

Consumer Buying Behavior and Preference Determinants for Bottled Water in Odisha

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Abstract

Water is considered to be a prime natural resource, a basic human need and the elixir of human, faunal and floral life. According to experts, water is ranked second essential thing in this world next to oxygen. One can live without food for many days, but one can only survive for a few days without water. The availability of packaged drinking water for human consumption at recent times is a boon to humankind. The rise in health consciousness, increase in the tourism sector and the wide availability of packaged drinking water, had raised the per capita consumption of bottled water in India. The study has made an attempt to analyse the consumer preference towards packaged drinking water in Odisha. The literature related to the study was thoroughly reviewed and five independent variables (demographic & socio-economic factors, marketing factors, psychological factors, sensory factors and social influence) were identified as predictors for consumer preference towards packaged drinking water. The aim of the study is to empirically test the cause and effect relationship between those variables. The research involves data from both primary and secondary sources to reach at a specific conclusion. Purposive samples of 352 were selected from the population in the study area. The data collection instrument that found suitable and used in this study was a questionnaire with seventy-six questions in total. Statistical tool SPSS 20 has been applied to classify and analyse the data collected in the survey undertaken. The data were processed with the help of appropriate analytical tools like mean, standard deviation, t-test, ANOVA, and regression analysis. Multiple determinants shape consumer behaviour toward packaged drinking water. Thus, consumers' preferences, behaviour and their perception of packaged drinking water are heterogeneous and depend not only on the appearance and sensory properties but also on psychological, demographical, socio-economical, marketing and social aspects.

Introduction

Water is life, and the existence of living beings on earth linked with water. The water is essential for the survival of every living element on the planet. Earth is the only planet in the solar system that contains water. Water makes up about 71% of the earth surface, out of which 96.5% is of saltwater and 3.5% of fresh water in the form of rivers, lakes and glaciers. It can be evident from the pages of history that the human civilisations were established and flourished in the banks of rivers as water from the river were essential for survival and farming. Water is considered to be a prime natural resource, a basic human need and the elixir of human, faunal and floral life. According to experts, water is ranked second essential thing in this world next to oxygen. Water plays a significant role in many of the biological activities like digestion and absorption of food; it also regulates body temperature, and removes toxins and other wastes. Water also cushions joints and protects tissues and organs including spinal cord from shock to damage. In short, one can live without food for many days, but one can only survive for a few days without water. The availability of water, however, continues to change drastically and dramatically. In fact, due to the failure of monsoon and continued consumption for domestic and industrial purposes, the groundwater table had been depleted in several parts of the country. The scarcity of water has become a common problem in many places, and its availability has turned out as a significant social and economic concern.

India is the second largest country in the world according to the populations. The availability of packaged drinking water for human consumption at recent times is a boon to humankind. The rise in health consciousness, increase in the tourism sector and the wide availability of packaged drinking water, had raised the per capita consumption of bottled water in India. The total market valued at Rs.60 billion in 2013, among which the top five players accounted for around 67 per cent of the market share. The market is expected to grow at CAGR of 22 per cent, to reach Rs.160 billion in 2020. The bottled water industry in India is witnessing a growth since the late 1990s soon after Bisleri launched packaged drinking water in the country. This growth fuelled by advertising strategies by the industry players that propagated "purity and healthy aspect of bottled water". Today, with a rise in health consciousness, lousy quality of tap water, and the ease of availability of packaged water, the per capita consumption of bottled water in India is on the increase.

The study has made an attempt to analyse the consumer preference towards packaged drinking water. The literature related to the study was thoroughly reviewed and five independent variables (demographic & socio-

economic factors, marketing factors, psychological factors, sensory factors and social influence) were identified as determinants for consumer preference on packaged drinking water. The aim of the study is to empirically test the cause and effect relationship between the variables. This paper starts by first delineating the concepts of consumer preference and demographic & socio-economic factors, marketing factors, psychological factors, sensory factors, social influence and proceeds to outline the expected relationships in a research model. Research methodology is explained, results and implications are discussed, and finally possible recommendations are given at the end.

Literature review

By reviewing the relevant literature, it is inferred that scholars have introduced various elements of consumer preference and studied the relationship between variables. This paper extracted various concepts on demographic factors, socio-economic factors, marketing factors, psychological factors, sensory factors, and social influences with their relationship with consumer preference from various studies are discussed below;

Consumer Preference

A "Consumer" is an individual who buys any goods or hires any service for valuable consideration. Consumers are individuals and households who buy goods and services for personal consumption (Kotler, 2009). Preference can be considerably changed by decision-making processes, evaluation of choices (Brehm, 1956; Sharot et al., 2009), even in an unconscious way for a given product or service (Coppin et al., 2010). The term "preference" is used in a variety of related, but not identical, ways in the scientific literature. It is necessary to make explicit the sense in which the term is used in different social sciences. In psychology, preferences could be defined as an individual's attitude towards a set of objects, typically the outcome of an explicit decision-making process (Lichtenstein & Slovic, 2006). Alternatively, one could interpret the term "preference" to mean evaluative judgment in the sense of liking or disliking an object which is the most typical definition employed in psychology (Scherer, 2005). However, it does not mean that preference is necessarily permanent over a period of time. Elling (1984) explained consumer preference as that character of a consumer which, when the product preferred by him was not available with one dealer, made him walk to another dealer for the same product. The way consumer is fulfilled or unhappy about a product after his purchase is called as customers' preference. Once the customer likes the product, there are more chances of purchasing it again (Kotler 2009).

Determinants of Consumer Preference

Ravichandran and Narayanranjan (2004) studied factors determining the brand preference of consumer durables is mostly influenced by factors like advertisements, price, quality, performance and availability of products. Kotta Thomas (1992) in his study examines the influence of extrinsic factors like price, the reputation of the product and advertisements have an impact on developing strong consumer preference for a product. Haneef et al. (2006) has investigated that consumer behaviour is influenced actively by cultural, social, personal, and psychological factors. Several studies have been conducted to examine how consumers evaluate different product attributes in numerous food products. Health, nutrition, taste, price, convenience are some of the criteria consumers use to determine which product is more attractive (Bech-Larsen et al., 1999). In the following sections will review the literature on the factors that have an impact on developing a positive preference for packaged drinking water. The elements are broadly classified into demographics factors, marketing factors, psychological factors, sensory appeal, and social influence.

Demographic & Socio-economic Factors and Consumer Preference

The demographic and socio-economic profile gives us vital and measurable statistics of a population (Schiffman and Kanuk, 2009). The significant variables of the demography and socio-economic analysis include age, gender, family cycle, size, income, occupation, literacy level and geographical location. Nandamuri and Gowthami (2012), in their research related to the role of demographics on attitude towards branded products, tried to find out the possible link between consumer demographics. The study found that out of the five demographic factors tested (i.e. age, gender, occupation, education and income), income and occupation turned out to have a significant impact on the behaviour. Age and education were found to be moderately influencing consumers. Rajput et al. (2012) analyzed the significance of demographic profile of consumers affecting the purchase decision of branded garments and to observe from gender perspective the consumer awareness about different apparel brands available in the Indian market. There were several reasons to justify a division into age groups for food choice behaviour. People differ in cognitive styles and abilities at different ages. Thus, looking across age groups provides the possibility for detection of possible cohort effects and developmental trends for

food choice (Lavin and Lawless, 1998). Education plays a central role in shaping food selection, and sometimes education and occupation have indirect links with each other. Binkley and Golub (2007) compared grocery purchase patterns of regular and diet soft drink consumers and investigated whether differences in the purchased quantity of diet soft drinks were associated with differences in purchases of other food categories. For the educational level, O'Donovan and McCarthy (2002) stated that individuals with higher education level generally are more likely to purchase organic food than other people. Although there are many research, find a positive relationship between education and food consumption (Cunningham, 2002; O'Donovan and McCarthy, 2002), while others see a negative relation (Wilkins and Hillers, 1994; Thompson and Kidwell, 1998).

Marketing Factors and Consumer Preference

The marketing mix comprises a set of marketing decisions that management make to implement the positioning strategy of the business and to achieve its objectives (Doyle, 2002). Marketing literature identifies the four P's (4P's) (product, price, place and promotion) as the components of the marketing mix (George 2004; McCarthy et al., 2003). Okioga (2007) in his study states that 4P's applied by Sachet water Vendors Product that is Product, Price, Place, and Promotion. They consider the water quality, for both factory-produced bottled and sachet water, and the brand name and company reputation have significant impact on consumer's purchase intention. The pricing of a product is a crucial component of a company's marketing strategy and planning process (Thompson and Kidwell, 1998; Doyle, 2002). The difference in pricing can also be used to differentiate the company's different products in terms of differences in quality (Erdem et al., 2006). The promotional mix consists of a variety of personal and non-personal communication techniques. These two necessary forms of promotion are usually integrated into a coherent plan to achieve a company's marketing objectives (Kotler, 2009). Sales promotions consist of a wide variety of activities including displays, trade shows, coupons, contests, samples, premiums, product demonstrations and other ad hoc activities that marketers might consider suitable for stimulating desire and interest in their products (Erdem et al., 2006). Many fast-moving consumer goods are distributed through a traditional distribution channel, that is, from the manufacturer to the wholesaler, to the retailer, and finally to the consumer (Kotler 2009). The bottled water's wide acceptability is related to the convenience distribution strategy along with the belief that it is purer than tap water, making it a healthy alternative to other beverages (Leivadara et al., 2008).

Psychological Factors and Consumer Preference

According to Kotler (2009), the Psychological factors influences consumer buying behavior. It constitutes motivation, perception, learning, and beliefs & attitudes. The psychological factors included in this study are mentioned next. First, Attitude refers to a person's feelings toward and evaluation of an object, person, issue or event (Fishbein & Azjen, 1975), and consequently the distinctive characteristic of an attitude is its affective/evaluative nature (Axelson & Brinberg, 1989). Attitudes are useful in marketing because they measure an individual's feelings toward a specific object and suggest a tendency to act or a behavioral intention (Britt, 1966). Second, perceived risk is defined as a potential expected loss; it will have a negative influence on the purchase attitude of a customer (Peter and Ryan, 1976); Featherman and Pavlou, 2003). Mitchell and Boustani (1994) state that when consumers make a purchasing decision they are more likely to minimize the risk instead of maximizing the perceived value. Third, product knowledge of consumers may influence their purchase intention in multiple ways. Rao and Monroe (1988) show that product knowledge affects the information processing of consumers and consequently influences their purchasing behaviour. Bettman and Park (1980) point out that product knowledge can lower risk and uncertainty. Ferrer and Whybark (2000) show that consumers who lack knowledge about the quality level of products are more likely to buy new products. Fourth, product benefits are the perceived rewards or gains made from participation in physical activity (Dergance et al., 2003). When the reward of perceived benefits outweighs the negotiation of perceived constraints, involvement in physical activity can commence (Cardenas et al., 2009). Both social and personal benefits can be perceived by consuming products. Regarding social benefits, significant resource and energy savings, as well as solid waste reductions, are achieved through the recovery of used components (Michaud and LIerena, 2010). At last, lifestyle as an external expression of individuals about their needs, opinions and tendencies to participate in purchase decisions (Lazer, 1963; Kindra, 1994). One of the most important models for food consumption behaviour, Grunert's food-related lifestyle model (Grunert., 1993), investigates the lifestyle of the consumers by applying 69 different criteria and the relationship between consumer values and concrete product attributes is indirect.

Sensory Factors and Consumer Preference

Sensory appeals, such as appearance or colour, texture and taste or smell are some of the important influencing factors on the acceptance of food and in eating behaviour for consumers (Radder and Roux, 2005). In case of packaged drinking water, taste and visual appearance are considered to be most significant sensory factors responsible for shaping consumer preference for it. People are most likely to consume food that they evaluate as

tasty. Therefore, taste can be considered a minimum standard for food consumption (Glanz et al., 1998). Biloukha and Utermohlen (2000) found predictors of food choices in Ukrainian consumers who were 303 males and 616 females, ages 18-60. Taste was the most significant predictor of food choice for this population. Taste was the factor most highly correlated with the frequency of consumption for 20 foods for males and 23 foods for females. The sensory attraction of a food product and the visual appearance of its packaging are powerful influences on consumer acceptability (Tuorila and Pangborn, 1988; Cardello, 1994). Packages and labels have only a few seconds to make an impact on the consumer's mind Dantas et al., (2004); during that time, it must catch the consumer's eye, and convince the shopper that it is the optimum option on the shelf (Hutchings, 2003).

Social Influence and Consumer Preference

Social influence is an essential subject in experimental social psychology (Kelman, 1961). Turner (1991) defined social impact as "the processes whereby people directly or indirectly influence the thoughts, feelings and actions of others". Social influence is related to information about other people, and it may not necessarily happen via face-to-face interactions (Robins et al., 2001; Trusov et al., 2010). In contrast with the past (when people's influence was limited to their narrow social circle), social influence has broadened due to use of the Internet and social media (Kwahk & Ge, 2012). An individual's decisions are expected to be influenced by the behaviour of people in their social network (Kahn, 2007; Lane & Potter, 2007) and social norms which can be regarded as the behaviour of the collective society (Araghi, et al., 2014). Several qualitative studies found that social influence plays a significant positive role in Electronic Vehicle promotion (Axsen & Kurani, 2011; Axsen, et al., 2013).

Research objective, hypotheses and framework

The primary objective of the study is to investigate the influence of demographic and socio-economic characteristics, marketing mix factors, psychological factors, sensory factors and social influence on consumer preference for packaged drinking water. The hypotheses were formulated after reviewing the related literature and are given below;

- H₁: There is no perceptual difference towards consumer preference across demographic and socio-economic characteristics.
- H₂: There is a positive association between Marketing mix factors and consumer preference towards packaged drinking water.
- H₃: There is a positive influence of psychological factor on consumer preference towards packaged drinking water.
- H₄: There is a positive impact of sensory factors on consumer preference towards packaged drinking water.
- H₅: The purchase preference of consumers towards packaged drinking water is positively affected by social influence.

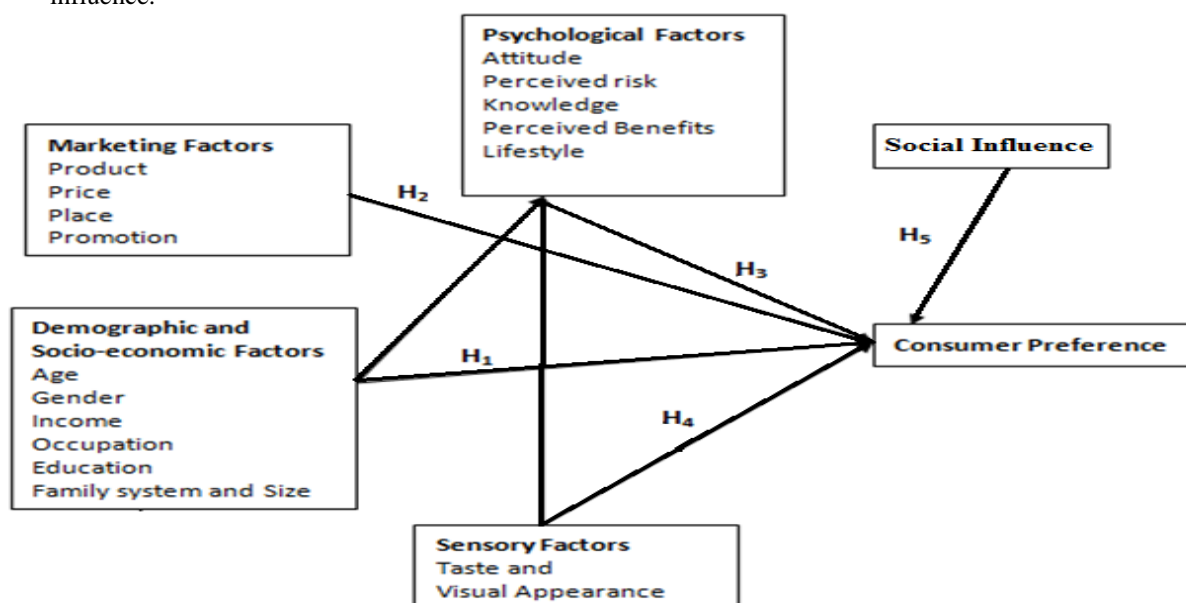


Figure 1: Conceptual Model (Source: Literature Review)

Research methodology

The research design is empirical in nature. The research involves data from both primary and secondary sources to reach at a specific conclusion. The secondary data pertaining to the study was collected from the different

sources. With respect to the review of literature and previous studies were collected from libraries. In addition to the above the researcher has collected articles and research papers from various journals, magazines and the e-journal of the university library and INFLIBNET. The survey method was employed for the collection of the primary data from the selected sample respondents. The sample respondents here are the consumers of packaged drinking water. The most appropriate sampling method for this study is purposive sampling, a form of non-probability sampling. A purposive sample of 352 was selected from the population in the study area. The data collection instrument that found suitable and used in this study was a questionnaire with seventy-six questions in total. The questionnaire included two sections. The first section was intended to measure the demographic and socio-economic characteristics of consumers and questions were asked on their age, gender, income, occupation, family system and size. The second section included all identified constructs affecting a consumer preference. This includes questions on various determinants of consumer preference. This section made use of a five-point interval Likert scale ranging from “1= strongly disagree” to “5=strongly agree” to measure consumers’ perception on marketing elements, psychological elements, sensory factors of the product, social influence and their impact on preference towards of packaged drinking water. Statistical tool SPSS 20 has been applied to classify and analyse the data collected in the survey undertaken. The data were processed with the help of appropriate analytical tools like mean, standard deviation, t-test, ANOVA, and regression analysis. The multiple regression equation for the study is given below;

$$Y = \alpha + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + \epsilon$$

(where, X_1 = marketing factors, X_2 = psychological factors, X_3 = Sensory factors and X_4 = Social influence and Y = consumer preference)

Data analysis

The data collected from the field were put into excel sheet for editing, compiling and manipulation. Then the data were transferred to SPSS for further analysis. Statistical techniques like descriptive statistics, inferential statistics and multivariate analysis were used to draw inference about the population.

Descriptive statistics

Many empirical studies proved that there is a relationship between demographic and socioeconomic background of consumers and their preference for packaged drinking water. The data on demographic factors collected from 352 respondents are presented in Table 1.

Table 1: Demographic and Socio-economic profile of consumers

Variable	Levels	Frequency	Percentage
Gender	Male	232	65.9
	Female	120	34.1
Age	Up-to 25	132	37.5
	25-35	128	36.36
	35-45	56	15.91
	45-55	32	9.09
	Above 55	4	1.14
Marital Status	Unmarried	196	55.68
	Married	156	44.32
Family System	Nuclear Family	212	60.23
	Joint Family	140	39.77
Family Size	Small (Below 3)	56	15.9
	Medium (3-5)	180	51.1
	Large (Above 5)	116	33
Education	Up-to Matriculation	52	14.77
	Graduates	212	60.23
	Others	88	25
Occupation	Employed	132	37.5
	Professional	48	13.64
	Self-employed	68	19.32
	Student	84	23.86
	Unemployed	20	5.68

Source: primary data

The table 1 shows that among the 352 respondents, male constitutes the significant proportion of 65.9% and the female represent only 34.1%. It can also be depicted from the above table that the highest numbers of respondents

(37.50%) are in the age group of below 25 years of age followed by the age group of 25-35 (36.36%) and the age group of 35-45 years (15.91%). The respondents are in the age group of between 45-55 year is 9.09%. The least age category of the respondents was above 55 (1.14%). With regard to the marital status of the respondents, more than half of the respondents (55.68%) were unmarried while the remaining respondents were married (44.32%). Similarly, more than half of the respondents (60.23%), covered by the study was nuclear Family. The rest of the respondents were joint Family (39.77%). Out of 352 consumers, 180 (51.1%) respondents were from medium size family (3 - 5 members), 116 (33.3%) respondents were from large size family (Above five members), and 56 (15.9%) respondents were from small size family (Below three members). According to educational background, majority of respondents (60.23%) have completed their Graduation followed by the respondents (25.00%) who have completed their education qualification other than matriculation and graduation, and only 14.77% of respondents have completed their matriculation. Accordingly, the majority were employed (37.50%), followed by the students (23.86%) and 19.32% of respondents were self-employed, 13.64 % of respondents were professionals, and 5.68 % respondents were unemployed. Among the total respondents, most of the respondents who consume packaged drinking water were employed.

Inferential statistics

In this section, t-test and ANOVA test were used to understand the perceptual difference between the consumers across gender, age, income, occupation, family system and size. The independent samples t-test compares the means of two independent groups to determine whether there is any statistical evidence that the associated population means are significantly different or not. Whereas, one-way analysis of variance (ANOVA) is used to determine whether there are any statistically significant differences between the means of three or more independent (unrelated) groups. The first primary hypothesis “H1: There is a perceptual difference towards consumer preference across demographic and socio-economic characteristics.” and its secondary hypotheses were test in the next section.

T- Test for difference in means of purchase preference across gender and family system.

To study the perceptual difference across gender and family system were tested using a t-test for significant difference between means is given in table 2 and 3 respectively.

Table 2: Independent Samples t-test for Perceptual difference towards purchase preference among consumers across gender

Construct	Gender	N	Mean	T-value	d.f.	P-value
Purchase Preference	Male	232	3.1121	1.820	350	.070
	Female	120	2.9444			

An analysis of difference of means for purchase preference construct across gender showed that the P-value or the significance value corresponding to the t-test for construct was 0.07, which was higher than 0.05 and, hence the null hypothesis H1_(a) is accept at a 5% level of significance. It implied that there is no significant perceptual difference towards consumer preference across gender. Since, packaged drinking water has become an essential commodity in the day-to-day life of the consumers, both male and female share a similar perception towards purchase preference in respect to it. The importance of using packaged drinking water is realised by both types of consumers lead to generate similar perception toward packaged drinking water.

Table 3: Independent Samples t-test for Perceptual difference towards purchase preference among consumers across family system

Construct	Family system	N	Mean	T-value	d.f.	P-value
Purchase Preference	Joint	140	3.1905	2.534	350	0.012
	Nuclear	212	2.9654			
Note: F=2.492, P-value=0.115, Hence, Equal variances are assumed						

It is evident from the table 3 that the p-value for the t-statistics to study the perceptual difference towards purchase preference across the family system is 0.012, which is less than 0.05 and hence, the null hypothesis H1_(b) is not accepted. It was implied that there is a significant difference between the mean perceptions towards purchase preference for packaged drinking water across the family structure.

ANOVA for difference of means across age, income, occupation, education and family size

The hypotheses on the perceptual difference on consumer preference towards packaged drinking water across age, income, occupation, education and family size are tested through ANOVA. The analysis table for ANOVA is given below. It can be observed from table 4 that p-value for difference of means for purchase preference construct across age was less than 0.05, hence null hypothesis H1_(c) is not accepted. This implied that there was a

significant perceptual difference towards consumer preference across age. The health of an individual is highly associated with ageing; as age increases the health condition of a person starts to deteriorate, and people tend to show more concerned about healthy diet and lifestyle. It could be the underlying reason behind the perceptual difference towards packaged drinking water across age.

Table 4: ANOVA for difference of means across age, income, occupation, education and family size

Variable	Variations	Sum of Squares	df	Mean Square	F	Sig.
Age	Between Groups	20.316	4	5.079	7.973	0.000
	Within Groups	221.053	347	0.637		
	Total	241.369	351			
Income	Between Groups	2.234	2	1.117	1.63	0.197
	Within Groups	239.134	349	0.685		
	Total	241.369	351			
Occupation	Between Groups	13.911	4	3.478	5.306	0.00
	Within Groups	227.458	347	0.655		
	Total	241.369	351			
Educational Qualification	Between Groups	0.242	2	0.121	0.175	0.839
	Within Groups	241.127	349	0.691		
	Total	241.369	351			
Family size	Between Groups	5.432	2	2.716	4.09	0.018
	Within Groups	231.728	349	0.664		
	Total	237.16	351			

Similarly, the p-value 0.197 corresponding to the F-test for difference of means across income is higher than 0.05, which implied that there is no significant difference in perception towards purchase preference of packaged drinking water between the income groups. The null hypothesis H1(d) is accepted. As a result, the finding suggested that there was no significant difference to be found in the mean scores of consumer preference with respect to income group. The low pricing for the product makes it affordable for all type of consumers with different income level and same amount utility is derived from the all types of consumers.

Third, the significance value for the F-statistics is 0.000 which is less than 0.05. The null hypothesis is not accepted and the alternative hypothesis H1(e) is accepted. It implied that there is a significant difference in perception towards consumer preference for packaged drinking water across occupation. The working professionals and self-employed prefers to consume packaged drinking as it is convenient to carry, readily available and safe source of water to drink while travelling and working in fields. Since, unemployed and students spend most of their time either at home or educational institutions prefer to consume water from water purifiers or taps.

Similarly, the P-value obtained from the analysis of the overall mean scores of across educational qualification of the respondents was 0.839 which is higher than 0.05. The null hypothesis H1(f) is accepted, and it was concluded that there was no significant difference among overall means scores of perception on consumer preference towards packaged drinking water at 5% level of significance. The benefits of packaged drinking water are known to a large number of the consumer through advertisements, word of mouth and recommendations of salespersons etc. In case of family size, the p-value corresponding to the F-test for difference of means across family size is less than 0.05 and null hypothesis was not accepted, which implied that there is a significant difference in perception towards purchase preference of packaged drinking water between the family sizes.

Regression Analysis

Summary of Multiple Regression Analysis treating Market Factors, psychological factors, sensory factors, and social influence as predictors and purchase preference as criterion variable was shown in table 5 and 6. The analysis also included the calculation of tolerance and VIF (variance- inflating- factor) to ascertain the existence of correlation among the independent variables in the given model.

Table 5: Model Summary for the relationship between Market Factors, psychological factors, sensory factors, social influence and purchase preference

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.633 ^a	.400	.393	.64020

Note: F= 57.912, p-value = 0.000
a. Predictors: (Constant), Social Influence, Sensory factors, Psychological Factors, Marketing Factors

In terms of the relationship between independent variables and consumer preference, the adjusted $R^2 = 0.393$. It was suggested that the independent variables explained 39.3 per cent of the variance in the consumer preference. It was observed that the overall regression model was significant ($F=57.912, p<0.00$). This result suggests that the model, overall, results in a significantly good degree of prediction of the dependent variable.

Table 6: Regression analysis between Marketing Factors, psychological factors, sensory factors, social influence and consumer preference

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	-0.652	0.297		-2.198	0.029
Marketing Factors (X_1)	0.791	0.109	0.392	7.257	0.000
Psychological Factors (X_2)	0.496	0.09	0.283	5.527	0.000
Sensory factors (X_3)	0.168	0.053	0.148	3.153	0.002
Social Influence (X_4)	0.432	0.056	0.372	7.654	0.000

All dimensions were statistically significant ($\text{Sig. } t < 0.05$). All dimensions remained in the equation explaining overall consumer preference. The higher the beta coefficient, the more is the contribution of factors in explaining overall service quality. As shown in Table 6, the consumer preference was influenced by all four dimensions. The regression analysis indicated that the marketing factors, psychological factors, sensory factors and social influence had a significant and positive relationship with consumer preference. Marketing factors (X_1) also had a significant and positive relationship with the purchase preference ($p<0.05; \beta= 0.392$), which implied that the null hypothesis H_2 was rejected and the alternative hypothesis was accepted. The psychological factors (X_2) had a significant positive effect on purchase preference ($p<0.05; \beta= 0.283$). Thus, H_3 , proposing that “there is a positive influence of psychological factor on consumer preference towards packaged drinking water”, was supported by this study. The sensory factors (X_3) of packaged drinking water had a significant and positive effect on purchase preference ($p<0.05; \beta= 0.148$). Hence, the hypothesis H_4 was also supported by the study. Similarly, social influence (X_4) had a significant positive effect on purchase preference ($p<0.05; \beta= 0.372$). Hence, the hypothesis H_5 was also supported by the study. Based on the beta coefficient values, marketing factors had the highest impact on consumer preference followed by social influence, psychological factors, and sensory appeal of products. It can be understood that marketing factors like product, price, place and promotion of packaged drinking water put a significant impact towards developing a positive purchase preference among the consumers. If the packaged drinking water is good in quality, adequately priced, readily available and well communicated then the consumers carry a positive intention to purchase. Similarly, the social influence as a factor played an important role in developing a preference towards packaged drinking water. Social influence is a situation where a person's emotions, opinions or behaviours are affected by others intentionally or unintentionally. In the case of packaged drinking water, the consumers do follow others and intend to use it while travelling, staying away from home, in family functions and during a shortage of drinking water.

The regression equation for the above model can be written as;

$$\text{Consumer Preference (Y)} = -0.652 + 0.392 (X_1) + 0.283 (X_2) + 0.148 (X_3) + 0.372 (X_4)$$

Conclusion

Multiple determinants shape consumer behaviour toward packaged drinking water. Thus, consumers' preferences, behaviour and their perception of packaged drinking water are heterogeneous and depend not only on the appearance and sensory properties but also on psychological, demographical, socio-economical, marketing and social aspects. Understanding this is a complex issue. A better understanding of this complexity may help improving the competitiveness of the packaged drinking water industry for instance, by the means of effective strategies to provide more competitive products at best price, with convenient distribution channel and proper sources of information. In addition, the psychological factors play an important role in shaping consumer preference towards packaged drinking water. The product benefits has the most psychological impact in the shaping the consumers preference. Besides, consumer reference for packaged drinking water is affected by sensory appeal and social influence. The taste and visual appearance as sensory elements also signifies the consumer preference. Appropriate strategies should be adopted to promote product in the respective markets to create fair image of their brand which in turns could help in creating a favourable word of mouth. Since, demographic and socio-economic factors of buyers are crucial for developing a preference for the product the marketers should study the market thoroughly and understand their respective preference.

References

- [1] Araghi, Y., Kroesen, M., Molin, E., & van Wee, B. (2014). Do social norms regarding carbon offsetting affect individual preferences towards this policy? Results from a stated choice experiment. *Transportation Research Part D: Transport and Environment*, 26, 42–46.
- [2] Axelson, M. L., & Brinberg, D. (1989). Measures of Food-Related Behavior. In *A Social-Psychological Perspective on Food-Related Behavior* (pp. 5-29). Springer, New York, NY.
- [3] Axsen, J., Kurani, K. S., McCarthy, R., & Yang, C. (2011). Plug-in hybrid vehicle GHG impacts in California: Integrating consumer-informed recharge profiles with an electricity-dispatch model. *Energy Policy*, 39(3), 1617–1629.
- [4] Axsen, J., Orlebar, C., & Skippon, S. (2013). Social influence and consumer preference formation for pro-environmental technology: The case of a U.K. workplace electric-vehicle study. *Ecological Economics*, 95, 96–107.
- [5] Bech-Larsen, T., & Grunert, K. G. (2003). The perceived healthiness of functional foods: A conjoint study of Danish, Finnish and American consumers' perception of functional foods. *Appetite*, 40(1), 9-14.
- [6] Bettman, J.R. and Park, C.W. (1980), "Effect of prior knowledge and experience and phase of the choice process on consumer process: a protocol analysis", *Journal of Consumer Research*, Vol. 7 No. 3, pp. 234-252.
- [7] Biloukha, O.O. and Utermohlen, V. (2000) Correlates of food consumption and perceptions of foods in an educated urban population in Ukraine, *Food Quality and Preference*, 11,475-485.
- [8] Binkley, J. and Golub, A. (2007) Comparison of grocery purchase patterns of diet soda buyers to those of regular soda buyers, *Appetite*, 49(3), 561-571.
- [9] Brehm, J.W. (1956). Post-decision changes in desirability of choice alternatives. *Journal of Abnormal and Social Psychology*, 52, 384-389.
- [10] Britt, S.H. (1966), *Consumer Behavior and the Behavioral Sciences*, Wiley, New York, NY.
- [11] Cardello, A. V. (1994). Consumer expectations and their role in food acceptance. In *Measurement of food preferences* (pp. 253-297). Springer, Boston, MA.
- [12] Cardenas, D., Henderson, K. A., & Wilson, B. E. (2009). Physical activity and senior games participation: benefits, constraints, and behaviors. *Journal of aging and physical activity*, 17(2), 135-153.
- [13] Coppin, G., Delplanque, S., Cayeux, I., Porcherot, C., & Sander, D. (2010). I'm no longer torn after choice: How explicit choices can implicitly shape preferences for odors. *Psychological Science*, 21, 489-493.
- [14] Cunningham, R. (2002, March). Who is the organic consumer?. In *Growing Organic conference*, Red Deer, Edmonton, March (Vol. 11, p. 12).
- [15] Dantas, M.I., V.P. Minim, R. Deliza, and R. Puschman. (2004). "The effect of packaging on the perception of minimally processed products." *Journal of International Food & Agribusiness Marketing*, 16(2): 71-83.
- [16] Dergance, Jeannae M., Walter L. Calmbach, Rahul Dhanda, Toni P. Miles, Helen P. Hazuda, and Charles P. Menton. "Barriers to and benefits of leisure time physical activity in the elderly: differences across cultures." *Journal of the American Geriatrics Society* 51, no. 6 (2003): 863-868.
- [17] Doyle, G. (2002). *Media ownership: The economics and politics of convergence and concentration in the UK and European media*. Sage.
- [18] Elling, A. Karl. (1984). *Introduction to Modern Marketing Management - An Applied Approach*. New York: The Macmillan Company.
- [19] Erdem, T., Swait, J., & Valenzuela, A. (2006). Brands as signals: a cross-country validation study. *Journal of marketing*, 70(1), 34-49.
- [20] Featherman, M. S., & Pavlou, P. A. (2003). Predicting e-services adoption: a perceived risk facets perspective. *International journal of human-computer studies*, 59(4), 451-474.
- [21] Ferrer, G. and Whybark, D.C. (2000), "Successful remanufacturing systems and skills", *Business Horizons*, Vol. 43 No. 6, pp. 55-64.
- [22] Fishbein, M. and Ajzen, I. (1975), *Belief, Attitude, Intention and Behavior: An Introduction to Theory and Research*, Addison-Wesley, Reading, MA.
- [23] George, J. F. (2002) Influences on the intent to make Internet purchases, *Internet Research*, 12 (2), 165-180.
- [24] Glanz, K., Basil, M., Maibach, E., Goldberg, J. and Snyder, D. (1998) Why Americans eat what they do: Taste, nutrition, cost, convenience, and weight control concerns as influences on food consumption, *Journal of the American Dietetic Association*, 98(10), 1118-1126.
- [25] Grunert, K. G. (1993) Towards a concept of food-related lifestyle, *Appetite*, 21,151-155.
- [26] Haneef, M. A., Gnanadhas, M. E., & Karim, B. A. (2006). Consumer Buyer Behaviour of Two Wheelers in Tirunelveli City, Tamil Nadu. *Indian Journal of Marketing*, 36(4).

- [27] Hutchings, J. B. (2003). *Expectations and the Food Industry: The Impact of Color and Appearance*, Kluwer Academic Plenum Publishers: New York.
- [28] Kahn, M. E. (2007). Do greens drive hummers or hybrids? Environmental ideology as a determinant of consumer choice. *Journal of Environmental Economics and Management*, 54(2), 129–145.
- [29] Kelman, H. C. (1961). Processes of Opinion Change. *Public Opinion Quarterly*, 25(1), 57-78.
- [30] Kindra (1994). *Marketing Trends in Australasia: Essays and Case studies – Buying Decision Process*, Vol. 10.
- [31] Kotler, P. (2009). *Marketing management: A south Asian perspective*. Pearson Education ,India.
- [32] Kotta Thomas (1992). “A Cross level investigation of the effect of corporate social performance on customer identification and behaviour.
- [33] Kwahk, K. Y., & Ge, X. (2012). The Effects of Social Media on E-commerce: A Perspective of Social Impact Theory. 45th Hawaii International Conference on System Sciences, 1814-1823.
- [34] Lane, B., & Potter, S. (2007). The adoption of cleaner vehicles in the UK: exploring the consumer attitude–action gap. *Journal of cleaner production*, 15(11-12), 1085-1092.
- [35] Lazer, W. (1963). Life style concepts and marketing. *Toward scientific marketing*, 15(4), 130-139.
- [36] Leivadara, Stavroula & Nikolaou, Anastasia & D. Lekkas, Themistokles. (2008). Determination of organic compounds in bottled waters. *Food Chemistry*. 108. 277-286
- [37] Lichtenstein, S., & Slovic, P. (2006). *The construction of preference*. New York: Cambridge University Press.
- [38] McCarthy, M., de Boer, M., O'Reilly, S. and Cotter, L. (2003) Factors influencing intention to purchase beef in the Irish market, *Meat Science*, 65,1071- 1083.
- [39] Michaud, C. and Llerena, D. (2010), “Green consumer behavior: an experimental analysis of willingness to pay for remanufactured products”, *Business Strategy and the Environment*, Vol. 31 No. 1, pp. 26-37.
- [40] Mitchell, V.W. and Boustani, P. (1994), “A preliminary investigation into re- and post-purchase risk perception and reduction”, *European Journal of Marketing*, Vol. 28 No. 1, pp. 56-71.
- [41] Nandamuri, P. P., & Gowthami, C. (2012). Influence of consumer demographics on attitude towards branded products: An exploratory study on consumer durables in rural markets. *IUP Journal of Marketing Management*, 11(3), 48-63.
- [42] O'Donovan, P., & McCarthy, M. (2002). Irish consumer preference for organic meat. *British food journal*, 104(3/4/5), 353-370
- [43] Okioga, T. T. I. (2007). *Water quality and business aspects of sachet-vended water in Tamale, Ghana (Doctoral dissertation, Massachusetts Institute of Technology)*.
- [44] Peter, J.P. and Ryan, M.J. (1976), “An investigation of perceived risk at the brand level”, *Journal of Marketing Research*, Vol. 13 No. 2, pp. 184-188.
- [45] Radder, L. and Roux, R. (2005) Factors affecting food choice in relation to venison: A South African example, *Meat Science*, 71,583-589.
- [46] Rajput, N., Kesharwani, S., & Khanna, A. (2012). Consumers' attitude towards branded apparels: gender perspective. *International Journal of Marketing Studies*, 4(2), 111.
- [47] Rao, A.R. and Monroe, K.B. (1988), “The moderating effect of prior knowledge on cue utilization in product evaluations”, *Journal of Consumer Research*, Vol. 15 No. 2, pp. 253-264.
- [48] Ravichandran and Narayan (2004). "Factors determining the brand preference of 7-TVS with special reference to Thoothukudi district in Tamilnadu " *Indian Journal Of Marketing* vol.34 No: 24 pp.16-20.
- [49] Robins, G., Pattison, P., & Elliott, P. (2001). Network Models for Social Influence Processes. *Psychometrika*, 66(2), 161-190.
- [50] Scherer, K.R. (2005). What are emotions? And how can they be measured? *Social Science Information*, 44, 695-729.
- [51] Schiffman, L.G., & Kanuk, L.L. (2009). *Consumer Behaviour*. Pearson Prentice Hall, 9Ed
- [52] Sharot, T., De Martino, B., & Dolan, R.J. (2009). How choice reveals and shapes expected hedonic outcome. *Journal of Neuroscience*, 29, 3760-3765.
- [53] Thompson, G. D. and Kidwell, J. (1998) Explaining the Choice of Organic Produce: Cosmetic Defects, Prices, and Consumer Preferences, *American Journal of Agriculture Economic*, 80(May), 277-287.
- [54] Trusov, M., Bodapati, A. V., & Bucklin, R. E. (2010). Determining Influential Users in Internet Social Networks. *Journal of Marketing Research*, 47 (4), 643-658.
- [55] Tuorila, H., & Pangborn, R. M. (1988). Prediction of reported consumption of selected fat-containing foods. *Appetite*, 11(2), 81-95.
- [56] Turner, J. C. (1991). *Social Influence*. In Brooks/Cole Mapping Social Psychology Series. Maidenhead: Open University Press.