Intention of reducing food waste among Indonesian Gen Z: The role of religious beliefs, financial attitudes, and consumption cultures

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Abstract The findings indicated a robust link between religious beliefs and intention (62.4%). The findings demonstrated a strong association of 62.4% between religious beliefs and intention. All factors demonstrated positive associations, underscoring their interrelated functions in shaping behavior. Religious beliefs significantly influenced Generation Z's to minimize food waste, highlighting the importance of religious values in behavioral formation. The predominant demographic of respondents was Muslim (85.63%) and Javanese (22.99%), including 63.79% women and 36.21% males, all between the age ranged of 18 to 28 years. Considering that these variables influenced behavior, including them in the policy-making process was imperative. The intimate connection between religious beliefs and behavioral intents highlights their joint influence, necessitating the consideration of both goals and religious convictions in strategy development. These findings underscored the significance of concentrating on the behaviors of Indonesia's young, the predominant group in the country. This emphasis was essential to develop policies that is enhanced the government's capacity to address environmental issues and reduced food waste.

Keywords: Youth behavior, Intention, Food waste, Correlation analysis

Introduction

The global focus on waste management began in the 1970s, with the Stockholm Conference in 1972 raising concerns about metal and plastic waste, which are difficult to decompose naturally (Meadows *et al.*, 2017). This concern

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deepened with reports from the United Nations Environment Programme (UNEP) in the 1980s and 1990s, highlighting the dangers of plastic waste in oceans and on land (UNEP, 1989). By the 2000s, a more robust global movement emerged, advocating for solutions such as recycling (Jambeck *et al.*, 2015; Thompson *et al.*, 2009). During this time, the global perspective focused on inorganic waste, which was challenging to manage.

However, in the early 2000s, concerns shifted from inorganic to organic waste, particularly food waste, recognized as a significant contributor to environmental pollution and global food insecurity (Martindale, 2010; FAO, 2011). Food waste contributed to economic losses, environmental damage, and moral challenges related to the distribution of global food resources (Parfitt *et al.*, 2010). According to Papargyropoulou *et al.* (2014), significant regions such as Europe and North America began addressing food waste through recycling and redistribution initiatives in the 2010s. Other nations soon followed this trend.

Food waste, a significant global issue, also occured in Indonesia, a country with a population of 227.52 million, ranking as the fourth largest population globally. According to a report by UNEP (2021), Indonesia was the largest producer of food waste in Southeast Asia, with an estimated food waste of 20.9 million tons per year. Several studies indicate that regions with high populations tend to produce high levels of food consumption, which correlates with the levels of food waste. Furthermore, the imbalance between high food demand and supply chains is an additional contributing factor (Gustavsson *et al.*, 2011; Scholz *et al.*, 2015; Vanham *et al.*, 2015). Supported by research from (Lee Burton *et al.*, 2019), which found that consumption patterns and wasteful attitudes towards impulsive food shopping in developing countries drive food waste.

Food waste in Indonesia has significant negative impacts across various sectors. First, the accumulation of food waste in landfills contributes to increased emissions of CO2, which in turn exacerbates global warming and air pollution. Second, it has been found that food waste accounts for 70% of global water waste used in agricultural processes. Third, food waste results in the waste of millions of gallons of petroleum used throughout farming and food distribution to consumers. Fourth, organic waste containing millions of bacteria can lead to pollution in both soil and water (BOD and COD) (Hendriadi and Ariani, 2020; Yudihanto *et al.*, 2013). Food waste significantly affects water quality for human life, contributing to health issues and serving as a source of contaminants harmful to ecosystems. Thus, it was crucial to reduce food waste (Pandey, 2021; Sial *et al.*, 2024).

The significant shift in consumption patterns and lifestyle changes have contributed significantly to the increase in food waste in Indonesia, particularly among the younger generation, known as Generation Z (those born between 1997 and 2012 or aged 19 to 28 in 2024). According to BPS, the population of Gen Z in Indonesia has reached 44.5 million (BPS, 2023), making them the majority demographic over the past five years. Gen Z's contribution to food consumption was substantial, and it was crucial to study behaviors that can significantly reduce food waste within this group. This research had the potential to contribute to environmental waste management by analyzing critical factors in reducing food waste among Gen Z. By engaging Gen Z as agents of change, who was often actively involved in environmental issues, this study aims to provide valuable insights for addressing the food waste problem in society.

Motivation, or intention, to reduce food waste had become a highly discussed issue in recent times. Numerous studies indicate that a strong intention to reduce food waste significantly contributes to environmental improvement and ecosystem health. Generally, the factors of attitude toward behavior, subjective norm, and perceived behavioral control proposed by Ajzen (1991) are recognized as the most significant influences on intention. However, research conducted by Damanik *et al.* (2024) reveals that food consumption, level of religious knowledge, and level of knowledge significantly influence food waste reduction intentions in Indonesia. These variables highlight a phenomenon of behavioral shifts occurring among the youth, particularly represented by Generation Z in this study. Therefore, in-depth and structured evidence is essential to further substantiate these findings.

Indonesia requires its citizens to follow a religion integral to their daily lives. Food consumption was a crucial indicator of religious identity (Tuhin *et al.*, 2022). Islam mandates adherenced to halal practices, Hinduism promoted specific and stringent dietary restrictions, and Buddhism forbids the consumption of animals (Li *et al.*, 2021). Religion could explicitly mitigate food waste by designating it as 'haram' or excessive consumption in Islam and identifying it as a 'sin' (Yetkin Özbük *et al.*, 2022). This suggested that religious values may affect individuals' intentions to minimize food waste, especially among those actively engaging in their faith (Mumuni *et al.*, 2018). This concept was reinforcing by the perspective that religion functions as a spiritual guide while also was influencing consumption behaviors and the environmental stewardship of younger generations.

The financial attitudes of Generation Z were directly associated with the effect of their practiced religion. The financial mindset profoundly influences food waste practices. Monetary incentives significantly influenced a person's purchasing capacity and the propensity for waste. This scenario suggested that an individual's income level correlated positively with their capacity to alter food choices and the propensity for food waste (Van der Werf *et al.*, 2019). The

objective of minimizing food waste corresponds with this since factors such as over-purchasing and price consciousness emerge as significant predictors of financial attitudes (Siaputra *et al.*, 2022).

Consumption cultures was the last predictor, and they are represented in the fashion or nutritional system that the younger generation accepts. According to this element, the conduct of Generation Z was fairly significant, and the causes vary depending on the level of knowledge and talents that they possess in the area of food management. The actions of members of Generation Z were a substantial contributor to this factor, as indicated by research carried out by Graham-Rowe *et al.* (2015) and (van der Werf *et al.*, 2019). The research conducted by Richter (2017) indicated that the behaviour of Generation Z with regard to the disposal of leftover food and the prevention of food waste was extremely low. As a consequence of this, they have a tendency to produce a significant amount of food waste. The eating culture of Generation Z, which was often high in sugar, carbs, and junk food, has emerged as a significant factor in the outcome.

Taking into consideration the explanation provided above, it was essential to investigate the ways in which religious beliefs, financial attitudes, and consuming cultures contributed to the goal of Generation Z to pay attention to the environment in order to limit the amount of food that wasted in Indonesia. One of the factors that might be used to anticipate terraculture was consumption cultures, which could be seen in the fashion or eating system that followed by newer generations. According to this element, the behaviour of Generation Z was fairly significant, and the causes vary depending on the level of knowledge and talents that they possess in the area of food management (Graham-Rowe *et al.*, 2015; van der Werf *et al.*, 2020). The inclination of Generation Z to address issues related to food waste and the disposal of leftover food was extremely low. As a consequence of this, they have a tendency to produce a significant amount of food waste. The eating culture of Generation Z, which is often high in sugar, carbs, and junk food, has emerged as a significant factor in the outcome.

The study aimed to examine how religious beliefs, financial attitudes, and consumer cultures affect Generation Z's environmental awareness and efforts to reduce food waste in Indonesia.

Materials and methods

Study area and participants

This research employed a mixed-method approach, integrated quantitative and qualitative analysis within a single study (Creswell *et al.*, 2007). The study

was carried out in many places across Indonesia to provide sufficient representation of the diverse population. The choice of place predicated on the varied social, economic, and cultural situations of the neighbourhood, which considered representative of the broader circumstances in Indonesia.

Data collection were done in 2023 using a hybrid methodology, encompassing both in-person interviews and the dissemination of online surveys. An online survey was sent to students at colleges throughout Indonesia, encompassing each major island (Sumatra, Java, Bali-Nusa Tenggara, Kalimantan, Sulawesi-Maluku, Papua). The emphasis was on Generation Z, those aged 19-28, who engaged and discerning regarding environmental concerns and consumer practices.

Study design

This research finding examined the attitudes and behaviours of Indonesia's youth towards food waste, defined as organic consumption remnants that were recyclable (Food and Agriculture Organisation, 2011). This study employed both primary and secondary data. The primary data was gathered using offline and online questionnaires to mitigate interpretive bias associated with the questionnaire that differ across respondents (Huyler and McGill, 2019). The offline survey was utilised face-to-face interviews to obtain comprehensive insights into respondents' perspectives on food waste management, and the online survey were enhanced to engage a wider audience.

Secondary data were sourced from several official entities, including reports from governmental organisations, scientific publications, and papers pertaining to waste management and consumption patterns (Bappenas, 2021; WWF Indonesia, 2019). The use of secondary data were corroborated and validated the outcomes of primary data analysis while offering a more extensive context for the study conclusions (Bowen, 2009).

The study sample comprised 348 respondents, selected on the representation of the targeted regions. The employed sampling approach was an incidental sampling, where in samples were randomly collected at the study site. This method is appropriated for studies with a wide and diverse population, as it aids in the selection of participants (Etikan, 2016). The target demographic comprised Indonesian Generation Z individuals aged 19 to 28 years, reflecting consumer behaviour trends and the potential for mitigating food waste (Cahyani *et al.*, 2022).

Statistical analysis

This study utilized the biplot method for statistical analysis, visualizing data in a multidimensional framework. The biplot method illustrated correlations among variables and respondents, hence improving comprehension of the data structure and interaction patterns identified in the study. This method is provided a comprehensive understanding of the younger generation's behavior toward food waste management and the determinants influencing their decisions to minimize food waste. Biplot analysis, a descriptive statistical technique, was utilized to visually depict data and variables inside a two-dimensional framework. This approach enabled an understanding of the characteristics of the variables and observations, as well as the relative positions among the observed objects concerning the analyzed variables. Four main interpretations of biplot analysis were considered: proximity or similarity among observed objects, where points close together indicated similar characteristics; diversity of variables, with short vectors near the center representing low variability and longer vectors indicating high variability; correlation among variables, where positively correlated variables appeared as lines pointing in the same direction, negatively correlated variables as lines in opposite directions, and uncorrelated variables as lines forming approximately a 90° angle; and the relative value of variables for an object, where alignment with a variable vector indicated above-average values for that variable. The variables analyzed included religious beliefs (X1: compliance with halal, dietary compliance, compliance with food portion sizes, and religious holidays), financial attitudes (X2: purchasing power, wastefulness, and savings), consumption cultures (X3: portion sizes, ability to purchase food, and consumption by family members), and the intention to reduce food waste (Y1: attempting not to waste food, trying to eat purchased food, attempting to produce food in moderation, and trying to utilize all food leftovers).

Results

Sociodemographic characteristics

The demographic profile of the sample revealed a significant female majority, with women representing 63.79% of the respondents, compared to 36.21% males. This gender distribution of implications for the study's findings, particularly if gender played a role in the topic under investigation. Age-wise, the samples were heavily concentrated in the early twenties, with the largest cohorts being 22 years old (25.00%), 23 years old (23.56%), and 21 years old (23.28%). This age grouped collectively account for over 70% of the

respondents, indicating that the study largely reflected the perspectives of individuals in their early adulthood.

In terms of religious affiliation, the samples were predominantly Muslim, with 85.63% identifying as adherents of Islam. Protestantism and Catholicism represent 11.21% and 2.30%, respectively, while Buddhism (0.57%) and Hinduism (0.29%) practiced by a very small minority. This religious breakdown consistent with broader national demographics in Indonesia, where Islam was the dominant religion.

The ethnic composition of the samples was highly diverse, with Javanese being the largest ethnic group at 22.99%, followed by Batak (18.10%), Melayu (9.20%), and Bugis (8.33%). These groups reflect Indonesia's ethnic diversity, particularly from Sumatra and Java, regions known for their significant populations. Other ethnicities such as Sunda (6.03%), Minang (4.60%), and Rejang (4.02%) are also well represented. Additionally, a broad array of smaller ethnic groups, including Aceh, Tionghoa, Dayak, and others, each made up less than 2% of the sample.

The demographic spread of this sample, particularly its gender, age, religious, and ethnic composition, offered a comprehensive view of a young, diversed population in Indonesia. Such diversity was crucial for understanding the broader socio-cultural contexts that influenced the research outcomes, especially in studies related to behavior, attitudes, or entrepreneurial intentions across different demographic groups.

B-Plot analysis

The total number of respondents was 348, providing a robust dataset. Based on the average data and variability of the responses, it can be seen that out of the four variables, religion, and intention had closely aligned values when compared to financial and consumption. It served as an initial indication that the relationship between the religious and intention variables was quite strong as the relationship between finances and consumption.

 Table 1. Descriptive Statistic

Descriptive Statistics						
	Mean	Std. Deviation	Analysis N			
Religious_Beliefs	4,2924	,57989	348			
Financial_Attitudes	3,8345	,70789	348			
Consumption_Cultures	3,9818	,63121	348			
Intention_to_Reduce_Food_Waste	4,2787	,57964	348			

The descriptive statistics for the sample of 348 respondents provided insightful observations across four key variables: Religious Beliefs, Financial Attitudes, Consumption Cultures, and Intention to Reduce Food Waste. The highest mean scores were recorded for Religious Beliefs (4.29) and Intention to Reduce Food Waste (4.28), indicating that respondents were generally hold strong religious beliefs and demonstrate a significant intention to reduce food waste. The standard deviations for both variables were nearly identical at 0.57989 and 0.57964 respectively, suggesting moderate variability in the responses.

In contrast, Financial Attitudes had slightly lower mean of 3.83, implying a more neutral stance among respondents toward financial matters, accompanied by a higher standard deviation of 0.70789, reflecting a broader range of opinions in this area. Consumption Cultures also showed a relatively neutral position with a mean of 3.98 and a standard deviation of 0.63121, indicating moderate consistency in how respondents view consumption behaviors.

		Religio us_Beli efs	Financial_ Attitudes	Consumptio n_Cultures	Intention_to_Red uce_Food_Waste
Corre	Religious_Beliefs	1,000	,422	,582	,624
lation	Financial_Attitudes	,422	1,000	,629	,413
	Consumption_Cultu	,582	,629	1,000	,524
	res Intention_to_Reduc e_Food_Waste	,624	,413	,524	1,000

 Table 2. Correlation matrix

The correlation matrix highlighted several notable relationships between the variables. Religious beliefs are strongly correlated with consumption cultures (0.582) and intention to reduce food waste (0.624), suggesting that religious convictions may significantly influence ethical behaviors like reducing food waste. Financial attitudes were strongly correlated with consumption cultures (0.629) but showed a more moderate relationship to reduce food waste (0.413). Consumption cultures had moderately correlated with intention to reduce food waste (0.524), indicated that how individuals view consumption also played a role in their willingness to reduce waste.

Based on the results of the correlation test, it can be seen that the relationship between religion and intention was 62.4%, and the relationship between financial and consumption was 62.9%. It indicated a strong correlation between religion and intention and between finance and consumption. On the other hand, the relationship between intention and finances was 41.3%, and the correlation between intention and consumption was 52.4%. It showed a

correlation between intention and financial as well as consumption, but it was not as strong as with religion.

Overall, the matrix revealed that these variables are interconnected, with religious and financial beliefs playing pivotal roles in shaping consumption behaviors and intentions regarding food waste reduction. The most robust relationships existed between religious beliefs and intentions toward ethical behaviors, pointing to the potential influence of personal beliefs on environmentally responsible actions.

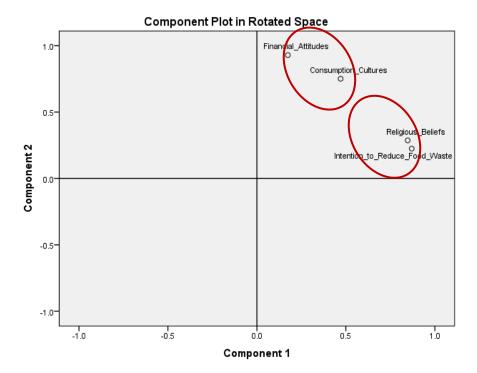


Figure 1. Bi-plot analysis among variables

Based on the biplot graph, it observed that all four variables are located in the same quadrant ($<90^{\circ}$), indicating a positive correlation among them. Additionally, the proximity between intention and religion and between finances and consumption suggested that these pairs of variables exhibited a strong positive correlation. It is closely related among the variables highlighted the interconnectedness of their influences.

	Component	
	1	2
Religious_Beliefs	,587	-,175
Financial_Attitudes	-,345	,806
Consumption_Cultures	,010	,475
Intention_to_Reduce_Food_Waste	,641	-,248

Table 3. Component score coefficient matrix

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization

The component score coefficient matrix derived from the principal component analysis (PCA) illustrated the representation of four variables across two dimensions: Component 1 and Component 2, following the Varimax rotation method with Kaiser normalization. To determine the assignment of each variable to a component, the coefficients for each variable within the respective components are compared; a variable placed in the component corresponding to the higher coefficient value. As shown in the table, "Religious Beliefs" associated with Component while "Financial Attitudes" 1. and "Consumption Cultures" linked to Component 2. The values in the table reflect the coefficients, indicating the contribution of each variable to their assigned components, thereby elucidating their roles in the underlying structure of the data. This analysis provided valuable insights into how these variables interact and contribute to the broader context of the study.

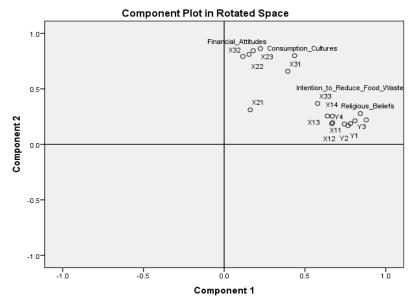


Figure 2. Bi-plot analysis among manifest variables

The component plot in rotated space illustrated the distribution of variables based on their relationships with two extracted components, often referred to as factors in principal component analysis (PCA) or factor analysis. The plot showed the relative positioning of various variables, such as X13, X14, X12, and X11, in relation to the two components represented on the x-axis (Component 1) and y-axis (Component 2). The variables grouped into broader categories, indicating their correlation with specific latent factors. For instance, variables such as X33 positioned within the Intention to Reduce Food Waste group, however, the main variable did not correlate strongly, X33 was not included in the discussion range. In addition, X13, X14, X12, X11, Y1, Y2, and Y3, clustered around Religious Beliefs and the Intention to Reduce Food Waste. These clusters indicated that the variables within each group had similar loadings on the respective components and were likely to be interpreted as representing the same underlying construct.

Discussion

Sociodemographic characteristics toward the intention to foodwaste reduction

The findings revealed a diverse sample composition across Indonesia. The high proportion of women in the sample did not only indicate a significant role in shaping behaviors aimed at reducing food waste but also highlights their higher participation and concern for food waste than men. According to Bullough *et al.* (2022) and Tabassum and Nayak (2021), the dominance of female respondents could offer specific insights into how their behavior influences the formation of intentions to act. This suggested that women's consumption patterns were not just vital, but also was commendable in controlling waste, and we should appreciate their efforts in this area.

From the perspective of age distribution, the dominance of the 21 to 23 age group, which represents Generation Z in Indonesia, underscored their potential to make independent decisions, including lifestyle choices that impact environmental sustainability. According to Jayatissa (2023) and Seemiller and Grace (2024), generation Z was aware of their ability to manage themselves and determined their desired lifestyle. This promising potential of Generation Z to contribute to the country's sustainability through their minor roles as they take control in Indonesia's demographic bonus era is a beacon of hope for the future.

It was undeniable that Indonesia as a religious country with six officially recognized religions. Based on the demographic distribution, the majority of respondents were Muslim (85.63%), indicating that religious norms did not just essential but also influential in shaping the younger generation's behavior

regarding food waste. Religious beliefs often influence consumption habits and ethical decision-making (Mathras *et al.*, 2016). In behavioral studies conducted by Jayatissa (2023). Islamic principles such as social responsibility and ethical consumption was significantly shape an individual's attitudes and actions, demanding our respect and understanding for these norms.

The ethnic diversity presented in the sample, with Javanese being the majority at 22.99%, followed by Batak, Melayu, and Bugis, reflects the respondents' diverse cultural backgrounds. Ethnicity was strongly correlates with traditional practices (Rizova, 2021), and different ethnic groups may demonstrate varying motivations based on cultural values and principles of independence (Holmes, 2020; Wong, 2023).

Religious Beliefs as a Key Factor in Shaping the Intention to Reduce Food Waste Among Indonesian Gen Z

The correlation results demonstrated a robust relationship between religion and Gen Z's intention to reduce food waste. The research by Agarwala *et al.*, (2019) supports this finding, highlighting the significant role of religion in shaping consumer behaviour. Teng *et al.* (2023) stated that in Taiwan and United States with 483 samples showed that religious beliefs enhance divine retribution, divine rewards, and religious food waste prevention practices. Many religions advocated for reducing food waste by linking it to their core values, making it easier to reach the conscience of individuals, including Gen Z. The majority of Gen Z in this study are Muslims, and the values taught in Islam could encourage young people to be more environmentally conscious (Naldi *et al.*, 2024), this section discussed their adherence to halal guidelines, dietary compliance, food portion sizes, and observance of religious holidays, which are the most tangible representations. The result of the internal study illustrated by the Bi-plot in Figure 2.

Compliance with halal

Quality food is defined as food that meets hygiene standards and is halal. The Qur'an and Hadith explicitly outline the concept of halal. This illustrates that Islam and health fundamentally share a common objective for the betterment of humanity (Andriyani, 2019). This study reveals that Generation Z tends to choose halal food that is of excellent quality and does not waste it. Halal food includes not only the food components but also the ethical principles of consumption. According to Suleman *et al.* (2021), individuals engaged in halal consumption practices tend to be more aware of the environmental impacts of

food waste they generate and are less likely to waste food. Similarly, a study by Billah *et al.* (2020) and Pradana *et al.* (2024) indicated that consumers focused on halal food tend to plan their purchases more effectively. Through religious values, environmental awareness, responsible consumption behaviors, and educational initiatives, individuals can contribute to the reduction of food waste. With an increasing number of young individuals interested in halal consumption, there was a significant opportunity to promote more sustainable and ethical consumption patterns within society.

Dietary compliance and compliance with food portion sizes

The manifest variable indicating that humans had balanced a diet influenced by religion was closely related to the plan to reduce food waste. This variable showed the extent to which Gen Z followed a balanced diet as their faith recommends. This could also be linked to the nutritional factors advised by religion. Many religions, such as Islam and Hinduism, had guidelines for their followers when choosing healthy foods. Islam encourages a healthy diet and fasting daily, while Hinduism advocated for vegetarianism, and mindful eating practices also contribute to a balanced diet.

The reality showed that Gen Z chooses unhealthy foods due to stress factors. Haryana *et al.* (2023) proves that Generation Z, who were currently teenagers and students, cope with stress by eating uncontrollably due to emotional influences, which able to affect their nutritional status if it continues. This was detrimental to them in maintaining their diet, which accumulated in reducing food waste. Thus, religion was crucial in guiding individuals toward an appropriate eating pattern. A study by (Chouraqui *et al.* (2021) discussed this in more detail, showing that individuals who adhere to religious dietary advice tend to comply with healthy eating patterns. Mindful eating and portion control can reduce the amount of food wasted. When Gen Z had a better understanding of this, they able tend to cook or buy food in balanced portions, minimizing the possibility of food waste.

Religious holidays

Religious holidays in Indonesia did not just celebrations, they were significant cultural events that contribute significantly to the volume of food waste generated. Celebrations such as Idul Fitri, Christmas, and Nyepi are often characterized by the tradition of sharing food with others. Although these activities reflected gratitude for these holidays' presence, they were also leaded to significant environmental issues and waste. The youth are also part of this phenomenon, with many individuals celebrating these occasions with their families and purchasing food in large quantities, frequently resulting in excess waste. Generation Z perceived these days as special occasions and contributes substantially to food waste.

Damanik *et al.* (2024) showed that Indonesian religious holiday celebrations characterized by excessive food preparation, leading to food waste and an increased risk of environmental pollution. Specifically, during holidays like feast days and Ramadan, food waste increased dramatically (Baig *et al.*, 2022). Religious holiday festivals, such as Chinese New Year, also contributed significantly to this issue due to a lack of public awareness regarding waste reduction.

Therefore, young people is needed to understand the importance of managing food waste, beginning with their holiday meal preparation habits. By setting limits on this issue, such as calculating the portion of each family member's needs, they can significantly reduce food waste and contribute to a more sustainable future. This did not just a problem, but an opportunity for change. Your actions can make a difference, instilling a sense of hope and motivation for a more sustainable future.

The findings indicated a significant relationship between religious beliefs and intention (62.4%) as well as financial attitudes and consumption cultures (62.9%). Additionally, a correlation of 41.3% was observed between intentions and finances, alongside a 52.4% correlation between intentions and consumption. All four variables showed positive correlations, suggesting that they are linked in shaping behaviour. The results indicated that faith-based beliefs play a crucial role in shaping the younger generation's motivation to minimise food waste. The significance of these factors in influencing behaviour underscores the necessity of incorporating them into policy development. The strong connection between intention and religion indicates that these variables are especially impactful. These insights offered valuable direction for those involved in policymaking and practice as they strive to minimise food waste. Analysing and tackling the connections among religions enables the formulation of more impactful strategies to encourage sustainable behaviours and minimise food waste, ultimately aiding in environmental preservation. The findings of the study highlight the necessity of taking into account the behaviours of Indonesia's youth, the nation's largest demographic, when formulating strategies aimed at enhancing government oversight of food waste and addressing environmental disruption.

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