Research Article

Concern, Intention and Food Waste Behaviour: The Intention-Behaviour Gap Among Households In Kuala

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Abstract
Household was reported to contribute the most to food waste. Food waste in households is shaped not only by demographic factors, but also by behaviours, intentions and attitudes towards food use and waste. Thus, this study aims to examine the intention–behaviour gap related to food waste practices among households in Kuala Lumpur, Malaysia. The study will investigate the relationship between concern about the environmental and social implications of food waste and individuals' intention to reduce waste and their actual waste behaviour. Using a stratified random sampling approach based on residential accommodation types and income classifications, an online questionnaire was distributed to residents' WhatsApp and Facebook groups. A total of 302 households completed the survey. The collected data were analysed using SPSS version 26. Pearson's correlation analysis was conducted to determine relationships between concern about food waste implications, intention not to waste food, and self-reported food waste behaviour. A moderate and significant positive correlation was found between concern about the implications of food waste and the intention not to waste ($r = 0.575$, $p < 0.001$). However, neither concern about food waste implications ($r = 0.104$, $p = 0.071$) nor intention not to waste food ($r = -0.041$, $p = 0.473$) showed significant associations with actual household food waste. These findings reveal a substantial gap between pro-environmental intentions and daily practices. Hence, the

study highlights the need for targeted behavioural interventions and supportive policies that go beyond raising awareness to bridge this gap. Insights from this study can inform urban waste reduction strategies, policy development, and public education campaigns in Malaysia and similar urban contexts.

Keywords:
Food waste, environmental concern, household food waste, intention-behaviour gap, Malaysia

1 Introduction

The growing challenge of food waste has become increasingly critical in urban settings, where rapid economic development and lifestyle changes contribute to unsustainable consumption and disposal patterns. Approximately 8.3 million metric tons of food were wasted annually in Malaysia, with households accounting for over 30% of this volume (United Nations Environment Programme [UNEP], 2024; Jereme *et al.*, 2016). In Kuala Lumpur alone, per capita food waste exceeds 250 kg per year, placing substantial pressure on landfill systems, municipal services, and national food security efforts. Household food waste reflects not just resource inefficiency, but also raises ethical and social concerns, as discarded food could help alleviate hunger and malnutrition.

Although awareness campaigns and educational interventions have increased public understanding of food waste, studies continue to report a troubling disconnect between consumers' intentions to reduce waste and their actual behaviours (Phooi *et al.*, 2022; Stancu *et al.*, 2016). Many studies express concern about the environmental and economic consequences of food waste, yet continue to engage in wasteful practices due to convenience, time constraints, or ingrained habits (Schanes *et al.*, 2018; Graham-Rowe *et al.*, 2014). This disconnect is referred to as the intention–behaviour gap, wherein strong pro-environmental attitudes and intentions fail to translate into consistent action.

While several studies have explored consumer knowledge, attitudes, and intentions toward food waste, fewer have systematically examined whether such intentions predict actual household waste behaviours, particularly within the Malaysian context. Moreover, limited research has applied behavioural theories, such as the Theory of Planned Behaviour (TPB) (Ajzen, 1991), to assess this gap empirically in Southeast Asia.

Thus, this study addresses three key research questions:

1. To what extent does concern about food waste influence intention not to waste?
2. Does concern about food waste significantly reduce actual household food waste?
3. Is there a significant relationship between intention not to waste and actual household food waste behaviour?

Drawing on the conceptual framework by Janssens *et al.* (2019), this study investigates whether the intention–behaviour gap is evident among Malaysian households. By analysing correlations between concern, intention, and reported waste patterns, this

research contributes to the development of targeted interventions that move beyond awareness to behavioural change.

2 Literature Review

2.1 Food Waste

Food waste is defined as edible food that is discarded at various stages of the supply chain due to spoilage, over-purchasing, or improper handling, including at the consumer level (Packiyadhas *et al.*, 2024). In Malaysia, food waste is a growing environmental and social concern, with an estimated 38% of total food waste generated at the household level (Jereme *et al.*, 2016). This waste has a significant impact on greenhouse gas emissions, resource depletion, and landfill overcapacity (Scherhaufer *et al.*, 2018; UNEP, 2024). Additionally, food waste represents a lost opportunity to combat food insecurity, particularly among urban low-income households (Chinie *et al.*, 2021).

Food waste also entails a water and energy footprint, exacerbating environmental degradation (Marston *et al.*, 2021). Despite governmental efforts to raise public awareness, actual reduction in food waste at the household level remains limited, suggesting that broader behavioural and structural interventions are needed (Azman *et al.*, 2024).

2.2 Food Waste at the Household Level

Households are globally recognised as one of the primary sources of food waste. Studies from Europe and the U.S. show that household-level behaviours, such as poor planning, misunderstanding expiry dates, and excessive bulk buying, lead to substantial waste (González-Santana *et al.*, 2022; Stancu *et al.*, 2016). In Malaysia, households discard approximately 8,745 tonnes of food daily (Jereme *et al.*, 2016). Existing research often focuses on descriptive patterns but rarely examines the behavioural forces behind them.

Although studies have linked food waste to income, household size, and education (Adam *et al.*, 2022; Grasso *et al.*, 2019), the findings remain mixed. Some argue that high-income households waste more due to their greater purchasing power (Diana *et al.*, 2024), while others highlight waste among low-income groups as a result of limited storage or inadequate planning (Porpino *et al.*, 2015). These contradictions reveal a gap that can be addressed through behavioural studies tailored to Malaysia's urban socio-cultural landscape.

2.3 Concerns about Implications of Food Waste

Past studies by Attiq *et al.* (2021) and Qi and Roe (2016) highlighted concerns over the environmental, ethical, and economic impacts of food waste. Concerns can also lead to intention, but factors such as habits, time constraints, or convenience hinder people from executing their intended action willingly (Shan *et al.*, 2024). Intention further strengthens with emotions such as guilt and regret (Chakraborty & Mattila, 2024);

unfortunately, in the absence of systemic support, their efforts often fail to produce lasting outcomes. Therefore, it is essential to introduce interventions that effectively close the concern-action gap, which extend beyond awareness campaigns (Schanes *et al.*, 2018; Obuobi *et al.*, 2023).

2.4 Intention Not to Waste Food

Ajzen (1991) introduced the Theory of Planned Behaviour (TPB) to explain and predict human actions. The theory recognised behavioural intention as a key predictor of actual behaviour. Meanwhile, Ananda *et al.* (2021), Russell *et al.* (2017), and Graham-Rowe *et al.* (2014) concluded that meal planning, portion control, managing leftovers, and mindful shopping can influence household intentions to reduce food waste. Additionally, factors such as external barriers, ingrained habits, behavioural inertia, conflicting goals, and low perceived control can influence intention and actual behaviour (Sheeran, 2002). Research by Srivastava *et al.* (2023) and Janssens *et al.* (2019) confirms that factors such as taste preferences, social norms, and time constraints often weaken behavioural intentions not to reduce food waste. Together, these influences reduce the likelihood of follow-through, indicating that even strong intentions may not lead to consistent action when competing motivations are present.

2.5 The Intention-Behaviour Gap in Food Waste Research

Schanes *et al.* (2018) and Graham-Rowe *et al.* (2014) emphasised disconnections between pro-environmental intentions and actual behaviour, particularly in household food waste. However, much of this research has been conducted in Western contexts. Studies focusing on urban Malaysian households are still sparse and often lack statistical testing of these behavioural gaps.

Furthermore, few studies incorporate an integrated framework that considers the influence of both attitudinal (including concern) and intentional variables on actual behaviour related to food waste (Al Mamun *et al.*, 2024; Ng *et al.*, 2021; Kim *et al.*, 2020). Meanwhile, Janssens *et al.* (2019) apply such a framework in the Netherlands, although its applicability to culturally diverse, urbanised Southeast Asian contexts remains underexplored.

This study fills this gap by empirically testing the relationships between concern about implications of food waste, intention not to waste food, and actual food waste behaviour in a Malaysian context, thus contributing to a more nuanced understanding of the intention–behaviour gap in household sustainability practices.

2.6 Theoretical Framework and Hypothesis Development

This study adopts the TPB introduced by Ajzen (1991) as its foundational framework. TPB posits that behavioural intention, which is influenced by attitudes, subjective norms, and perceived behavioural control, is the most immediate predictor of actual behaviour. In the context of household food waste, concern about its consequences functions as a key attitudinal driver influencing the intention to reduce waste. Intention, in turn, is posited as a direct precursor to actual food waste behaviour.

This study adapts the framework proposed by Janssens *et al.* (2019), which examined the relationship between food waste concern, intention, and behaviour in the Netherlands. By applying this model to Malaysia's urban context, the study investigates whether these associations hold across varying income levels and cultural norms. The conceptual model is presented in Figure 1.

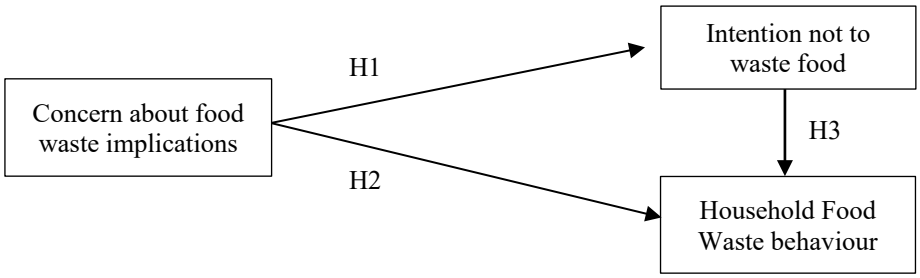

Figure 1: Conceptual Framework in Investigating Household Food Waste (Janssens *et al.*, 2019)

2.6.1 Relationship between concerns about food waste and intention not to waste

Concern about food waste can shape personal values and evoke guilt, which often drives behavioural intentions (Attiq *et al.*, 2021; Qi & Roe, 2016). Environmentally and ethically conscious consumers are more likely to engage in waste-reducing behaviours such as meal planning (Stancu *et al.*, 2016; Visschers *et al.*, 2016). However, concern alone is often insufficient to prompt action, particularly when disrupted by habitual routines or convenience (Schanes *et al.*, 2018). Drawing on TPB, we hypothesise:

> *H1:* Individuals with stronger concerns about food waste are more likely to express the intention not to waste food

2.6.2 Relationship between concern about food waste and amount of food waste

While concern is crucial for awareness, its effect on behaviour is less clear. Previous studies indicate a weak or non-significant relationship between concern and actual food waste due to intervening factors like habits, time constraints, and socio-cultural norms (Tucker & Farrelly, 2016; Neff *et al.*, 2015; Graham-Rowe *et al.*, 2014). In the Malaysian urban context, understanding whether concern alone can reduce actual waste remains an empirical question. Hence, the second hypothesis is proposed:

> *H2:* Individuals with stronger concerns about food waste will report lower levels of household food waste

2.6.3 Relationship between intention not to waste and amount of household food waste

The TPB asserts that intention is the strongest predictor of behaviour. However, the intention–behaviour gap has been widely documented in sustainability literature (Schanes *et al.*, 2018; Sheeran, 2002). Despite strong intentions, individuals often fail to reduce food waste due to habitual behaviours, impulsive buying, and poor meal planning (Obuobi *et al.*, 2023; Ahmed *et al.*, 2021). This raises the question of whether intentions lead to measurable outcomes:

H3: Individuals with strong intentions not to waste food will report lower levels of household food waste

This theoretical framing allows the study to test whether behavioural concern and intention reliably predict actual food waste behaviour, offering insight into whether awareness and intention translate into action in Malaysian households.

3 Methodology

3.1 Research Design

A quantitative, cross-sectional survey design was adopted to investigate the relationships between household concern about food waste, intention to avoid waste, and actual food waste behaviour. The conceptual model and hypotheses were informed by the Theory of Planned Behaviour (TPB). To ensure demographic diversity and representation across income groups, a stratified random sampling method was used. Stratification was based on residential zones in Kuala Lumpur, specifically low-cost flats, medium-cost housing, and private residences, which align with the socio-economic classifications defined by the Department of Statistics Malaysia (DOSM).

3.2 Sampling Procedure

The sample frame was designed to include three categories of Malaysia's income groups, as defined by the DOSM: the bottom 40% (B40), the middle 40% (M40), and the top 20% (T20). The stratified random sampling approach ensured that the questionnaire was proportionally distributed across the aforementioned categories: 40% B40, 40% M40, and 20% T20. This sampling procedure enhances the external validity of the findings, allowing for generalisations about urban Malaysian households. Respondents were recruited through neighbourhood Facebook and community WhatsApp groups to maintain randomness within each stratum.

3.3 Instrumentation

The questionnaire was adapted from validated tools used in previous studies on food waste (Schanes *et al.*, 2018; Principato *et al.*, 2015; Stefan *et al.*, 2013). However, the questionnaire was developed in both Malay and English to enhance comprehension and inclusivity, with four sections: (1) demographic background, (2) concern about food waste implications, (3) intention not to waste food, and (4) self-reported household food waste behaviour. Items for concern and intention were measured using a 5-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree). Household food waste behaviour items used a 5-point frequency scale, ranging from 1 (not at all) to 5 (more than half).

3.4 Pilot Study and Validation

Prior to full deployment, the questionnaire was reviewed for content validity by a panel of experts in foodservice management, consumer behaviour, and environmental sustainability. A pilot study was conducted with 50 respondents in Selangor to assess

the reliability and clarity of the measures. The internal consistency for the constructs measuring concern about food waste implications and actual household food waste behaviour exceeded the accepted threshold (Cronbach's alpha > 0.70). The construct for intention not to waste food recorded a Cronbach's alpha of 0.69, which is marginally below the conventional cutoff. This slight deviation may be due to the limited sample size of the pilot study, which can affect the stability of reliability estimates. Overall, the pilot results demonstrate that the questionnaire possesses acceptable reliability and is suitable for use in the main study, in line with the standards recommended by Sekaran and Bougie (2016).

3.5 Data Collection Procedure

The validated questionnaire was converted into a Google Form and disseminated online between February and April 2022. To ensure ethical compliance, a clear informed consent statement was included at the start of the survey. Participation was voluntary, and no personal identifiers were collected.

The online questionnaire was distributed explicitly via WhatsApp and Facebook groups associated with targeted residential areas in Kuala Lumpur, including low-cost flats, medium-cost housing, and private residential communities. This targeted outreach ensured stratified representation aligned with the sampling design.

3.6 Data Analysis

A total of 302 complete responses were obtained. Data were transferred to SPSS Version 26 for cleaning, recoding of negatively worded items, and subsequent statistical analysis. Descriptive statistics were used to summarise respondent profiles and mean scores for the key constructs. Inferential analysis was performed using Pearson's correlation to test the strength and direction of relationships between the independent variables (concern and intention) and the dependent variable (household food waste behaviour). Statistical significance was evaluated at $p < 0.05$ and $p < 0.001$ levels. The statistical analysis approach followed guidance by Pallant (2020) and aligns with best practices in behavioural research.

3.7 Ethical Considerations

This study and its consent procedure were reviewed and approved by the university Research Ethics Committee (Ref. No.: REC/12/2021 (MR/1013)). Respondents were informed of the study's purpose, their voluntary participation, and confidentiality measures. No incentives were offered, and data were used solely for academic research purposes.

4 Findings

4.1 Respondent Demographics

A total of 302 responses were gathered. Table 2 summarises the background of the respondents. The majority of participants were female (76.8%), predominantly Malay

(94.7%), and between the ages of 21–30 (50.3%). Most held a bachelor's degree (56%) and belonged to the B40 income category (60.5%). Household size varied, with 31.5% living alone and 24.6% residing in households with three to four children. This demographic diversity reflects a wide representation of urban households in Kuala Lumpur, enhancing the relevance of the study's findings.

Table 2: Characteristics of the respondents

Characteristics		Frequency (n)	Percentage (%)
Gender	Female	232	76.8
	Male	70	23.2
Race	Malay	286	94.7
	Chinese	5	1.7
	Indian	3	1.0
	Others	8	2.6
Age	< 21 years	45	14.9
	21 – 30 years	152	50.3
	31 – 40 years	77	25.5
	41 – 50 years	12	4.0
	51 – 60 years	6	2.0
	> 60 years	10	3.3
Level of Education	Secondary school	26	8.6
	Diploma	85	28.1
	Degree	169	56.0
	Master	18	6.0
	PhD	4	1.3
Household Income	RM3,860 and less	183	60.5
	RM3,861 – RM8,319	77	25.5
	More than RM8,319	42	13.9
Household Size	Single person household	95	31.5
	Households without kids	31	10.3
	Household with 1 – 2 children	58	19.2
	Household with 3 – 4 children	74	24.6
	Households with five or more children	44	14.6
Age of kids within Households	Under 5 years old	40	13.2
	Between 5 and 10 years old	39	8.6
	Between 10 and 15 years old	70	16.9
	Older than 20 years old	89	22.2
	No kids or no kids who live at home	118	39.1

(n = 302)

4.2 Concern about Food Waste Implications

Table 3 provides the results of the mean score and standard deviation of the concern about food waste implications. Respondents reported high concern regarding the environmental and social implications of food waste. The highest mean values were recorded for concerns about environmental impact (M = 4.05 ± 0.77) and resource distribution (M = 4.00 ± 0.73), indicating awareness of broader consequences. However,

the lowest score was for the item "I have enough time to worry about the amount of food wasted" (M = 3.50 ± 0.84), suggesting that time constraints may hinder active reflection or action.

The findings of this study are in agreement with past studies that suggest that people are already aware of the aftereffects of food waste towards the ecosystem (Purwanto *et al.*, 2023b; Chinie *et al.*, 2021) and world resources (Purwanto, *et al.*, 2023a). In addition, continuous awareness programmes conducted through broadcast media such as television, radio, newspapers, and social networks may contribute to the findings.

On the contrary, despite concerns regarding the amount of food wasted, they had a short time to consider the reported amount of wasted food, possibly due to their busy schedule. This aligns with findings by Shutters *et al.* (2022), who noted that urban residents, facing high living costs and time scarcity, often resort to eating out or buying food in bulk, which may contribute to increased waste.

Table 3: The mean score and standard deviation of concern about food waste implications

Code	Items	Mean	SD
CFW1	I worry about the environmental impact of the food that I throw away	4.05	0.77
CFW2	I worry about the impact of my food waste on the distribution of resources in the world	4.00	0.73
CFW3	I worry about the amount of food that I throw away	4.05	0.80
CFW4	I know what kind of food I throw away	4.09	0.75
CFW5	I have enough time to worry about the amount of food wasted	3.50	0.84

Note: SD is a Standard Deviation, (n = 302)

4.3 Intention Not to Waste Food

Table 4 summarises the results of the descriptive analysis of the intention not to waste. Participants expressed strong intentions to reduce food waste, particularly emotional drivers such as guilt (M = 4.38) and goal-setting (M = 4.28). These findings are supported by prior literature, which suggests that guilt and ethical awareness are strong motivators of waste-reducing behaviour (Chakraborty & Mattila, 2024; Ma *et al.*, 2023). However, intention alone was not sufficient to reduce actual waste, as shown in subsequent sections.

Table 4: Descriptive analysis for intention not to waste

Code	Items	Mean	SD
INTW1	I intend not to throw food	4.14	0.81
INTW2	My goal is not to throw food away	4.28	0.66
INTW3	I will try not to throw food away	4.28	0.76
INTW4	I feel guilty when I throw away food	4.38	0.75
INTW5	I know exactly how much food I throw away every day	3.79	0.89

Note: SD is a Standard Deviation, (n = 302)

4.4 Household Food Waste Behaviour

4.4.1 Food Category

Table 5 presents the amount of food wasted across different food categories. The results showed that food items most frequently wasted were vegetables (M = 2.50) and bread/bakery products (M = 2.47), followed by dairy products (M = 2.21). In contrast, meat (M = 1.90) and fish (M = 1.92) were the least discarded. This pattern is consistent with the perishability of fresh produce and the common Malaysian dietary preference for freshly cooked meat and fish.

Table 5: Descriptive Analysis for Household Food Waste Behavior

Food Items	1	2	3	4	5	M	SD
Fresh fruits	108	100	54	25	15	2.13	1.14
Vegetables	67	106	60	47	22	2.50	1.20
Dairy product	99	103	52	32	16	2.21	1.16
Meat	169	61	24	29	19	1.90	1.25
Fish	164	59	36	25	18	1.92	1.23
Bread and Bakery product	67	109	64	43	19	2.47	1.21
Cans and Tins product	123	97	43	28	11	2.03	1.11

Note: M refers to mean; SD refers to Standard Deviation; 1 = "Not at all"; 2 = "Less than a tenth"; 3 =" More than a tenth but less than a quarter"; 4 =" More than a quarter, less than a half; 5 =" More than half", (n = 302)

4.4.2 Reasons for Food Wasting

Table 6 presents the mean and standard deviation for reasons behind food waste. The most commonly cited reasons for food waste were expired or spoiled food (M = 0.89) and food with mould (M = 0.77). Leftovers (M = 0.58) were also a frequent contributor. Fewer respondents cited personal dislike or unmet expectations as reasons for discarding food.

Table 6: Descriptive analysis for reasons for wasting food

Code	Reasons	Yes	No	Mean	SD
RWF1	Food is expired and spoiled	270	32	0.894	0.308
RWF2	Food has mould	233	69	0.772	0.421
RWF3	Food does not have a good smell	39	263	0.129	0.336
RWF4	Leftover food	174	128	0.576	0.495
RWF5	I did not like the food or ingredients	65	237	0.215	0.412
RWF6	The food does not meet my expectation	107	195	0.354	0.479

Note: SD refers to Standard Deviation; The scale used was 0 = No and 1 = Yes

4.5 Relationship between Independent and Dependent Variables

Table 7 summarises the Pearson correlation analysis between independent and dependent variables. The analysis revealed a moderate and statistically significant positive relationship between concern about food waste implications and the intention not to waste food ($r = 0.575$, $p < 0.001$), indicating that individuals who were more

concerned about the environmental and social consequences of food waste were also more likely to express a strong intention to reduce waste. However, the relationship between concern and actual household food waste behaviour was weak and not statistically significant (r = 0.104, p = 0.071), suggesting that concern alone does not necessarily result in lower food waste at the household level. Similarly, the correlation between intention not to waste and actual food waste behaviour was very weak, negative, and statistically non-significant (r = -0.041, p = 0.473), further supporting the existence of an intention–behaviour gap. Despite respondents expressing high concern and strong intentions to reduce food waste, these attitudes did not translate into a measurable reduction in food waste practices.

Table 7: Descriptive analysis and correlation for independent and dependent variables

Variable	N	M	SD	1	2	3
1. Household Food Waste Behavior	302	15.18	6.55	-		
2. Concern about Food Waste	302	4.01	0.72	.104	-	
3. Intention not to Waste	302	4.25	0.71	-.041	.575**	-

*Note: SD refers to Standard Deviation, *significant at p < 0.05, **significant at p < 0.001*

5 Discussion

This study examined the relationships between concern about food waste, the intention to avoid it, and actual household food waste behaviour among urban residents in Kuala Lumpur. The findings highlight a persistent intention–behaviour gap, consistent with the Theory of Planned Behaviour (Ajzen, 1991) and prior research (Sheeran, 2002; Schanes *et al.*, 2018).

A key finding was the moderate, significant positive relationship between concern and intention, suggesting that individuals who are more environmentally and ethically aware are more likely to form intentions to reduce waste, echoing results from Qi and Roe (2016) and Stancu *et al.* (2016). Emotional drivers, such as guilt, further reinforced these intentions, as reflected in the high mean scores for guilt-related items.

However, the relationship between concern and actual behaviour was weak and non-significant (r = 0.104, p = 0.071), and the link between intention and behaviour was even weaker, negative, and also non-significant (r = -0.041, p = 0.473). These results reinforce the well-established intention–behaviour gap, where strong motivations are often disrupted by external and habitual barriers such as time constraints, poor planning, cultural norms, and behavioural inertia (Shan *et al.*, 2024; Graham-Rowe *et al.*, 2014).

Despite high concern for environmental and social consequences, including resource fairness, respondents reported low engagement in preventive behaviours. This disconnect may stem from competing priorities, lack of planning tools, or the absence of immediate feedback from wasteful habits, all of which diminish the likelihood of sustained action.

Furthermore, while respondents expressed strong emotional intentions to avoid food waste, especially feelings of guilt or ethical obligation, these attitudes did not translate into measurable behavioural changes. This reinforces the argument that cognitive and emotional readiness alone is insufficient; logistical and behavioural constraints, such as food perishability, shopping habits, and family consumption patterns, often act as more immediate determinants of behaviour (Chakraborty & Mattila, 2024; Ma *et al.*, 2023).

Another important insight is the type of food most commonly wasted, that are vegetables, bread, and dairy products, indicating that perishability and storage challenges are key contributors. These food groups are also essential sources of micronutrients, and their loss raises concerns over nutritional adequacy in household diets (Ja'afar *et al.*, 2024). Lower waste of meat and fish may reflect their higher perceived value or cultural importance, whereas canned goods, with longer shelf life, were wasted the least. These patterns align with a study by Phooi *et al.* (2022), who stated that raw plant food was wasted the most, while raw and cooked animal foods were the least discarded.

The most frequently cited reasons for food waste were food spoilage, mould growth, and leftovers, with fewer participants citing dislike or unmet expectations. These results reinforce the importance of household food management practices, such as proper storage, portion control, and using leftovers creatively.

From a behavioural intervention perspective, this study supports the need for approaches that go beyond awareness-raising. While concern and intention are necessary precursors, they are not sufficient to change deeply ingrained consumption and disposal habits. Behavioural nudges, educational tools for meal planning, packaging innovations, and community initiatives (like food-sharing platforms) may help bridge the gap between intention and action.

6 Conclusion

This study contributes to the growing body of food waste literature by providing empirical evidence of the intention–behaviour gap among urban Malaysian households. While concern and intention were found to be strongly present, they did not significantly reduce actual household food waste. This indicates that pro-environmental attitudes and ethical considerations alone are inadequate to drive behavioural change without practical strategies and contextual support.

Given that food spoilage, leftovers, and improper storage emerged as leading causes of waste, targeted interventions focusing on food literacy, portion control, and storage practices are warranted. Educational campaigns should emphasise not only the environmental and economic impacts of food waste but also provide actionable guidance on reducing daily waste. Government agencies, NGOs, and private sectors must work collaboratively to implement these strategies.

The study also reinforces the applicability of TPB in understanding household food waste dynamics, while highlighting the limitations of relying solely on attitudinal and intentional predictors. Future research should explore the mediating or moderating roles of habit, convenience, and cultural norms, and consider mixed-method approaches for deeper behavioural insights.

Ultimately, effective food waste reduction requires a multi-level response—combining individual commitment with supportive policy, environmental design, and community engagement. By addressing both psychological and structural barriers, Malaysia can move closer to achieving its national goals for food security and sustainability.

7 About the authors

Author 1 is a Master of Science in Foodservice Management graduate from Universiti Teknologi MARA (UiTM). Her research focuses on household food waste in Kuala Lumpur, investigating the factors that influence food waste behaviors. She is passionate about promoting sustainable living and developing practical solutions to reduce waste in urban areas.

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