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Review Article

A STUDY ON CAUSES OF SOCIO DEMOGRAPHIC BEHAVIOURAL AND ATTITUDE TOWARDS FOOD WASTE BY MILLENNIAL GENERATION

T. Sureshkumar[1], Dr.P. Na. Kanchana[2]

[1]Ph.D. Research Scholar, Christhuraj Institute of Management & Research, Christhuraj College, Trichy.
suresh13890@gmail.com
[2]Research Supervisor and Professor, Christhuraj Institute of Management Research, Christhuraj College, Trichy.
pnakanch@yahoo.co.in

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Abstract
The environmental impact of food waste, the lack of understanding of food waste behaviour, and the unequal distribution of food globally, are the reasons to create an extensive research in this field. The research conducted on this title will contribute in increased understanding of reasons behind food waste and food waste behaviour; it also contributes to know about the causes of socio demographic influences on food waste. The purpose of this research article is to examine the influence of demographic factors and social context on estimated food waste by millennial generations. In addition to that the various other factors that influence food waste and the drivers to reduce food waste are also studied. The research design used in this study was descriptive research design and the sampling technique was simple random sampling. The statistical analyses have been done using SPSS software.

Keywords: Food Waste, Socio Demographic Factors, Planning Behaviour, Shopping Behaviour, Re Use Management.

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INTRODUCTION

Food wastage is a global problem. According to Food and Agriculture organization (FAO) of the UN, approximately one third of the food produced for the human consumption, which amounts to 1.3 billion tones, gets lost or wasted. India is second largest population in the world. In 2012, government announced that about 22% of Indian population lives below poverty line. According to FAO estimates in 'The State of Food Security and Nutrition in the world, 2017' report, 190.7 million people are undernourished in India. This represents 14.5% of the Indian population, which makes India, the home to largest undernourished population in the world. In spite of this, it is estimated by the UN that nearly 40% of the food produced in India is wasted or lost. And this cost India one lakh crore rupees every year. Food wastage in India is happening at every level; from harvesting, transporting, processing, packaging and consuming. Weddings, events, restaurants, hostels and houses are a major source for food wastage of cooked food. There are many organizations in the country who are working towards helping to reduce this food wastage by collecting the food and distributing it to the needy. But they are all scattered and most of the times, the poor people in India still rely on their luck to be able to find a proper meal. Majority of food wastage in India is caused before it is packaged. This is caused due to the loopholes in the transport and infrastructure system in India. The government has looked into this and started finding investments to develop better technology to reduce this wastage. This study focuses on knowing the various factors causing food waste and also the socio demographic factors such as gender and age influence on food waste behaviour.

REVIEW OF LITERATURE

According to Aschemann-Witzel, J.; De Hooge, Schanes, K et.al.(2015) consumer-related food waste is a complex and multi-faceted issue that is influenced by cultural, social, political, economic, and geographic drivers, as well as cognitive, motivational, and structural factors, food-related behaviors, and food habits.

According to Visschers(2016), V.H.M., Van der Werf(2019), et.al. Previous studies have found socio-demographics to explain only 7–13% of the variance regarding intention to reduce and perceived behavioral control to avoid household food waste.

According to Schanes, K and et.al.(2018).Despite the limited predictive power, correlations between age, sex, employment status, income, household size and composition, and amount of food wastes have been found, but the strength and direction of the relationships vary between studies. In addition, such studies have examined the correlations between socio-demographic characteristics and self-reported food waste, but have not looked at these alongside food-related behaviours that are known to influence food waste.

According to Fisher, R.J(1993) and van Herpen, E et.al(2019) Self-reported food waste is a major limitation in most studies, as it may suffer from social desirability and hypothetical bias, and consequently, may deviate from actual behaviour. According to Møller, H. et.al.(2014), more objective techniques to measure food waste, such as waste composition analysis or diary-based methods, are timely and financially costly. Thus, some researchers have focused on food waste as an aggregate of food-related behaviours rather than on self-reported food waste as an outcome.

According to Koivupuro et al. (2012); Lyndhurst (2007); Quested & Johnson (2009), Impact of social context and demographic factors Amount of food wasted in household seems to be influenced by varying factors in the household e.g. household size and whether there are children in the household or not, and demographic factors, including age, gender, and educational level. One of two factors that correlate strongly with the production of food waste is household size: higher amount of food waste per capita is identified in smaller households compared to larger households.

According to Quested et al. (2013); Secondi et al. (2015), the other factor strongly correlated to generating food waste is age. Studies conducted in different parts of the world have observed

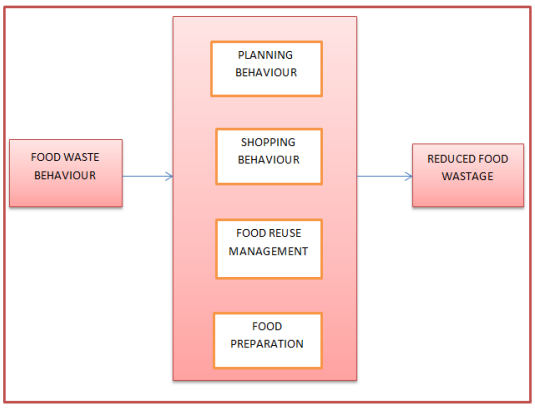
younger age groups wasting more compared to older people, especially concerning those at the age of 65 or older. As older people might have a different management of food in homes due to different life experience than the rest of the population, this might be a possible explanation. Additionally, of nine behaviours Quested et al. (2013) associated with lower food waste levels, the older people were more likely to perform seven of these behaviours.

According to Parizeau et al. (2015), another factor influencing the amount of food waste in the household, is whether there are children in the household or not. Studies have observed a higher amount of food wasted in household with children compared to households without children. Furthermore, gender and education level also seem to impact the amount of food wasted, even though further research is needed regarding these two factors.

OBJECTIVES OF THE STUDY

- To know about the food behaviour of young Indians.
- To know about the main motivations for the wastage of foods among young Indians.
- To know about the various socio demographic factors influencing the food wastage among young Indians.
- To analyse the actions to prevent food wastage.
- To know about the elements that influence positive and negative probability of having food waste behaviour.

CONCEPTUAL FRAMEWORK FOR RESEARCH



ANALYSIS AND INTERPRETATION

Reliability

Variable	Cronbach's Alpha Value
Planning Behaviour	0.780
Shopping Behaviour	0.815
Food Re-use Management	0.790
Food preparation	0.764
Reduced Food waste	0.895

From the reliability output we can infer that all the Cronbach's alpha values for Planning Behaviour (0.780). Shopping Behaviour (0.815), Food Re-use Management (0.790), Food preparation (0.764), Reduced food waste (0.895), are above the cut off value of 0.7, hence, we can conclude that the scale is reliable.

t-Test between Planning Behaviour, Shopping Behaviour, Food Re-use Management, Food preparation, Reduced food waste

Independent and Dependent Samples Test				
		t-test for Equality of Means		
		t	df	Sig. (2-tailed)
Planning Behaviour	Equal variables not assumed	-3.145	29.980	0.003
Shopping Behaviour	Equal variables not assumed	-2.272	23.638	0.31
Food Re-use Management	Equal variables not assumed	-2.372	23.986	0.31
Food preparation	Equal variables not assumed	-0.894	22.096	0.307
Reduced Food waste	Equal variables not assumed	-0.941	22.409	0.357

From the t-test table above we can infer that Planning Behaviour and Shopping Behaviour, Food Re-use Management differ according to the gender of the respondents with the p values less than 0.05, however, the Food preparation and Reduced Food waste does not differ according to the gender of the respondents as the p value (.307) and (.357) is above the threshold of 0.05.

Anova test between Planning Behaviour, Shopping Behaviour, Food Re-use Management, Food preparation and Age.

ANOVA						
		Sum of Squares	df	Mean Squares	F	Sig
Planning Behaviour	Between Groups	1.277	3	0.319	.267	.897
	Within Groups	112.482	94	1.194		
	Total	113.759	97			
Shopping Behaviour	Between Groups	0.857	3	.213	.257	.903
	Within Groups	77.900	94	.830		
	Total	78.757	97			
Food Re-use Management	Between Groups	1.694	3	.423	.509	.729
	Within Groups	79.050	94	.833		
	Total	80.744	9			

			7			
Food preparation	Between Groups	1.854	3	.524	.609	.649
	Within Groups	80.954	94	.932		
	Total	82.808	97			

From the Anova results we can infer that none of the variables (Planning Behaviour, Shopping Behaviour, Food Re-use Management, Food preparation) differ according to the age of the respondents as the p values of Planning Behaviour (0.897), Shopping Behaviour (0.903), Food Re-use Management (0.729) and Food preparation (0.649) are above the cut off value of 0.05.

Multiple Regressions

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.981	.963	.962	.14344
a. Predictors: (Constant), Planning Behaviour, Shopping Behaviour, Food Re-use Management, Food preparation				

Coefficients						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std.Error	Beta		
1	Content	.675	.073		9.176	.000
	Planning behaviour	.341	.29	.412	11.303	.000
	Shopping behaviour	.250	.18	.361	13.435	.000
	Food Re-use Management	.259	.31	.311	8.122	.000
	Food preparation	.270	.51	.436	7.196	.000
	Dependent variable: Reduced food wastage					

Multiple regressions are carried out between Planning Behaviour, Shopping Behaviour, Food Re-use Management and Food preparation. From the regression output we can infer that all four variables Planning Behaviour (0.341), Shopping Behaviour (0.250), Food Re-use Management (0.259), and Food preparation (0.270) have a significant positive impact on Reduced Food wastage with the P values less than 0.001 and R-square being 0.964.

CONCLUSION

It is found that planning behaviour and shopping behaviour, food re-use management differ according to the gender of the respondents, however, the food preparation and reduced food waste does not differ according to the gender of the respondents. It is also found that none of the variables (planning behaviour, shopping behaviour, food re-use management, food preparation) differ according to the age of the respondents. The other analyses also concludes that that all four variables planning behaviour, shopping behaviour, food re-use management, and food preparation have a significant positive impact on reduced food wastage. In order to reduce the wastage of food, the government can set up a service and they can collect food from every source, and set up a shelter where the hungry people can come and feed themselves. This way they don't have to go in search for hungry people. This might also help people staying in remote areas to get feed them where it serves two benefits by serving the hungry people and reducing the wastage of food.

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