason with the increase of a food to be consumed so that food producers will continue to provide these needs to the demand for these foods so that the pressure created to produce food sometimes exceeds the expectations and needs of these consumers (Mattar et al., 2018).

According to the Food and Agriculture Organization (FAO) in 2013-2014 there were 13 billion tons of food that became waste because it was not consumed every year it created a crisis, the loss decreased to the economic value USD 1 trillion (Sakaguchi et al., 2018). The FAO (1945) was established with the aim to decrease food losses in the early stages of the FSC when in 1974, the first World Food Conference address world hunger (Wajon & Ritcher, 2019). Where an emphasis was put on post-harvest losses as the main food waste indicator by 1990 it was solely on the technical part to develop a more holistic approach (Wajon & Ritcher, 2019).

The drastically increasing demand for food also increases competition. Food producers where they can get an excess advantage to meet these needs (Sakaguchi et al., 2018). However, the limited resources they have make it a challenge to meet these needs globally, animals that are disturbed by their environment because in the 21st century everything is described to do the best (Sakaguchi et al., 2018). Food producers must follow the current era is a modern era, companies will definitely have their own internal problems because the demand for food is so fast that it makes companies have their own challenges by maintaining food quality food safety to create a quality requirement for food (Heller et al., 2019). Sometimes the problems that arise also come from external parties such as policy makers or policy making institutions where an

administrative process will determine the level of success of the food service (Mondéjar-Jiménez et al., 2016).

In the application to deal with an increasing demand for food, companies must provide an estimate of the climate change (Sakaguchi et al., 2018). In developing countries the implementation of reducing non-consumable food has a barrier in its application because developing countries do not have a facility to create waste that is beneficial to the environment (Sakaguchi et al., 2018). According to (Kosassy et al., 2022), The daily production of individual and household waste cannot be separated from every activity of human life itself. In particular, household waste is also related to income level, education level, and family size. Waste management in rural areas is generally done by throwing it into the river and even piling it in the yard or garden. Experts have found various ways of dealing with waste, including ways of recycling, but these methods still have not solved the problem of waste that is increasing in number and types, both in rural areas and in urban slum areas.

The factories generate waste for multiple households, it can make better use of the resources who consumers tend to cook less from scratch at home therefore processed food has arguably a positive effect of household food waste (Wajon & Ritcher, 2019). In developed countries, supermarkets are overstocked with food. This creates *"a culture which places little value on food making it "easier" to throw it away"* that people always have the opportunity to purchase new food which this circumstance contrMothertes to the wasteful handling of food, reasons for the food going to waste, that could be avoided, are various with too large package sizes promote wasteful behavior (Wajon & Ritcher, 2019).

In addition, the 'pot and plate' portion sizes have increased over time, food is leftover because the amount prepared was too large or it has not been used in time, package sizes play also an important role to reduce food waste (Wajon & Ritcher, 2019). In contrast, better technologies, such as cookers, smart fridges, and meal planning tools can have a positive effect on the reduction of food waste (Wajon & Ritcher, 2019). They support food management in a sustainable manner and can reduce food waste, the consumption of more delicate products with shorter shelf-life is associated with an increasing amount of food waste, perishable goods make up for a large part of food waste (Wajon & Ritcher, 2019).

Food loss and food waste are an important control to the implementation of reducing food that is not exhausted or can be implemented for other benefits if the consumption of these foods can not finish them (Mattar et al., 2018). This problem will continue to become a global problem because it does not find a static solution that is carried out over a long period of time and even access to food consumption makes a very significant production of the factors that

influence it (Amirudin & Gim, 2019). Consumers are also aware of this issue but they can't do anything because they are limited to the needs and obligations (Romani et al., 2018). They carry out even though the empirical improvement, they consume, have minimized all aspects so that the food waste creates positive things for the community (Romani et al., 2018).

Indonesia is ranked second as the country that produces food waste in the world, this is stated in a report entitled *"fixing food: towards the more sustainable food system"* which was released in 2011 states that the average Indonesian person wastes about 300 kg of food every year (Khairunnisa, 2020). "*An extraordinary number with clear concern that this is a threat to Indonesia's food and nutrition security,"* Vice chairman of CODEX Alimentarius Commission Prof. Dr. Purwiyatno Hariyadi, MSc., CFS., in the food cycle webinar World Food Day 2020 on Friday (9/10/20) (Khairunnisa, 2020).

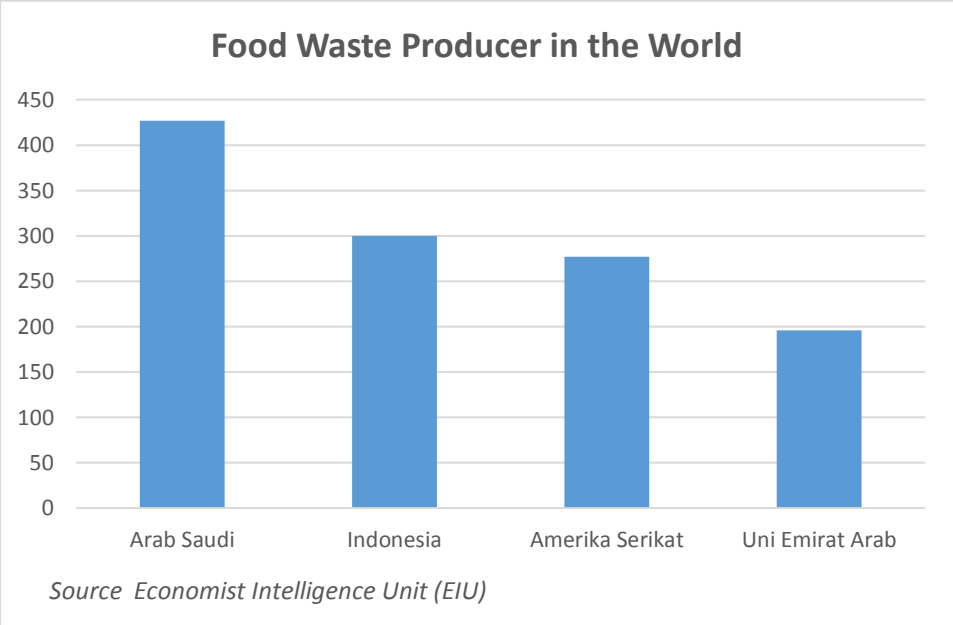

Figure 1. Economist Intelligence Unit

UU No.18 yr 2008 concerning waste management defines that waste is the residue of human daily activities and natural processes in the form of a solid, increasing amount of waste produced in line with the growth that occurs in the area, both population growth and the growth of waste generation which is influenced by the food growth index (Dewilda et al., 2019). According to Damanhuri and padmi (2016) only 40% of the waste that goes to the landfill the rest is handled by waste producers such as burning (35%) buried in the ground (7.5%) in compost (1.61%) and some efforts including recycling are thrown anywhere such as drainage, ditches, or other (Dewilda et al., 2019) even the city of Padang itself issued a special regional regulation for handling household waste, number 44 of 2018 (Padang, n.d.). Now there is no

national policy regarding solid waste itself is still socializing seeing that in urban areas the handling of waste management is very urgent, we hoped that UU Number 18 yr 2008 concerning Waste Management can be implemented (Kosassy et al., 2022)

LAMPIRAN I
PERATURAN WALIKOTA PADANG
NOMOR 44 TAHUN 2018
TENTANG KEBIJAKAN DAN STRATEGI DAERAH KOTA PADANG DALAM PENGELOLAAN SAMPAH RUMAH TANGGA DAN SAMPAH SEJENIS SAMPAH RUMAH TANGGA

TARGET PENGURANGAN DAN PENANGANAN SAMPAH RUMAH TANGGA DAN SAMPAH SEJENIS SAMPAH RUMAH TANGGA DI KOTA PADANG

I. Target Pengurangan Sampah Rumah Tangga dan Sampah Sejenis Sampah Rumah Tangga

INDIKATOR	TAHUN							
	2018	2019	2020	2021	2022	2023	2024	2025
Target Pengurangan Sampah Rumah Tangga dan Sampah Sejenis Sampah Rumah Tangga (ton)	39.658	44.064	48.470	52.877	57.283	59.486	61.690	66.096

II. Target Penanganan Sampah Rumah Tangga dan Sampah Sejenis Sampah Rumah Tangga

INDIKATOR	TAHUN							
	2018	2019	2020	2021	2022	2023	2024	2025
Target Penanganan Sampah Rumah Tangga dan Sampah Sejenis Sampah Rumah Tangga (ton)	160.834	176.256	165.240	163.037	160.834	158.630	156.427	154.224

Keterangan : Potensi Timbulan Sampah = 220.320 ton / tahun

WALIKOTA PADANG,

MAHYELDI

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Figure 2 : Local Regulation

Syaifudin Islami, administrator of the Indonesian Waste Bank Association (Asobsi) in West Sumatra, said that waste reduction needs to be looked at again, there was only a shift of activity from the public to the house (Baittri, 2020). "If there is a decrease because of reduced activity, such as reduced trade, yes, offices are less yes, only, I don't think there will be less activity at home," he said.

Padang City as one of the tourist destinations in Indonesia is experiencing growth in the economic sector (Dewilda et al., 2019). This is marked by the continued emergence of various restaurants, cafes, fast food restaurants and other places to eat. According to Department Padang City of Tourism and Culture (2017) notes 230 restaurant (Dewilda et al., 2019). This will have the potential to cause a large amount of waste in this sector, especially the potential for waste to arise from food waste with increasing waste (Dewilda et al., 2019).

The 33 hectares of landfill at Air Dingin Padang, only 17 hectares are controlled by the city government, only 13-14 hectares have been used. Indang Dewata, Chair of the Center for Environmental Studies and Head of the Postgraduate Environmental Science Study Program

at Padang State University (UNP) said that the improvement of Padang City's waste management was urgent (Baittri, 2020). The volume of waste is increasing along with population growth and the area is getting narrower.

Then various problems will arise, especially environmental pollution and aesthetic values that can harm Padang City as a tourism city (Dewilda et al., 2019) stated the one of issue other why Padang City needs considerating to realize this issue of waste production in the city of Padang, West Sumatra (West Sumatra) reaches 641 tons a day (Candra, 2021). If not handled, the garbage that has accumulated in Final Disposal Site Air Dingin will cause a wider pile. The Padang solid waste management system which has been managed by the Department of Hygiene and Parks (DKP) since 1985, still adheres to the conventional waste management system. The level of waste service is not 100% all areas are served in addition, there is no separation of waste at the source and waste processing in its management system (Ruslinda et al., 2005). According to the result of Ruslinda (2005), shows the composition of waste from various waste sources in the city of Padang from the results of the research, food waste is 67.68 from domestic, 38.27 from Commercial, 34.39 from Institution, 9.90 from Industry, 14.3 from City Service

The Mayor of Padang, Mahyeldi Ansharullah, said that the local government is serious about managing waste. The proof is that in addition to a clean environment, the City of Padang has also won Adipura in a row in 2017 and 2018 (Candra, 2021). The basic problem in waste management in Padang City, he continued, cannot be separated from the completeness of facilities and infrastructure. For example, the government of Padang only has 35 units of dump trucks. While the need reaches 50 units. Armroll trucks need 54 units, and the new government has 38 units.

The City of Padang currently needs 213 garbage containers. However, the fact is that they only have 132 units. Likewise, the pick-up triper, Padang City only has 10 units of the 18 units needed (Candra, 2021). Furthermore, other needs are 39 units of motorized tricycles which have only been fulfilled by 33 units. Also, many other means are far from ideal. "We are always trying to improve it. Currently, we are asking for this assistance (means) through the Directorate General of Human Settlements, Ministry of PUPR," said Mahyeldi.

The Regional Government through the Environmental Service continues to make various efforts so that it is not polluted by waste (Tobari, 2021). However, this effort will not succeed if the behavior and culture of the community still views waste as unimportant. "The current condition is that we still find garbage scattered throughout. Therefore, public awareness

is needed about this waste problem," said Head of the Environmental Service, Mairizon, Saturday (18/9/2021).

Parfik and friends (2010) on FAO, Food waste that is generated during the process of making food and after food activities related to the behavior of sellers and consumers (Dewilda et al., 2019). The problem of food waste globally is of particular concern to be addressed in improving the country's environmental sustainability (Dewilda et al., 2019). Indonesia especially Padang City, the management and processing of food waste is still integrated with the municipal waste (Dewilda et al., 2019). UU No.18 yr 2008 sub.2 concerning waste management which contains food waste from restaurants belongs to the type of household waste, referred in sub.12 that everyone in managing household waste and waste similar to household waste is obliged to reduce and handle waste in an environmentally sound manner (Dewilda et al., 2019). Perda No.21 yr 2012 concerning waste management in Padang City, the community must participate in waste management (Dewilda et al., 2019).

Research in relation to the upcoming pandemic, namely Corona Virus 2019 (Covid-19) submitting research so that we intend to investigate the subject of time during this pandemic. The Covid-19 pandemic continues a very significant division in the world to face the nutritional safety risks of food, this pandemic is already facing several countries in implementing several population movements that bring full country testing to avoid some of these academies (Qian et al., 2020). However, much people feel uncomfortable when they have to stay at home and go out only for urgent needs such as buying food during Lockdown (Qian et al., 2020).

The first case of COVID 19 in Indonesia was reported on 2nd March 2020. Since COVID-19 is regarded as a serious health threat in Indonesia, the situation is evolving daily taking a turn for the worst of public emergency were declared by all the provinces in the time frame of March 13th – March 27th. The implementation of Lockdown is very close to people's daily lives, including the impact on behavior in eating habits, leaving food and even sustainable household consumption (Qian et al., 2020). Some people in buying and consuming food have changed the way they do it, they still make urgent purchases that are panicked or pressed with short-term risks for their future and are a decline in their behavior and habits in consuming food (Qian et al., 2020). Stress levels, feeling unhappy, and so on are a result of this impact pandemic (Qian et al., 2020).

Aware of their limitations in accessing the lives of customers, finally realizing that they have an urgent need so that this behavior they try to minimize all risks that occur, this perspective is formed by the urgency of this COVID-19 situation how consumers' interest in this awareness does not reduce their actions in food waste (Nusaka, 2020). Regional

quarantines and activity restrictions during the COVID-19 pandemic have resulted in a reduction in waste in public and commercial locations. However, an increase in the volume of waste occurs in households (Suriyani, 2020). Reducing activities outside the home encourages the production of waste at home. Let's count how many additional packs of ready-to-eat meals or snacks purchased online in a week? For example, when ordering a side dish package on the second day of fasting, there are at least 5 plastic wrappers for each type of side dish, and one extra crackle (Suriyani, 2020).

(Faren, 2021) analyzed the composition of household waste during covid-19 pandemic in Padang compared increased by 99% with conditions before the pandemic due to the increase in the composition of food waste which has a greater weight that has increased during the pandemic is food waste and plastic waste were grouped based on income level were carried out eight days in a row when the Large-Scale Social Restrictions (PSBB) were enacted. (Wahyudi, 2022) stated an environmental care foundation from Norway is CCF (Circular Connect Fondation) would help overcome the waste problem in Padang which reached waste 600 tons per day through the concept of utilizing and managing waste, justified by the statement by the head of the Norwegian CCF in Padang, Arswendy.

The AZWI (Alliance Zero Waste of Indonesia) website released on April 16, it stated that data released by various regions showed a reduction in daily waste generation as a result of this quarantine. In Bogor City there was a decrease in the volume of waste generation by 100 tons, in Denpasar City it decreased by 300 tons per day, and in Jakarta from a daily volume of 7,500 to 8,000 tons/day it decreased by 620 tons/day (Suriyani, 2020). According to Melly Amalia, YPBB's Campaign Manager, the reduction of waste from the commercial sector such as restaurants, shopping centers and tourism has decreased. But on the other hand, there is an increase in household waste due to changes in people's consumption patterns after the implementation of work from home policies and social restrictions (Suriyani, 2020).

The local governments in the Greater Bandung area (Bandung City, Cimahi City and Bandung Regency) (Suriyani, 2020). First, waste from commercial areas and street sweeping in Bandung City has decreased. The increase in waste, especially organic, occurs in the Waste Free Zone (KBS) where the RT/RW is doing the sorting. In general, the amount of waste transported to the landfill is the same as before. Second, in Cimahi City the amount of waste transported to the TPA is quite stable at 50-60 cycles per day. Third, in Bandung Regency the amount of waste, especially in rivers, according to the Environment Agency, has actually increased because it is being hit by floods. Looking at the data on the increase in household waste generation, the application of a zero waste lifestyle is believed to be increasingly

important (Suriyani, 2020). “Most people limit themselves to only doing activities at home. But to meet their consumption needs, they shop online with an increasing trend based on research data between 27-36 percent. Finally, the generation of waste such as single-use plastic packaging has increased,” added Melly.

TPB is one of many models that applies to understanding consumer behavior in various contexts (Coşkun & Yetkin Özbük, 2020). The main theory in this model is how individual interest is influenced by subjective norms, attitude, and Perceive behavioural control although TPB has extended models to the development for the capacity to predict the presence which has described the investigation of food waste behavior within the context of the household (Coşkun & Yetkin Özbük, 2020).

The result of previous research (Coşkun & Yetkin Özbük, 2020) an extended TPB constructs two theoretical, price consciousness and food taste which was hypothesized another would predict intention to reduce food waste (Coşkun & Yetkin Özbük, 2020). They are possible example increasing the explanatory power in this hypothesize (Coşkun & Yetkin Özbük, 2020) although we put an extended TPB, the other subsection is moral norm and quality of food waste prevention communication.

The other study (Nusaka, 2020) TPB theory determine household food waste generation, identifing four different stage with food consumption and wastage behaviours insights into attitudes and perceptions about food purchase, consumption and waste issues in global pandemic (Nusaka, 2020)

B. Research Statement

1. How does attitude affect household intention to reduce food waste behaviour?
2. How does subjective norm affect household intention to reduce food waste behaviour?
3. How does perceived behavioral control affect household intention to reduce food waste behaviour?
4. How does moral norm affect household intention to reduce food waste behaviour?
5. How does household intention to reduce food waste behaviour affect food waste behavior?

C. Research Objective

1. To examine the affect of attitude on household intention to reduce food waste behaviour?
2. To examine the affect of subjective norm on household intention to reduce food waste behaviour?
3. To examine the affect of perceived behavioral control on household intention to reduce food waste behaviour?
4. To examine the affect of moral norm on household intention to reduce food waste behaviour?
5. To examine the affect of intention to reduce food waste behaviour on food waste behavior?

D. Research Aims

1. For academics, it give the alternative theory for research reference about food waste behaviour.
2. For practitioners, the results of this study are expected to be useful as referenc and information regarding food waste behaviour.

E. Research Scope

The focus of the discussion in this research in line with the title and background that has been presented, the author analyzes the behavior of the society in food waste, especially Indonesian household in 2021 what time the covid-19 pandemic is still ongoing but not analyze a change in behavior that occurred before or during the pandemic. The author focuses on the respondent limit only on household because people in the household are not bound by a rule, they are required to care about food waste what is less cared by society that it is so dangers for them in daily activity effect indirectly as bad environment, global warming, etc

F. Systematic of Writing

A research must be written systematically, it is wrong an absolute requirement in the rules of scientific writing. Therefore writing the results of a study will look good if it is presented using systematic way. The systematics contained in writing research in the form of this thesis, as follows:

CHAPTER I : This chapter contains the introduction. This chapter is a description of the Background Behind the Problem, Problem Formulation, Research Scope, Rationale, Purpose and Benefits of Writing, Hypotheses, Research Methods and Writing Systematics.

CHAPTER II : Discusseing food waste behavior in household in Indonesia in terms of the strengthening of the TPB and then the moral norm on the intention to reduce household food waste

CHAPTER III : The Chapter III discusses the processing process of research on the dynamics of the process of food waste behavior in household on PLS analysis

CHAPTER IV: This chapter describes previously presented evidence by several journals and then reviewed to strengthen the construction of thinking and argument from this research itself

CHAPTER V: This chapter discusses the important points the relationship of all variables taken to be analyzed in the household element so that this research can help all societies in living together