
Value-Attitude-Behaviour Theory Perspective on Plate Waste Reduction Behavior-An Empirical study

Dr. Sayantani Chakraborty

Assistant Professor, Rai University, Ahmedabad, India

sayantani2510@gmail.com

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ABSTRACT

Food waste has turned out to be a global concern with its various forms, creating a substantial impact on every pillar of sustainable development practices. Food waste has many contributors, such as various industries, their operations, waste-generating consumptions, etc. Educational institutions, especially universities, could also be considered significant epicentres of food waste. With the help of the Value-attitude-behaviour hierarchy, we examined the reasons behind university students' food waste reduction behaviour. We hypothesize that students' perceived value towards food waste leads to their food waste reduction behaviour. Additionally, we also examined whether gender and food habits can create any additional impact on this relationship. The results confirmed a statistically significant link between perceived value of food waste and waste reduction behavior among students. However, gender and food habits do not have any impact on this relationship. We also found that social norms on food waste do not have any impact on students' behaviour. Students' upbringing and their awareness of minimizing food waste can elevate in fulfilling various sustainable consumption parameters under UN norms of SDG goals

Key Words: *Responsible consumption, Value-attitude-behavior theory, Food waste behaviour, university canteen, SDG goals*

Corresponding Author Details

Name: Dr. Sayantani Chakraborty

E.Mail: sayantani2510@gmail.com

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1. INTRODUCTION

In 2020, the United Nations decided to observe the ‘International Day of Awareness on Food Loss and Waste (IDAFLW)’ every year on 29th September in support of Sustainable Development Goal 12 (UN.org). The aim is to strengthen the stakeholders’ efforts to fight global food insecurity and provide a secured food future for everyone. Approximately 345 million people faced food insecurity and more than 828 million people sleep hungry every night (World Food Programme 2022). These numbers are indicators of a humanitarian crisis.

The aim of SDG 12.3 is responsible production and consumption. In the food waste context, SDG 12.3 aims to raise awareness among nations about the causes and effects of food waste however the progress is still uneven. Worldwide, 17 per cent of food is wasted at the consumption level (UNEP, 2022). Food waste is also responsible for 38% of total energy use and contributes 8-10% of Global greenhouse gas emission (UNEP, 2021). This study supports SDG 12 with a particular focus on target 12.3 which seeks to “halve per capita global food waste at the retail and consumer levels and reduce food losses along production and supply chains” by the year 2030 (FAO, 2022).

The existing literature has identified food waste as a worrying issue due to its adverse consequences on the environmental, economic and social front (Wu et al., 2019). Food/plate waste is defined as the unconsumed portions of food items abandoned on plate by consumers (Zhao and Manning, 2019). The present study focuses on the plate waste behavior of students at higher education institutions.

Studies have mentioned that consumer food consumption is the significant driver of generating food/plate waste (Bravi, 2019; Ozanne et al., 2022). In canteens at higher education institutions, Generation Z has found to waste more compared to others (Akhter et al., 2024; Catalano et al., 2024). Universities comprise students from different generations (Gen Z, Gen Y, Millennials) with diverse educational backgrounds. Students spend a substantial part of their day at campus and canteens play a major role in shaping their eating patterns (Tam et al., 2017). Therefore, they bear a moral responsibility to adopt sustainable food consumption practices.

In India, vivid diversity, culture and region-based preferences significantly contribute to food waste. Annually, Indian households generate approximately 50 kg or 68.76 million tons of food waste per person annually. In addition to it, 40.5% of students reported discarding food because of bad taste (Food Waste Index Report, 2021).

Research has found that students wasted food because ‘it did not taste good’ (Davidson et al., 2022). The literature on food/plate waste in Indian context is scant. Two small-scale studies reported from India were conducted in Dehradun (Uttarakhand) and in Andhra Pradesh, where the sample size was negligible or unclear (Sinha et al., 2021). A recent study on 500 college students found that 80% of students understand the importance of reducing food waste but only 45% of them actively practicing it (Manikandan et al., 2025).

The existing literature on plate waste studied various aspects of it (Kaur et al., 2021; Filho et al., 2021) such as dietary preference and individual appetite (Wu et al., 2019), characteristics of

individual and family level (Qian et al, 2022), environmental concern (Tsai et al, 2020), carbon footprint (Qian et al., 2022), food menu (Aires et al., 2021), overproduction and distribution waste (Abdelaal et al., 2019), Plate size (Richardson et al., 2021), lack of planning and organizing (Ozanne et al., 2022). To the best of our knowledge, no prior study has examined the gap between students' values and behaviors related to plate waste within the context of higher education institutions. Therefore, the present study answers this gap by empirically testing an extended value attitude behavior model that includes students' perceived value, attitude, behavior as well as personal and social norms of the students. The findings offer significant contributions for consumers and the policy makers of higher education institutions towards SDG12.3.

2. THEORETICAL BACKGROUND AND LITERATURE REVIEW

2.1.Theoretical background:

According to VAB theory, attitude serves as an intermediary link between value and behavior (Homer & Kahle, 1988). This model has been extensively applied to interpret the connection between consumers' pro-environmental attitude, intention and their sustainable consumption behaviors across diverse contexts.

Kang et al. (2019) examined consumers' choice of healthy food while dining out with the VAB model. Tourist attitudes and tourism attributes were also studied with the VAB hierarchy (Lee et al., 2021). Habib et al. (2023) studied food waste reduction intention using VAB model among UK households. These studies were conducted in different consumption contexts however the underlying mechanism remains same, value shapes attitude that follows behavior. We applied this logic in our study to examine the students' underlying values regarding food waste which in turn shape their attitude and ultimately plate waste reduction behavior at University canteens.

Food waste prevention or reduction behavior in educational institutions has been examined through various theoretical lenses (Kaur et al., 2021). Some of them include Theory of Reasoned Action (Pandey et al., 2023), Theory of planned behavior (Visschers et al., 2020) Social Practice Theory (Ozanne, 2022). However, to the best of our knowledge, The relationship between student's perceived value and plate waste reduction behavior at university canteens through VAB model has not been examined before. Therefore, our study found this theory appropriate and robust to be implemented to empirically test the integrated theoretical model.

2.2. Hypothesis development:

2.2.1. Perception of value, Religiosity and Family Upbringing

Consumers' perceived value of food waste refers to their perception of wasting food related to various aspects. One of them is the religious values of food by university students. Consumers' behaviour related to ethical issues is affected by religiosity. A positive link is found between awareness or religious duty and green purchase intentions (Elhoushy & Jang, 2021). Mostly, the relationship

between religiosity and food waste behaviour was studied in diverse contexts: household (Ayasari et al., 2024) and restaurant or dining out (Elshaer et al., 2021).

Family upbringing where students get informal teachings on values and inculcate habitual practices. This happens organically with everyday activities (Filimonau et al., 2023). Habitual patterns of Individuals are considered a major element of food waste and its repetitive nature without corrective interferences turned it into a routine in everyday life (Asyari et al., 2024).

Attitude represents how individuals react or act in a certain way based on their experience and temperament (Ajzen, 1991). If an individual's inner conscience or emotion raises its voice (positive or negative way) towards certain practices, their attitude may get affected, and so does their behaviour. When a sense of shame is associated with food waste, the attitude of individuals turns out to be socially sensible beings (Song et al., 2023). Some studies found a link between consumers' food waste habit and their emotions linked with it. Research found that consumers feel guilty when they engage in wasteful behavior. As per Baumeister et al. (1994), "Guilt is an aroused form of emotional distress that is distinct from fear and anger and based on the possibility that one may be in the wrong or that others may have such a perception".

Consumers' hedonic value comprises personal experience, fun and enjoyment and consumption behaviour can also be driven by hedonic motivation (Habib et al., 2023). Consumers' hedonic value can influence environmentally friendly consumption in either a positive or negative way (Kim and Hall, 2019). Consumers' hedonic values are strongly associated with their attitudes about being environmentally concerned (Habib et al., 2023).

Personal norms refer to the sense of moral duty that allows individuals to either engage in or avoid certain actions (Setiawan & Puspitasari, 2023). Studies have found that personal norms are instrumental in deciding whether consumers should engage in recycling behaviors (Luo et al., 2024).

Social norms involve the perceived social pressure to either engage in or abstain from a particular behaviour (Ajzen, 2001). A social norm is influenced by an individual's willingness to align their actions with their pro-environmental values (Song et al., 2023).

H1: Perceived value has a positive effect on attitude towards plate waste behavior

H2: Perceived value has a positive effect on personal norms towards plate waste behavior

H3: Perceived value has a positive effect on social norms towards plate waste behavior

2.2.2 Attitude, personal norm, social norm, and students' plate waste reduction behaviour

The VAB theory suggests that values shape attitudes which in turn determine behavior. For instance, consumers' perspective of nutrition affects their buying habits for natural and organic foods (Holmer & Kahle, 1988). Ecological actions and generalized environmental attitudes also lead to environment supportive behaviour. (.) examined the attitude towards food waste based on morality and lack of concern. (.) emphasized that food waste has routes in the routines built in the households. Additionally,

an individual's emotion plays an important role in building attitudes towards food waste behaviour. Sometimes, a sense of shame and guilt arises when food is wasted (Attiq et al., 2021).

Personal norms can be defined as “to be used to signify the self-expectations for specific action in particular situations that are constructed by the individual”. Social norms, on the other hand, are the norms based on the expectations or pressure of a group of people and backed by either reward or unacceptance (Ajzen, 1991). Individuals' environmentally conscious behaviour is comprised of both social and personal norms whereas the latter predominantly impacts the behavior more than the former(). The personal norm of an individual is a type of motivation that drives pro-environmental behavior. Studies found that both personal norms and social norms have positively influenced consumers' waste reduction behavior ().

H4: Attitude has a positive effect on students' plate waste reduction behaviour

H5: Personal norms have a positive effect on students' plate waste reduction behaviour.

H6: Social norms have a positive effect on students' plate waste reduction behavior.

As per (), forcefully restricting the choice of foods is highly controversial. Moreover, the effects of this forced imposition are still not very prominent. Kim and Hall (2019) suggest that vegetarians consider ethical, religious and health values compared to non-vegetarians. Iori et al. (2022) examined the food habits of consumers and found that they are considered important in avoiding food waste. Prior literature on food habits is scant and existing ones are giving mixed results regarding its relation with food waste behaviour. As per (2015), more vegetarian items are thrown away or wasted than non-veg items. Hoek et al (2016) mentioned that eating more plant-based than animal-based food is considered an important consideration towards environmental change and food waste reduction behaviour. A study done by (2012) reveals that consumers understand the importance of choosing vegetarian food, but they find it hard to change their habits. The supporters of the vegetarian diet mentioned that it is easy to maintain because they are mostly surrounded by vegetarian people on personal and professional fronts. (2008) identified the empathetic and attitudinal differences between vegetarians and non-vegetarian people toward animals. One significant study done by China Montesdeoca et al.(2022) found that vegan or vegetarian eating habits are positively linked with the purchase of eco-friendly products and become more empathetic towards animals. Poll and Stern (2020) found that ethical considerations strongly drive the behavioural patterns of vegetarians and vegans compared to non-vegetarians. Shreedhar and Galizzi (2021) proved that various govt policies and campaigns play an important role in changing dietary behaviour concerning personal and planetary health benefits. Based on the various findings discussed above, we propose that

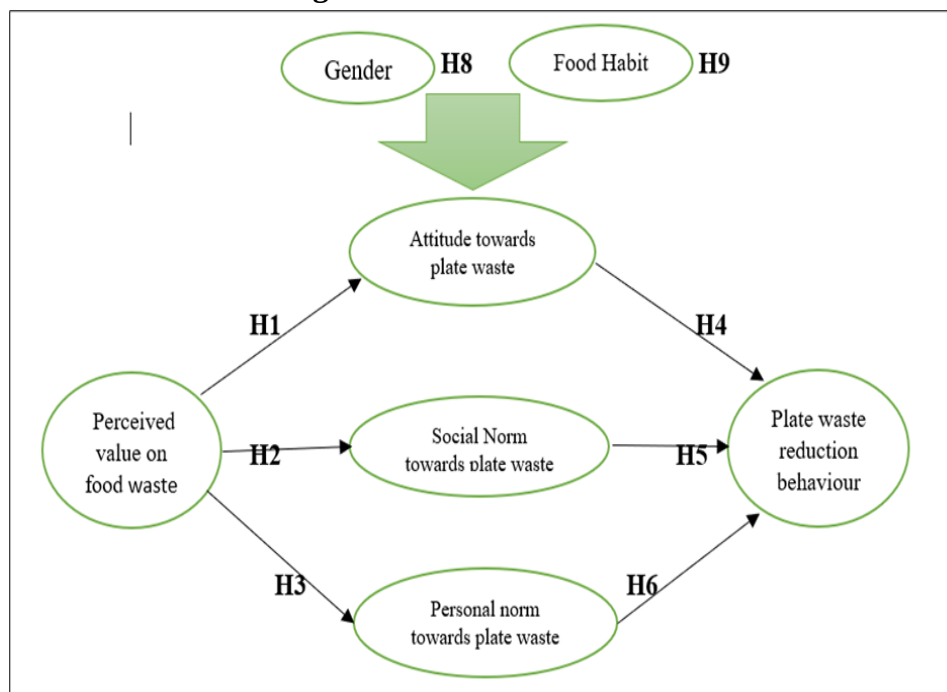
H7: Food habits positively moderate the impact of perceived value on attitude, personal norm, and social norms on students' plate waste reduction behaviour.

Research has shown that gender influences food waste reduction behaviour. Painter et al.(2016) found that students at Rhodes University discarded an average 555g of food daily with females waste 722 g and males 467 g. Female students aged between 20–25 years were found to generate a considerable

amount of food waste at the university canteens (Zhang et al., 2021). Also, (Kuo) found that the average female plate waste was twice that of males. In contrast, (2019) found women regardless of their age, shows more concerned than men about the negative impact of food waste on societal and the environment. On the other hand, some studies have indicated that gender does not influence food waste (Brizi and Biraglia., 2021). According to (), females generally reported levels of food waste themselves. Jamaludin et al.(2022) argued that women waste less food than men. Karunasena (2021) mentioned the impact of gender on food waste behaviour gives contradictory outcomes and results in different studies therefore any generalised conclusion can't be drawn. Therefore, we propose

H8: Gender positively moderates the impact of perceived value on attitude, personal norm, and social norms on students' plate waste reduction behavior.

Fig 1: Theoretical framework



3. RESEARCH METHODOLOGY

3.1 Study Site: The respondents were chosen from a reputed university in Telangana, the southern part of India. This university has 5000 students and most of them are Gen Z. The reason behind choosing this university is its large pool of students that will help to provide variability in the data.

3.2 Data collection:

This study is based on primary data collected by conducting a field-based survey to test the theoretical model by using the structural equation modelling analysis procedure. Our study has 18 items so we would require 180 data points (Hair et al., 2019). We collected 270 responses (18x15) using the simple random sampling technique. After cleaning the data, we ran the analysis on 230 data points. It took 3 months to collect the data.

3.3 Respondents profile:

Respondents are majorly Gen Z students. Out of 300 respondents, male responses were 51.30%, and female responses were 48.70%. The age bracket of the respondents was majorly between 20-25yrs. The educational qualification of the respondents was postgraduate. 65.20% of respondents had both vegetarian and non-vegetarian food habits. 18.70% were vegetarian. 9.60% and 5.70% were nonvegetarian and eggetarian respectively. None of the respondents was found vegan.

Table 1 : The demographic profile of respondents

S.N.	Demographic Variable	Groups	Frequency	%
1	Age (in years)	Less than 20	4	01.70
		20 - 25	218	94.80
		26 - 30	8	03.50
2	Gender	Male	118	51.30
		Female	112	48.70
3	Food Habit	Vegetarian	43	18.70
		Non Vegetarian	22	09.60
		Both (Veg + Non Veg)	150	65.20
		Eggetarian (Veg + Egg)	13	05.70
		Vegan	0	0.00
		Others	2	0.90

4.RESULTS OF THE STUDY:

4.1. Descriptive and Reliability analysis:

The range of the standard deviation was between .955 and 1.295. The mean values were between 4.85 to 6.46. The Cronbach alpha of the items matched the acceptable threshold ranges between .763 and .867 (Nunnally & Bernstein, 1994). The data met the normality assumption with skewness and kurtosis values ranging from (-1.420 to 0.202) and (-1.286 to 0.84) respectively. The measure of the central tendency and dispersion of the are mentioned in **Table no 2**.

The standard deviation was observed to vary from .955 to 1.295, while the mean values were between 4.85 and 6.46. The Cronbach's alpha (α) for the items fell within the acceptable range of .763 to .867, as per Nunnally and Bernstein (1994). The data met the normality assumption, with skewness and kurtosis values ranging from -1.420 to 0.202 and -1.286 to 0.84, respectively. The central tendency and dispersion measures are detailed in

Table 2: Descriptive and reliability analysis results

Variable	Average	Standard Deviation	Cronbach's Alpha
Perceived Value on Food Waste (PRV)			
PV1	5.97	1.129	0.823
PV2	6.46	.955	
PV3	6.19	1.027	
PV4	6.09	1.055	
Attitude Toward Plate Waste Reduction (ATT)			
AT1	5.65	1.118	0.807
AT2	5.80	1.169	
AT3	6.05	1.072	
AT4	5.79	1.248	

Social Norms Towards Plate Waste Reduction (SCN)				
SN1	5.10	1.295	0.785	
SN2	5.25	1.165		
SN3	4.85	1.249		
Personal Norms Towards Plate Waste Reduction (PRN)				
PN1	5.57	1.261	0.763	
PN2	6.30	1.015		
PN3	5.92	1.187		
Plate Waste Reduction Behavior (PWRB)				
PW1	5.89	1.127	0.867	
PW2	5.47	1.192		
PW3	5.53	1.221		
Total			0.871	

4.2 Common method bias

Harman's single factor test (Harman, 1976) confirmed that a single factor explained 33.447% which is the recommended value given by (Podsakoff et al, 2012). Thus, the data showed no substantial problems of Common method bias.

4.3 Confirmatory factor analysis (CFA)

In this study, we have used measurement scales from existing literature and to check the reliability and validity through Confirmatory factor analysis using IBM AMOS 21.1. The results showed that all the variables used in this study had significant factor loadings and met the criteria suggested by Hu and Bentler(1999)(*Table 3*). Measurement model is found in (*Fig.1*).

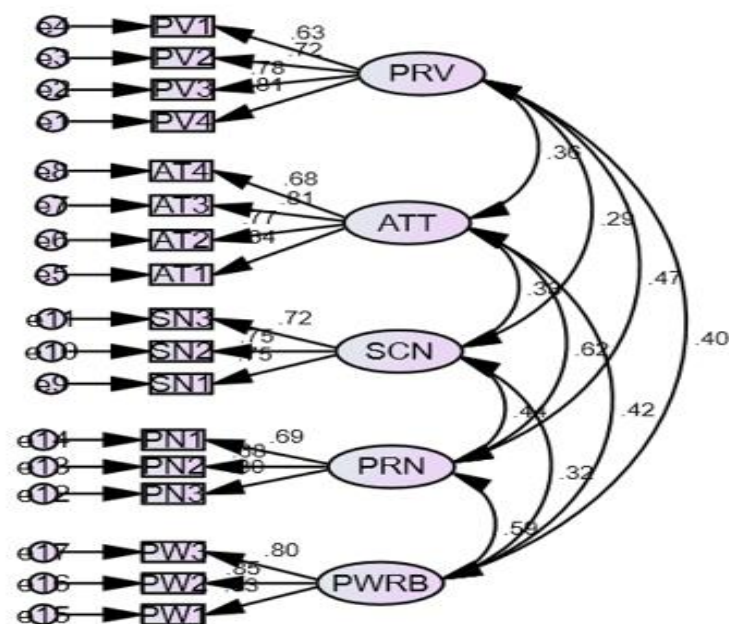
Table 3: CFA Results and Fit indices

Model Fit Indices

S.N.	Measure	Finding	Threshold
1	χ^2	170.509	---
2	Degrees of freedom	109	---
3	χ^2 / Degrees of freedom	170.509/109 = 1.564	< 3 Good
4	p-value	< 0.000	> 0.05
5	Goodness-of-Fit Index (GFI)	0.901	> 0.90
7	Incremental Fit Index (IFI)	0.962	> 0.90
7	Tucker-Lewis Index (TLI)	0.952	> 0.90
8	Comparative Fit Index (CFI)	0.961	> 0.90
9	RMSEA	0.050	< 0.05

Source: Hu & Bentler (1999)

Fig 2. Measurement model



4.4 Convergent and Discriminant Validity

Convergent validity tells whether some items correctly came together to explain a factor and values over .70 and AVE values over .50 are considered to be acceptable suggested by (Bagozzi and Yi, 1988; Fornell and Larcker, 1981). Discriminant validity tests whether the latent constructs are distinguishable from each other based on the guidelines set by Hair et al. (2019) and Fornell and Larcker(1981). As per the criteria, the square root of the AVE value of each factor should exceed the correlation coefficients between the two constructs. The results are found on **(Table 4)**.

Table 4 : Validity analysis Results

	CR	AVE	PWRB	PRV	ATT	SCN	PRN
PWRB	0.868	0.687	0.829				
PRV	0.829	0.550	0.397	0.741			
ATT	0.815	0.526	0.424	0.365	0.725		
SCN	0.785	0.549	0.323	0.290	0.327	0.741	
PRN	0.768	0.526	0.588	0.465	0.621	0.442	0.725

4.4 Hypothesis testing

The results of hypothesis test found five out of six hypotheses were supported by data. The structural model in our study found perceived value as the most significant predictor leads to developing student's personal norms ($\beta=.529$, $p<0.000$). The next significant relationships in the structural model were found as personal norms ($\beta=.489$, $p<0.000$) as the strong predictor of students' plate waste reduction behaviour and perceived value to attitude ($\beta=.423$, $p<0.000$). The effect of social norms on students' plate waste reduction behaviour was not found significant ($\beta=.111$, $p<0.000$).

Table 5: Hypothesis results

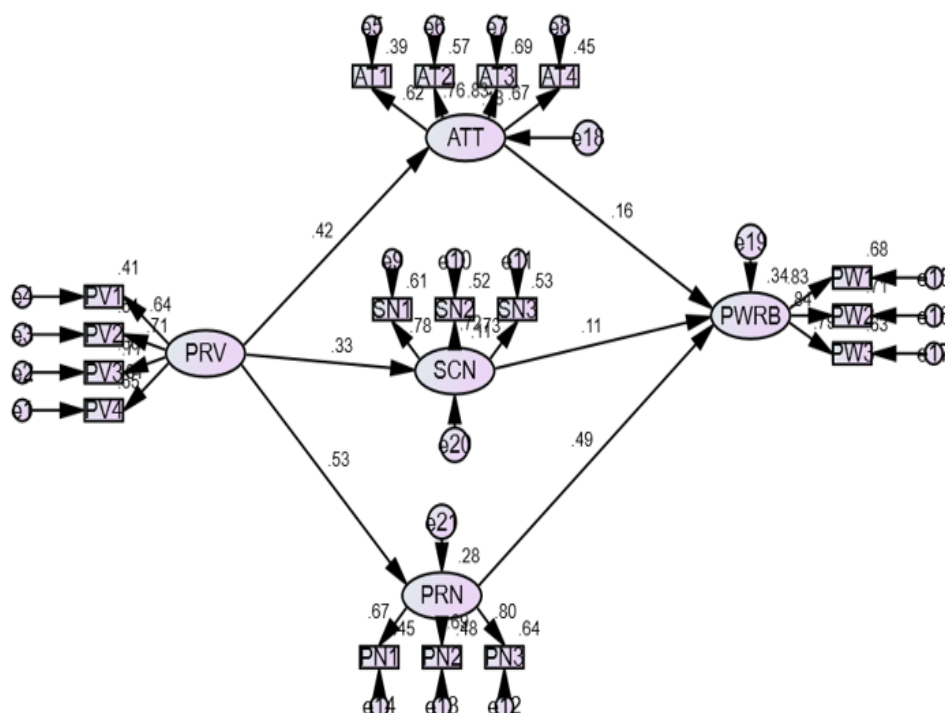
Relationship	Unstandardized Estimate	Standardized Estimate	S.E.	C.R.	p-value	R ²	Decision
ATT <--- PRV	0.346	0.423	0.070	4.949	0.000	0.179	Supported
SCN <--- PRV	0.387	0.327	0.097	3.995	0.000	0.107	Supported

PRN <--- PRV	0.592	0.529	0.09 2	6.43 8	0.000	0.28 0	Supported
PWRB <--- PRN	0.471	0.489	0.08 0	5.88 7	0.000	0.33 5	Supported
PWRB <--- SCN	0.101	0.111	0.06 6	1.53 3	0.125		Not Supported
PWRB <--- ATT	0.210	0.160	0.09 6	2.19 4	0.028		Supported

4.5 Moderator analysis

The moderators used in this study were gender and food habit of the students. These two moderators were utilised to examine the impact on the students' attitudes, social norms and personal norms associated with their plate waste reduction behaviour. The impact of both the moderators was found to be insignificant on the attitude, social norms and personal norms of the students' plate waste reduction behaviour.

Fig.3: The Structural model



5. DISCUSSION

Reducing, reusing, and recycling food waste is the proper approach to take. The goal of this study is to examine consumer behavior related to reducing plate waste. This study seeks to explore various elements that may reduce plate waste among consumers, especially Generation Z. Globally, Food waste is criticized and initiative to cut it down are encouraged by policy makers and authoritative bodies. Although food waste is recognized as a significant issue, consumers remain producing waste which continues to be a major concern with negative impact on society and environment.

The structural model in our study found perceived value as the most significant predictor leads to developing student's personal followed and subjective norms followed. The next significant relationships in the structural model were found as personal norms as the strong predictor of students' plate waste reduction behavior and perceived value to attitude. The effect of social norms on students' plate waste reduction behaviour was found insignificant.

This study fills in a significant gap in previous research on food: students' lack of knowledge about the negative effects of food waste, their tendency to waste, their lack of guilt about wasting food, and their lack of concern for wasting money while wasting food are all addressed. In the developed world, food waste reduction and recycling are actively undertaken by consumers. Conversely, food waste reduction, reuse, and recycling are not seen as problems in developing economies like India.

Awareness of the consequences significantly influences efforts to minimize, reuse, and recycle food waste. People tend to cut down on food waste and experience guilt if they fail to do so, as they understand the detrimental impact of food waste on both the environment and society. Nevertheless, food is discarded daily. Students often discard food and leave leftovers on their plates without considering the financial implications. Many do not find new uses for their leftover food because they are unaware of the harmful effects of food waste, and the reverse is also true (Khan et al., 2019). The study's findings also show a strong association between PV and SN. According to the research that is currently available, SN entices people to comply by offering a range of social benefits, including social status, identity, and social image

Put another way, customers are incentivized to match their behavior with that of their social circle by the enjoyment and emotional benefits that come with FW reduction. The findings are consistent with a strong relationship between PV and ATT. These results support earlier research that indicates a positive link between perceived value and attitude development followed by environmentally friendly behaviors in the context of eco-friendly behaviors (Cheng et al., 2020).

As a result, consumers consider the advantages and disadvantages of implementing pro-environmental behaviors like FWRB (Schultz and Oskamp, 1996). Cheung and To (2019) found that individuals with a positive attitude towards environmental concerns tend to show environmentally friendly behavior. Finally, the result supported H4 that indicates a strong link between attitude and food waste reduction behavior. These results align with those reported by others and are consistent with existing literature.

People believe that they ought to practice recycling and waste reduction. Consequently, they engage in environmentally conscious practices in their daily lives and establish them as personal standards. The results validated **H5** and showed a significant relationship between PN and FWRI. The body of research has demonstrated that PN plays a major role in encouraging ecologically friendly behavior (Ahn and Kwon, 2020; Birau and Faure, 2018).

H6 (an insignificant positive relationship between SN and FWRI) was not supported by the study's findings. This result is in contrast to what Fang et al. (2017) reported. The authors contended that pro-social behavior and ethical intentions are greatly aided by social networking. Students at universities today may not have felt any social pressure to eat in the mess while they were there. Because everyone considers everyone else as a peer in university settings, students do not recognize differences in status, age, income, generation, social structure, or hierarchical relationships.

The operationalization of eating habits and gender as moderators had no effect on the attitudes, social norms, or personal norms surrounding students' plate waste reduction behavior, according to the results of the current study. This could be because of the situation, since in messes, it doesn't really matter if you belong to a certain gender or have a particular eating pattern.

5.1 Theoretical Implications

The results of this research have significant implications for academic contributions. Firstly, the study empirically validates the use of VAB theory in the context of food waste among generation Z university students. Second, this study addressed the limited predictive capability of commonly used theoretical frameworks by operationalizing the VAB model to explore multidisciplinary aspects of food waste (Bravi et al., 2020). Third, the results identified attitude and perceived value as key predictors of food waste reduction behaviour in Indian context. In the realm of consumer FW reduction, investigating ATT and PV could enhance our understanding of FWRB and mitigate potential limitations of current models, such as the theory of planned behavior (Khan et al., 2019).

5.2 Practical Implications

First, our findings suggest that consumers' view on perceived value motivates them to form positive attitudes and reinforce their food waste reduction behavior. If students find reducing food waste to be convenient and enjoyable, they may participate in it for hedonic reasons. By linking food waste to enjoyable experiences, educators can motivate students to cut down on food wastage. The significant link between perceived value and attitudes towards minimizing food waste offers useful insights for those aiming to encourage positive consumer attitudes by promoting adherence to societal norms. Additionally, the study suggests that students' attitudes and personal norms significantly impact food waste reduction behaviors. As a result, these two become pertinent concepts to deter students from throwing away food. To promote food waste reduction behaviors, marketers should spread these messages through advertising and awareness initiatives. Authorized regulatory bodies should promote food waste reduction behaviour as universally accepted social norms through a variety of

media campaigns. Organizations and educational institutions who offer canteen facility should monitor the food waste on a daily basis and should take actionable measures to reduce the waste.

5.3 Limitations and Future Research Scopes:

This study has some limitations. The present study is conducted in the context of higher educational institutions where data was collected from the southern part of India. Future studies may consider universities from other parts of the nation (east, north, west, etc) to explore inherent differences among students' food waste behaviour in various parts of India. This study does not consider cultural aspects while discussing the religiosity of food waste behaviour among students therefore future research can explore the interplay between regions to predict students' food waste behaviour. Mostly, the theory of planned behaviour explains food waste behaviour in diverse contexts (Kar et al., 2021). In contrast, our study examined plate waste) behaviour of Gen Z students in a university context by using the VAB framework (Holmer and Kahle, 1988). Future research may consider merging VAB and BRT (behavioural reasoning theory) to explain reasoning aspects of food waste behaviour among university students. Moreover, merging VAB and other sociological theories can also be used to explore the environmental and social aspects of wasting food at universities. Also, the distinction between urban and rural literacy rates, employment and awareness about environmental and social factors may explain causes that lead to students' food waste behaviour. Along with these, future studies may expand our study by conducting exploratory studies that can help to get some rich insights about food waste behaviour by taking responses from students and can also look into the measures initiated by university officials and canteen authorities to prevent plate waste. Upcoming studies may also consider the time (Breakfast, lunch, snacks, dinner) as an important contributor to food waste at university canteens. Finally, more studies on understanding food waste behaviour among Gen Z and youths need to be conducted in the Indian context, considering its large population and great diversity.

6. CONCLUSION

The present research has examined the impact of university students' perceived value related wasting food and how it impacts their food waste reduction behaviour. The structural equation modeling was employed on 230 responses collected through field survey method based on purposive sampling technique. The results showed that student's perceived value on wasting food positively impacts their waste reduction behaviour. Along with this, students' attitude and personal norms also affect towards their food waste reduction behaviour. Surprisingly, social norms don't have any impact on students' food waste reduction behaviour. Finally, students' gender and food habits do not have any impact on the relation between the perceived value and reduction behaviour related food waste. A number of external factors should be considered to explore reasons behind students' food waste behaviour.

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