A study on factors affecting the purchasing behavior among millennials and its effects on food wastage.

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ABSTRACT

Food is plentiful, economical, and easily accessible. This has resulted in widespread misunderstanding and massive food waste. Therefore, we should not under-evaluate the need for controlling the food wastage which will pave the way for securing the food. If great importance is given to the concept of reducing food wastage, the basic need for food for each individual will be achieved. This study is aimed at analyzing the various factors influencing the shopping habits of millennials and to analyze the effect of food handling which is purchased. To explore the millennials' perspectives on this research, a sample survey in the form of a questionnaire was done. According to the findings of this study, all four variables (sociodemographic variables, psychological factors, economic factors, and health consciousness) have a strong favorable influence on Millennial Purchasing Behavior. It is also evident that the effective and ineffective handling of foods purchased will influence the food wastage.

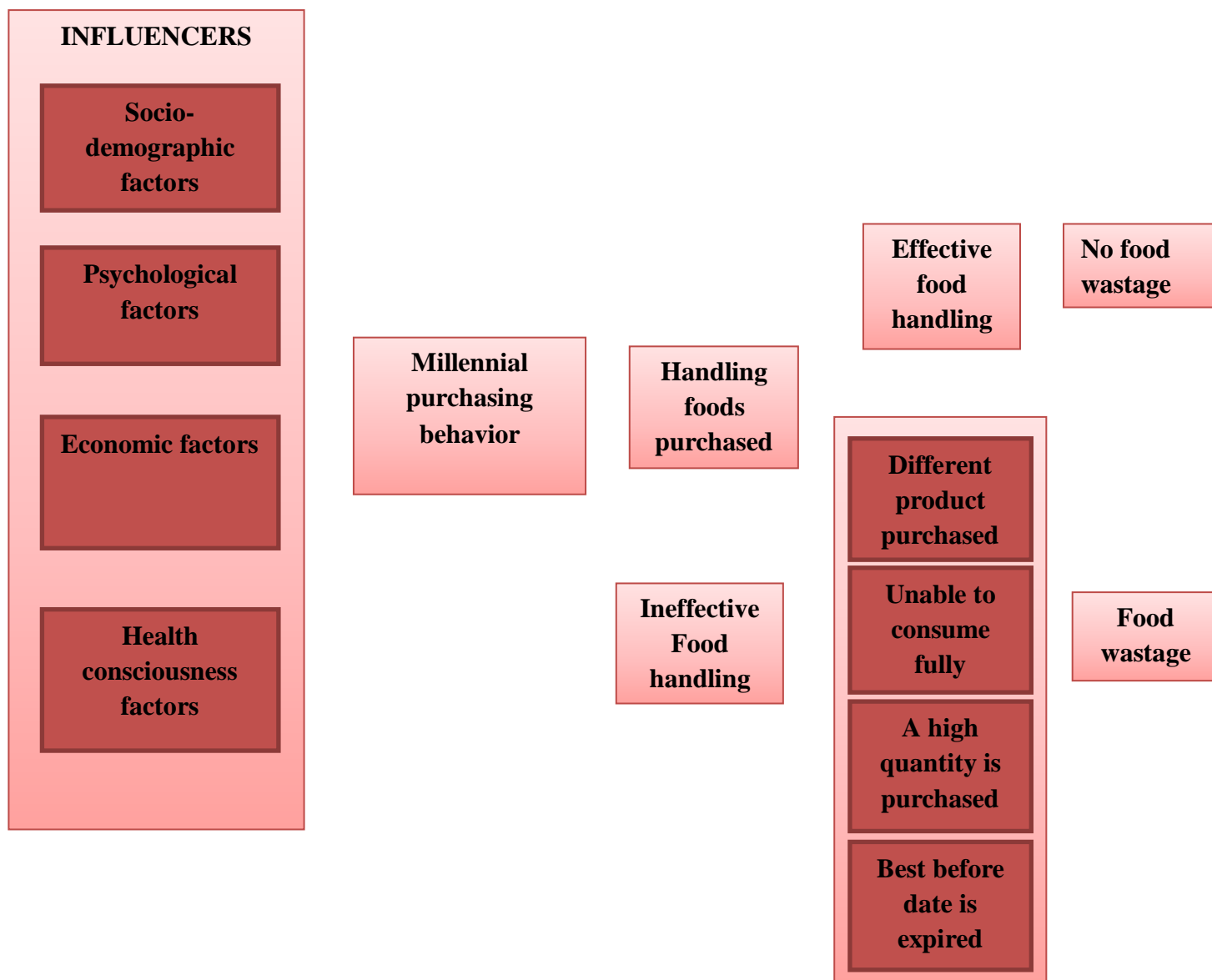*Keywords: Food Waste, Food Waste Management, Millennial, Shopping Habits.*

INTRODUCTION:

Food wastage is initiated by purchasing food-related products and way of utilizing it. The shopping habits or purchasing behavior of millennials can be influenced by various factors.

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Food security is a severe issue on a huge planet, and it is critical to fulfill future population demands. Controlling food waste at all levels is likewise critical, as is making food available to everyone. According to the FAO's 2014 report, one of the potential options for decreasing world hunger is improved management of the food supply chain and eliminating food waste. This study focuses on the elements that influence millennial purchase behavior and their successful and inefficient food handling. This study also analyses the reasons for ineffective handling of food which leads to food wastage.

MILLENNIAL – AN OVERVIEW

Due to their growing proportion in the working-age population, millennials, the age group between 18 and 35, are poised to redefine India's consumption story and take center stage in consumer markets (source: Report from Consulting Firm Deloitte India and Lobby Group Retailers Association of India). According to the research "Trend-setting Millennials: Redefining the Consumer Story," millennials, also known as Generation Y, make up 47% of the population of working age and are India's top salary earners. Millennials, the largest generation in both India and the world, are known for having high levels of discretionary money and being well-connected online, which has sped up the growth and development of many consumer markets. "Globally, India is leading in terms of millennial population. Generation Y (millennials) is accounting for nearly half of the working-age population in India. There is Gen Z, born after the 2000s, which has a completely different set of tastes and preferences but it is still Gen Y which is driving and dominating the entire consumer market,"(Source: Anil Talreja, partner at Deloitte India). According to the research, 27% of the 7.4 billion people living on the globe today are millennials. Millennials make up 34% of India's population or 440 million people. While utilities and education account for the majority of millennials' monthly spending, the extra money is mostly used for entertainment and dining out (32.7%), clothing and accessories (21.4%), and technology (11.2%).

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CONCEPTUAL FRAMEWORK FOR THE STUDY

INFLUENCERS

Socio-demographic factors

Psychological factors

Economic factors

Health consciousness factors

Millennial purchasing behavior

Handling foods purchased

Effective food handling

No food wastage

Ineffective Food handling

Different product purchased

Unable to consume fully

A high quantity is purchased

Best before date is expired

Food wastage

OBJECTIVES OF THE STUDY

Primary objectives:

- To identify the purchasing behavior of the millennials and various reasons for food wastage.

- To suggest various ways by which food wastage can be reduced.

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Secondary objectives:

- ▢ To study the various factors influencing the millennial attitude and choices in purchasing behavior.
- ▢ To identify the effective and ineffective handling of foods purchased.
- ▢ To know the various reasons for food wastage.

Research Methodology

According to Clifford Woody, conducting research entails identifying and redefining issues, generating hypotheses or recommended solutions, gathering, organizing, and analyzing data, drawing deductions, and coming to findings, as well as further testing those conclusions to see if they are compatible with the hypotheses that were previously formed.

Research Design: Descriptive research design

Population: Millennial generation

Sampling Unit: Millennial generation in Chennai

Sampling Size: The sampling size of the project is 200 samples.

Sampling Design: Convenience sampling

Statistical Tools Used: SPSS software

Hypothesis for the study:

- ➢ The link between economic variables and consumer behavior is considerable.
- ➢ The socio-demographic characteristics and shopping behavior are significantly related.
- ➢ The association between psychological characteristics and consumer behavior is quite strong.
- ➢ The association between inefficient food handling and food waste is substantial.

Review of literature:

- ▢ Research by WRAP (2008) identified the root causes of food waste in Britain and hypothesized that homes are a major source of leftovers and unusable food that has been harmed during preparation. It also emphasized the need of eating and drinking on time because food and drinks frequently need to be thrown away once they lose their appropriateness for consumption owing to expiration or degradation.

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▢ Parfitt et al. (2010) suggested that family size and makeup also influence the quantity of food wasted in the home because it has been discovered that adults waste more food than children and that smaller families waste more food per person than bigger families.

▢ According to WRAP (2009), larger families in affluent nations waste less food per person than smaller ones do. According to WRAP (2008), food waste per person is greater in single-person households.

▢ According to Stefan et al. (2013), increasing income levels cause households to waste more food. Lyndhurst (2007) opined that families with lower income generate lesser food wastage and thus, family income seems to have an impact on food waste in households.

▢ Wenlock et al. (1977) were unable to confirm the causal association between income and food waste statistically. WRAP (2007) highlighted that individuals with lower incomes are more inclined to live in the moment and have less of an interest in preparing future purchases.

▢ Wassermann and Schneider (2005) found that people in regular jobs wasted more food. This may have been observed due to relationships among education, type of employment, and earning capabilities as Wassermann and Schneider (2005) noted that people with higher education are more likely to throw away food.

▢ Sriraj (2016) agreed that food waste is a global problem and cited a National Resources Défense Council (NRDC) report as evidence. The report suggested that in the US, around 40 percent of the food goes into dustbin and Asian countries like India and China face 1.3 billion tonnes of food wastage each year. The report also noted that India holds the seventh position in overall wastage of poultry, agricultural produce, and milk.

▢ Kumar (2015) asserted that food waste occurs in India at both the pre-harvest and post-harvest levels, and that "waste of fruits and vegetables accounts for 70% of total produce and costs only 40% of economic losses."

▢ Sriraj (2016) argued that the wastage of input resources such as water and oil is unavoidable due to the problem of food wastage. He also stated that "approximately 45 percent of India's land is degraded primarily due to deforestation, unsustainable agricultural practices, and excessive groundwater extraction to meet the food demand." Underlining the wastage of water inherent in the wastage of food,

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⯀ Yang et al. (2011) argued in their study that because suitable recycling facilities are not accessible, it encourages food waste creation in homes. Proper sorting of garbage in households and socially responsible behavior is required for waste reduction.

⯀ According to Lazaros and Shackelford (2008), home food waste accounts for around 70% of overall food waste globally. Residents buy food yet do not eat it. edible Food is frequently thrown away. They stated that as discretionary income rises, so does the volume of food waste.

DATA ANALYSIS AND INTERPRETATION

Demographic Characteristics of the Respondents

Data are collected from 107 male millennial respondents (composed of 53.5% of the sample) and 93 female millennial respondents (composed of 46.5% of the sample). Table 1 displays the distribution of responders.

TABLE 1: GENDER					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	MALE	107	53.5	53.5	53.5
	FEMALE	93	46.5	46.5	100.0
	Total	200	100.0	100.0	

Data are collected from 200 millennial respondents residing in Chennai city using convenience sampling. Among the 200 millennial respondents, 80 respondents are from the age group of 23 to 28 years, 75 millennial respondents are from the age group of 29 to 33 years and the remaining 45   millennial respondents 34 to 38 in Chennai. This distribution is shown in **Table 2**

Table 2: Millennial Age Group				
	Frequency	Percent	Valid Percent	Cumulative Percent

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Age Group	23 To 28	80	40.0	40.0	40.0
	29 To 33	75	37.5	37.5	77.5
	34 To 38	45	22.5	22.5	100.0
	Total	200	100.0	100.0	

Reliability Analysis

Before conducting the main analysis, the reliability of the variables is measured. All the Independent and Dependent Variables are having a Cronbach's alpha value of above 0.7 hence their reliability is satisfactory. The following table 3 shows the Cronbach's value for each variable.

Table 3: Construct Reliability Analysis (n=200)

Variables	Cronbach's Alpha	AVE	CRE
Socio-Demographic Variable	0.923	0.72	0.94
Psychological Factors	0.915	0.55	0.86
Economic Factors	0.863	0.49	0.82
Health Consciousness Factors	0.859	0.56	0.86
Millennial Purchasing Behavior	0.842	0.58	0.77

The above table shows the reliability analysis findings for each variable. Overall, the study found great reliability, with coefficient alphas ranging from 0.777 to 0.942, demonstrating that the scale is reliable.

T-test

The t-test is used to compare gender and five key millennial generation factors. The t-test findings are reported in Table 4 below.

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Table 4 – t-test results					
	GENDER	N	Mean	t- value	Significance
Socio-Demographic Variable	MALE	107	3.98	2.822	0.005
	FEMALE	93	3.67		
Psychological Factors	MALE	107	3.85	3.318	0.001
	FEMALE	93	3.41		
Economic Factors	MALE	107	3.79	2.793	0.006
	FEMALE	93	3.38		
Health Consciousness Factors	MALE	107	4.34	-0.686	0.494
	FEMALE	93	4.43		
Millennial Purchasing Behavior	MALE	107	3.85	-0.509	0.612
	FEMALE	93	3.92		

One-way ANOVA

Table 5 displays the results of the One-Way ANOVA test.

TABLE 5- ONE-WAY ANOVA						
		Sum of Squares	Df	Mean Square	F	Sig.
Socio-Demographic Variable	Between Groups	.507	2	.254	.398	.672
	Within Groups	125.688	197	.638		
	Total	126.195	199			

Psychological Factors	Between Groups	1.221	2	.610	.661	.518
	Within Groups	181.974	197	.924		
	Total	183.195	199			
Economic Factors	Between Groups	.327	2	.164	.148	.862
	Within Groups	217.468	197	1.104		
	Total	217.795	199			
Health Consciousness Factors	Between Groups	.943	2	.472	.626	.536
	Within Groups	148.412	197	.753		
	Total	149.355	199			
Millennial Purchasing Behavior	Between Groups	2.721	2	1.360	1.291	.277
	Within Groups	207.634	197	1.054		
	Total	210.355	199			

From the above Table 5 we can infer that all the p-values in the one-way ANOVA table are insignificant that is they are above 0.05, Socio-Demographic Variable (F-value: 0.398), Psychological Factors(F-value: 0.661), Economic factors(F-value:0.148), Health Consciousness Factors (F-value:0.472) and Millennial Purchasing Behavior (F-value: 1.291)) do not differ.

TEST FOR NORMALITY OF THE RESEARCH STUDY

Variables	Kolmogorov-Smirnov Statistic	Shapiro-Wilk Statistic
Socio-Demographic Variable	0.240	0.796

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Psychological Factors	0.361	0.698
Economic Factors	0.384	0.637
Health Consciousness Factors	0.300	0.789
Millennial Purchasing Behaviour	0.384	0.651

The findings of two well-known normality tests, the Kolmogorov-Smirnov Test and the Shapiro-Wilk Test, are presented in Table 6. The Shapiro-Wilk Test is best suited for small sample sizes (50 samples), however, it can also handle sample sizes up to 2000.

A Shapiro-Wilk test ($P > 0.05$) (Shapiro-Wilk, 1965; Razaliand wag 2011). Visual examination of the histogram, normal Q-Q plots, and box plots revealed that the variables of Socio-Demographic Variables, Psychological Factors, Economic Factors, Health Consciousness Factors, and Millennial Purchasing Behavior with kurtosis of all variables items are within the accepted level of (1.906 to - 1.906).

Multiple Regressions

Model Summary				
Model	R	R Square	Adjusted R Square	Std. An error in the Estimate
1	.978	.936	.978	.14367
a. Predictors: (Constant), Socio-Demographic Variable, Psychological Factors, Economic Factors, Health Consciousness Factors, Millennial Purchasing Behavior				

Coefficients				
Model	Unstandardized	Standardized		

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		Coefficients		Coefficients	t	Sig.
		B	Std.Error	Beta		
1	Content	.665	.063		9.676	.000
	Socio-Demographic Variable	.441	.28	.411	10.305	.000
	Psychological Factors,	.245	.16	.451	12.534	.000
	Economic Factors	.279	.41	.323	8.221	.000
	Health Consciousness Factors	.280	.49	.486	7.169	.000
	Dependent variable: Millennial Purchasing Behavior					

Multiple regression is carried out between Socio-Demographic variables, Psychological Factors, Economic Factors, and Health Consciousness Factors. From the regression output, we can infer that all four variables socio Demographic Variable (0.441), Psychological Factors (0.245), Economic Factors (0.279), and Health Consciousness (0.280) have a significant positive impact on Millennial Purchasing Behavior with the P values less than 0.001 and R-square being 0.964.

LIMITATIONS OF THE RESEARCH STUDY

This study is not an exception to the rule that every research study has its limitations. The following is a list of the research study's limitations:

➢ This research's failure and recovery studies have certain shortcomings that will need to be addressed in future research on the issue.

➢ To begin, the lack of a clear industrial emphasis in the current study was deemed a weakness of the study.

➢ As a result, future studies must concentrate on certain sectors.

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CONCLUSION:

From the research, it is found that all four variables socio Demographic Variables, Psychological Factors, Economic Factors, and Health Consciousness have a significant positive impact on Millennial Purchasing Behavior. It is also evident that the effective and ineffective handling of foods purchased will influence food wastage. Thus, these factors must be analyzed based on their level of influence to decrease the level of food wastage.

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