

CONSUMER DEMAND FOR BEVERAGES IN PAKISTAN

A. MANAN^{1*}, B. SHAHID¹, A. SULTAN², U.I. AHMED³

*E-mail: sirfmanan@yahoo.com

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ABSTRACT. This current research endeavors to study important factors having significant impact on consumer's choice of beverages in Punjab province of Pakistan. Beverages in two major categories of 'hot' and 'cold' have been studied to examine consumer consumption pattern. Data has been collected through interview from 80 respondents belonging to two major cities of Punjab, i.e. Lahore and Faisalabad, by incorporating stratified random sampling technique. These two cities of Punjab were selected because of big departmental stores opening like Metro Cash and Carry store, Al-Fateh and others. A pre tested and well-arranged questionnaire was used for data gathering from respondents. To estimate the outcome of factors affecting choices of consumers (demand function), multivariate analysis was incorporated. Results of this research showed that consumption pattern of cold beverages was affected significantly by consumer income, cold beverages prices,

city selected for survey and number of adolescents in a family, whereas factors which affected the consumption of hot beverages were food expenditure, living area, marital status, income, working persons in a family, family size. Due to availability of copious brands of beverages, consumption is escalating with the passage of time and consumers are eager to pay but owing to high rates they are not relishing full taste of beverages. So, local industry should produce cost effective and quality drinks to enhance usage.

Keywords: multivariate analysis; Metro Cash & Carry, AL-Fateh store; beverages.

INTRODUCTION

A beverage is a drink used explicitly for consumption of humans. This beverages industry in Pakistan

¹ Department of Agribusiness & Marketing, Muhammad Nawaz Shareef University of Agriculture, Multan, Pakistan

² School of Business & Economics, University of Management & Technology, Sialkot, Pakistan

³ Department of Agricultural & Resource Economics, Muhammad Nawaz Shareef University of Agriculture, Multan, Pakistan

has seen a prompt development during last couple of years. Juices, soft drinks, syrups, squashes and milk are products of this industry (Ahmad, 2003). Beverages are classifying as alcoholic, as well as non-alcoholic, and non-alcoholic is further categorized as cold and hot beverages. Changing priority of consumer increase in government directives and globalization has great influence on manufacturing of these beverages around the globe.

Beverage and processed food industry have enormous contribution in Pakistan industrial division. There is contribution of 16% of entire employment and 27% of whole production in manufacturing component (Shabir, 2004). More than 900 units were involved in food and beverages manufacturing. Industrial revolution has created huge impact on this industry and as a result of it, this industry has grown massively in Pakistan. Ahmad (2003) revealed that all over Pakistan almost 170 beverage industrial units are working at present. Beverages industrial production reached a level of \$2 billion during last years (Khan, 2009). People living in Pakistan consume non-alcoholic beverages to a great extent. Life style is changing rapidly; population is growing and shifting towards urban areas; this all becoming the cause of rapid growth of beverages industry. Among beverages, fruit juices, soft drinks, tea and coffee are most prevalent. Even most of the people prefer to have beverage along with meals.

Fruit juices are considered to be highly nutritious and are manufactured for their refreshing and energizing character because it delivers healthy stable nourishment and all vitamins and minerals that our body needs. That's why these juices are very much popular and expanding all over Pakistan especially in hotels and hospitals where there are effectively advertised and promoted (Maqbool, 2008). At this time there are 38 production units of fruit juices, squashes and syrups are operational in all over the country. Major manufacturing includes Mitchells Fruits, Nestle, and Benz. Primarily, fruits juices manufacturing units are being functioned in Lahore, Hattar and Loralai, Sargodha, Karachi, Hyderabad, Bahawalpur.

Major fruit juices market is in form of 250 ml packaging. Due to rise in raw material and packing cost, the prices of the fruit juices and other associated products have been escalated in local market. Due to the fruit juice as preferred choice around the globe shows the possibility to increase in the growth of this industrial sector, in addition to this fruit industry has rapidly flourished because of increased exports and exclusion of CED (custom and excise duty), which are locally manufactured on fruit juices (Maqbool, 2008).

People in Pakistan consume carbonated drink very much and reason of success of soft drinks is mainly associated with non-availability of alcoholic drinks (Anonymous, 2009). Hot beverages,

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like tea or coffee, are used massively in Pakistan and its market has grown promptly due to opening of different coffee shops, where many people approach for coffee consumption. Its consumption is much lesser than tea due to availability of inexpensive tea and lesser buying power (Anonymous, 2010).

Traditionally, tea is widely used in Pakistan and is served as guest and household servings. There are many brands of tea prevailing in the market. Tea is also imported and Pakistan is the 3rd major tea importer. Increase in *per capita* income and urbanization are the main causes of increase in tea consumption (Shabir, 2004). In Pakistan, *per capita* tea consumption is about one kg per annum. More than 140 tons of tea is being imported by Pakistan.

In order to satisfy wants regarding purchase and using products, consumer behavior assists in examining diverse activities and procedures that many people involved in. Environmental factors as season and weather and social factors like culture, income, and subculture and reference group influence the purchasing pattern. External factors, like changing life styles and consumption pattern, and psychological factors, as perception, self-benefits and learning also play a vital role in this aspect.

If we go through the existing literature related to the user's decision to choose and their priorities, it is revealed that many surveys are present, which describe the impact of

significant variables that affect the priorities of users for the different thing, such as for fresh meat (Becker, 2000) and for meat (Grunert *et al.*, 2004) and for the organic food (Shaharudin, 2010) etc. Some empirical surveys are present, which describing the user choice for the drinks, are rare and these includes Murtaza *et al.* (2004), Grimm *et al.* (2004), Khan (2009) etc. In this survey, it was planned to examine the significant factors, which affect the user's preferences in the two main cities for beverage industry

Literature review

Pollard *et al.* (2002) concluded that decision of food choice is related to intake of fruits as well as vegetables by the consumers. Some problems make this decision difficult, such as sensory appeal, habits similarities, social contact, media and ads, cost of products, access to the products, health issues and time constraint. Fruit and vegetables consumption at some specific occasion or time is affected by these issues intentionally or unintentionally. To some groups of respondents some techniques were used for the promotion of health considering the same values related to choices of food. This paper examined that for making choice related to food some education should be provided to the people to know about the effectivity of nutrients.

Shabir (2004) analyzed that half production of vegetables and fruits were destroyed in collecting, storing and preserving processes and only 4-5% fruits were imported by USA. To cope up with the damage of fruits, Pakistan is making a wide range of different juices. But it could not meet the standards of APHRIS

(Animal and Plant Health Regulation Inspection Services), so they could not be exported to USA. He also suggested that Pakistan can export these fruit juices to USA and save foreign investment following by good marketing. Geuens *et al.* (2003) concluded that people are too busy and have no time for going to shopping. They wanted all variety of products, low rates, good environment and good designs at one store.

In last few years, demand for juices in Pakistan has been elevated. Weather condition is a main foremost factor for this demand elevation. They are included in daily food that's why to achieve the demand level juices are imported. A lot of investment can be save by manufacturing them locally. For preserving juices, he suggested different methods like heating, chilling, radiation treatment as well as use of chemical preservers (Murtaza *et al.*, 2004).

Bonilla (2004) conducted a study that revealed the significance of the nutrition and health. Development and increase in income provide new chances of new products and their changes. Significant products features were their price and quality, but in the current scenario label and packing of the product also great impact on buying behavior of users. Study analysis revealed that consumer's decision to purchase product in case of fruit juice is effected by the label, packing and its 100% quality of fruit juice. Before launching new products in market the producers and marketing persons should recognize the user's behavior, priorities and their needs. A study related to consumers attitude for label and brand of juice was conducted. In that study it was shown that 68 out of 100% consumers use juices daily in morning. It was also revealed that 70 out of 100% react toward prices of product and for grocery buying use vouchers or

coupons and like readymade and convenience food.

Study showed that main factors which are the causes of usage of beverages among children. He surveyed through a questionnaire and sample was 560 children of ages between 8 to13, 49% girls and 51% boys were use as sample for the study. For factor analysis frequency distribution as well as multivariate logistic regression was used. Results suggested that taste of the cold drinks was the significant and strongest factor. Parents and friends usage habits of drinks, access to drinks at home as well as school and media advertisements were factors to consume drinks among children (Grimm *et al.*, 2004).

Flood *et al.* (2006) suggested that large quantity of beverages were used for the intake of energy. Caloric drinks were commonly and widely used in lunch and they are used for enhanced levels of energy consumption. This paper showed that choices of people for drinks in the food caused in increased level of drinks consumption. Large quantity of drinks was used in food that's why this level increased. Consumption of energy could be reduced by replacing the drinks of high calories with low calories.

A study examined the behavior of users toward the buying action of organic milk. To analyze the purchasing behavior and other characteristics, such as socio-economic factors regression and group analysis was used. Four groups of variables were examined. Organic milk buying behavior is tested by the respondents. Their small size of family as well as education affects the pattern of purchasing and income has not any effect on buying pattern. In this study researchers, marketers (Laitala *et al.*, 2008) examined the coffee heritability in Finland and its constant liking in a sample of twins. It was most likely hot drink as

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compared to any other drinks in Finland. Coffee had considerable impact on the health and welfare of the people. Study measured that intake of coffee was influenced by the exclusive environmental aspects and additive genetics. Heritability of adjusted use of coffee for sex and age measured in 1975 was 0.56 and in 1981 it was 0.45. Genetics attributes, which affected coffee usage, were constant while correlation of genetic factors was 0.83 in ladies and 0.84 in men. Correlation of environmental factors was measured as moderate, i.e. 0.36 and 0.45. Additive attributes had maximum impact in young adults. They measured that use of coffee is influenced by the both factors, i.e. exclusive environmental and additive genetics attributes and both elements play a significant role. Constant use of coffee in long term duration is influenced by the set of constant additive genetic attributes.

Study revealed that factors were analyzed which were the cause of increased in drinks industry progress and development. Beverages demand was increased by the ads, marketing, life patterns and technology. This study showed the fatness effects in children and effect of these drinks on the atmosphere (Maqbool, 2008).

A study was conducted with reference to a large variety of problems in relation to the use of soft beverages and examined the association between beverages usage, effect on health and weight. In Australia and NSN, this survey measured the level and nature of use of drinks. Young children like and use sweet drinks having sugar. The use of these sweet drinks on daily basis caused imbalance in energy and low level of nutrients in children. In Australia, milk and fruit juices are main and important food. Different factors, i.e. psycho-social, environmental and socio-cultural elements, has impact on the usage of

drinks. Results revealed that to decrease the complete beverage usage new research and innovation will assist to enhance the efficiency of present interventions. With all of these more plans related to environment are required to decrease this level of consumption. Plan should be about price, labels, packing, marketing, promotion and size of portion (Hector *et al.*, 2009).

Heuberger and Boyle (2009) conducted study to study the effect of people's health on the drinks usage. Drinks, such as carbonated beverages, had less nutrition and were the reason of fatness. Level of nutrition of the body is badly and negatively affected by these carbonated beverages. In this study revealed the risk of drinks usage choices among the respondents living in the rural areas. This survey was conducted by using many questionnaire and experienced interviewers. Of a sample of 760 respondents was used and sample was cross sectional. The result revealed that use of carbonated drinks and alcohol was associated to improved and enhanced level of calories and BMI (body mass index). The caloric derivation of carbonated beverages and alcohol usage were higher in younger individuals aging less than 35 increased their weight ($p < 0.5$). National research council suggested age for male and females is 34 - 53 for the carbonated drinks and alcohol usage.

Johns (2009) examined the Mexican retail industry and concluded that global economic downturn was greatly affected by the retail segment related to grocery. People's life style and standards had been enhanced by the convenience stores. Main factors of this enhanced and better life style was that consumers don't like to go to distant places for shopping and stores, which are available and open day and night. He stated that due to the bigger

markets and chain of stores sales were elevated in the last year. In the last few years, the soft drinks industry is continuously increasing and elevated to the standard level of \$2 billion. Its growth rate is increased up to 18% till 2009 (Khan, 2009).

METHODOLOGY

For this study, primary data was used. With the help of a well-arranged and complete questionnaire data collected. For the study, 80 consumers provided us with the data. Both are industrial cities that are why most of the people live in these cities are manufacturers and laborers. Due to this reason consumption function related to different income groups can be easily seen. Sample technique in this study was stratified sampling (equal allocation). From both of the cities, 40 consumers were selected. For the research purpose customers of big departmental stores (Al-Fateh, Metro Cash & Carry and other different stores) were used. Double log form of regression was used to calculate the effect of main factors that affect the usage of cold and hot drinks.

Conceptual framework

For analyzing the activities and procedure of people during finding, buying and consuming the good for their needs, user attitude and behavior can help. Many environmental elements, such as season or weather and social factors, such as culture, income, reference groups etc., affected the buying behavior of the user. Decision to buy things and user's choice can be influenced by the external features, like change in the using pattern of goods, health, status and life style. Ads and some psychological features, such as opinion, awareness and personal benefit, are also some characteristics. Literature work

related to consumers' priorities and selection showed that different studies are present, which describe the effect of significant variables and factors that affect user's priorities for the goods such as Becker (2000) study on fresh meat and Grunert *et al.* (2004), as well as Tendero and Bernabeu (2005) paper for cheese and Humayun and Hasnu (2009) study on liquid milk, Shaharudin (2010) survey for organic food. Simultaneously empirical survey, such as Murtaza *et al.* (2004), Shields *et al.* (2004), Grimm *et al.* (2004), Laitala *et al.* (2008), Singal (2009), Khan (2009), etc. examined that user's priorities for drinks are insufficient and limited. Regarding this literature, this aim of this study is to plan to recognize and measure the main factors which affect the user's preference for drinks in two cities of Pakistan, i.e. Lahore and Faisalabad.

Theoretical framework

For finding the results descriptive statistics will help to calculate the frequencies, as well as the percentage of the users. Average was calculated by this formula:

$$AM = \Sigma X / N \quad (a)$$

where, AM = arithmetic mean, N = total number of observation and ΣX = total sum of variables.

For percentage calculation formula was used:

$$P = F / N * 100 \quad (b)$$

Percentages were calculated for comparison. In this formula F = frequency and N = total number of observations.

Demand function for cold beverages

The relationship between dependent and independent variables is given as:

$$Y = f(X_i, D_j) \quad (1)$$

where, Y = Quantity consumed of cold beverages (Liter/month), X_i = Vector of quantitative variables $i = 3$ and D_j = Vector of qualitative variables $j = 1$

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In more specific form, equation 1 can be written as:

$$Y = \beta_0 X_1^{\beta_1} X_2^{\beta_2} X_3^{\beta_3} D_1^{\beta_4} e^{\mu} \quad (2)$$

The equation 2 can be further explained as:

$$Y = \beta_0 X_1^{\beta_1} X_2^{\beta_2} X_3^{\beta_3} D_1^{\beta_4} e^{\mu} \quad (3)$$

By taking natural log on both sides, equation 3 can be written as:

$$\ln Y = \beta_0 + \beta_1 \ln X_1 + \beta_2 \ln X_2 + \beta_3 \ln X_3 + \beta_4 D_1 + \mu \quad (4),$$

where, X_s is the independent variables in which, X_1 =Family income of household (Rs./month), X_2 = Price of cold beverages (Rs./liter) and X_3 = Number of youngsters in a family (No.); D_1 = City of survey (Dummy); $D_1=1$, if Lahore; $D_1=0$, if Faisalabad; β_0 is the intercept, β_s are the elasticities and μ is the random error; \ln = Natural log

Demand function of hot beverages

The relationship between dependent and independent variables is given as:

$$W = f(Z_i, D_j) \quad (5),$$

where, W = Quantity consumed of hot beverages (g/month), Z_i = Vector of quantitative variables $i = 5$, D_j = Vector of qualitative variables $j = 3$

In more specific form, equation 1 can be written as:

$$W = \beta_0 Z_1^{\beta_1} Z_2^{\beta_2} Z_3^{\beta_3} Z_4^{\beta_4} Z_5^{\beta_5} D_1^{\beta_6} D_2^{\beta_7} D_3^{\beta_8} e^{\mu} \quad (6)$$

The equation 2 can be further explained as:

$$W = \beta_0 Z_1^{\beta_1} Z_2^{\beta_2} Z_3^{\beta_3} Z_4^{\beta_4} Z_5^{\beta_5} D_1^{\beta_6} D_2^{\beta_7} D_3^{\beta_8} e^{\mu} \quad (7)$$

By taking natural log on both sides, equation 3 can be written as:

$$\ln W = \beta_0 + \beta_1 \ln Z_1 + \beta_2 \ln Z_2 + \beta_3 \ln Z_3 + \beta_4 \ln Z_4 + \beta_5 \ln Z_5 + \beta_6 D_1 + \beta_7 D_2 + \beta_8 D_3 + \mu \quad (8),$$

where, Z_s are the independent variables in which, Z_1 = Family income of household (Rs./month), Z_2 =Family size of respondents (No.), Z_3 = Food expenditure of respondents (Rs./month), Z_4 = Price of hot beverages (Rs./g), Z_5 =Working people in a family (No.); D_1 = City of survey (Dummy); $D_1=1$, if Lahore; $D_1=0$, if Faisalabad; D_2 = Marital status of the

consumer (Dummy); $D_2=1$, if married; $D_2=0$, if otherwise; D_3 = Living area (Dummy); $D_3=1$, if urban; $D_3=0$, if otherwise; β_0 is the intercept, β_s are the elasticities and μ is the random error; \ln = Natural log

EMPIRICAL RESULTS

This survey was conducted to analyze the effect of different factors that had an impact on the consumption pattern related to hot and cold drinks of the respondents. A number of 80 randomly chosen respondents of Lahore and Faisalabad help us to collect data. The calculation of demand factor is done through the regression and explained below.

Descriptive statistics (Demand function for cold beverages)

The association of independent variable (income of family, prices of drinks, number of young adults, survey city) with the dependent variable (use of cold drinks) was measured by using the double log of regression analysis, because this relationship showed scattered plot between dependent and independent variables.

Data of dependent variable and quantitative independent variable was measured by the descriptive statistics and this data is shown in *Table 1*.

In this case, undesirable condition is multicollinearity, where between independent variables correlation is strong. Tolerance is term used statistically for explaining the how much dependent and independent variables are linearly related.

Table 1 - Summary of statistical data used for model estimation

Variables	Minimum	Maximum	Mean	Standard deviation	Collinearity Statistics	
					tolerance	VIF
Quantity of cold beverages consumed	2	30	9.24	6.249	-	-
Family income of household	7000	600000	43887.50	68524.595	.982	1.018
Prices of cold beverages	45	60	50.04	9.743	.926	1.080
Number of youngsters	1	16	3.24	2.326	.866	1.154

Regression analysis (Demand function for cold beverages)

Adjusted R² for this case was 0.494, which showed that all independent variables mutually 49% variation in the dependent variable (use of cold beverages) keeping all other elements constant. This value also showed another aspect, i.e. 51% change in dependent variables that

was affected by some of the other variables; their effect could not be showed by this model used (*Table 2*). In this case, F-value is 20.94 ($p < 0.05$) was significant and indicated all the suitability of the model (*Table 2*). F-value suggests that independent variables are non-significant or significant factors for changing in dependent variables.

Table 2 - Estimated demand function for cold beverages

Variables	Coefficient	Standard error	T-value	Significance (P-value)
(Constant)	-3.371	.829	-4.066	0.000
Family income of household (Rs. per month)	0.497	.062	8.046	0.000**
Survey of city (Dummy)	0.228	.105	2.181	0.032*
Price of cold beverages	-0.152	.178	-.852	0.039*
Number of youngsters (No.)	0.234	.109	2.154	0.034*
R ²			0.520	
Adjusted R ²			0.494	
F-value			20.94	

(Source: Author's own estimations)

Note: ^{NS} Non-significant; ** Significant at 1% level; * Significant at 5% level

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The finding of above table showed that all variables has significant at 5% significance level, while only family income of household coefficient showed significant level at 1%. This variable showed positive value at 1 % significant level with elasticity coefficient value of 0.497, which depicts that 1% increase in the respondent's income cause and increase of 0.497% in the cold beverages consumption. It showed that high income group mainly used cold drinks. Cold drinks consumption is comparatively income elastic. Cities taken for research are used as dummy variable in demand function measurement of cold beverages. Findings showed that at 5% significant level variables values are highly positive. The people of Lahore using 0.228 times more cold drinks, as compared to the people of Faisalabad city, in case of food stuff price play an

important role. Usage of cold drinks will increase in the decline in the prices and *vice versa*. Price coefficient with T-value 0.852 has value 0.152 with negative sign, which means 1% price decrease will increase the use of cold drinks by 0.152%, keeping all the other aspects constant. Youngster use more cold beverages rather than the old people. Coefficient for youngsters depicts positive sign with 5% signiant level at T-value of 2.154 with elasticity value of 0.234. In our society, youngsters use more cold drinks.

Descriptive statistics (Demand function for hot beverages)

The association of dependent variable with the independent variable is analyzed by the regression technique of double log form due to the scattered plot that suggests such association.

Table 3 - Summary of statistical data used for model estimation

Variables	Minimum	Maximum	Mean	Standard deviation	Multicollinearity statistics	
					tolerance	VIF
Quantity of hot beverages consumed	90	5000	900.19	753.750	-	-
Family income of respondent	7000	600000	43887.50	68024.595	.837	1.195
Family size of respondent	3	12	6.47	2.381	.256	3.900
Food expenditures of respondent	1000	60000	16412.50	12825.700	.650	1.539
Prices of hot beverages	30.00	665.00	286.3125	167.32237	.252	3.964
Working people	1	7	2.95	1.500	.511	1.956

Dependent variable data, i.e. consumption/quantity purchased and quantitative independent variables, were explained by the descriptive statistics, such as Maximum, Minimum, Standard Deviation and Mean. This description is showed in *Table 3*.

Multicollinearity is an unwanted condition in which strong correlation between independent variables is existed. Tolerance of independent variables showed how much variables are related linearly with each other. VIF (variance inflation factor) and tolerance are opposite or reciprocal to each other in relation. If VIF increases, it cause increase in the variance of regression coefficient, which make this estimate unstable. VIF value more than 10 showed the issue of multicollinearity (Gujrati, 2008). This data has no issue of multicollinearity because its VIF has value less than 10 (*Table 3*).

Regression analysis (Demand function for hot beverages)

The value of 0.372 was adjusted R^2 showed that altogether all independent variables indicate the 37% change in dependent variables keeping all other elements constant. This value also depicted that remaining 63% variation in dependent variables was due to other variables, that could not be measured by this model (*Table 4*). F-value explains that altogether all independent variables are non-significant or significant features caused changes in dependent variables; 6.84 ($p < 0.05$) is the value of F, that is significant and it

indicated complete suitability of model (*Table 4*).

Table 4 depicted that income coefficient was fairly elastic and positive; its value is 0.148 with 0.037 standard error and 3.989 as T-value at 0% significance level. It showed use of hot beverage level will increase of 0.148% by the increase in the income level of 1%. Food expenses level was significant with T-value of -2.739 at 1% significance level and standard error for this case is 0.033. This finding take us to the conclusion that 0.089% decline in hot drinks consumption is result of 1% increase in the expenses. For this case, price coefficient (-0.053) has negative sign and showed highly insignificance level. This describes that price show insignificance for making choice for using the hot drinks. The marital status and working people's coefficients values are 0.290 and 0.217 and all the two variables had values at 1% significance level. The working people in family coefficient showed that 1% increase in its value 0.217% increase in the hot drinks consumption and marital status coefficient depicts that 1% increase in marital status value that married individual 0.290% used more hot beverages than unmarried persons. In the last, living area coefficient value is 0.438 and depicted the fact that people living in urban areas use less hot drinks than the people living in the areas except urban areas. This variable at 1% significance level has T-value of 2.457 and it furthermore confirmed the results that living areas impacts use of hot drinks.

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Table 4 - Estimated demand function for hot beverages

Variables	Coefficient	Standard error	T-value	Significance (P-value)
(Constant)	4.428	0.493	8.983	.000
Family income of household (Rs./month)	0.148	0.037	3.989	0.000*
City of survey	0.218	0.276	.790	0.432 ^{NS}
Family size of respondent (No.)	0.216	0.091	2.367	0.021*
Food expenditure of respondent	-0.089	0.033	-2.739	0.008*
Prices of hot beverages (Rs./g)	-0.053	0.043	1.227	0.224 ^{NS}
Working people in family (No.)	0.217	0.089	2.433	0.017*
Marital status of respondent (Dummy)	0.290	0.120	2.412	0.018*
Living area of respondent (Dummy)	0.438	0.178	2.457	0.016*
R ²			0.435	
Adjusted R ²			0.372	
F-value			6.84	

(Source: Author's own estimations)

Note: ^{NS} =Non-significant; * Significant at 1% level

CONCLUSIONS AND POLICY IMPLICATIONS

The result of this survey showed that use of cold drinks was affected by the survey city, number of young respondents, price of the drink, income of family while hot drinks usage was effected by the size of family, income of family, expenses of food, marital status, living area, and number of people working in the family. It was also witnessed that availability of branded drinks in the markets increased the use of drinks with every passing day. Due to this reason consumers with low income are discouraged to buy drinks because of the high prices. High prices and decreasing buying power were also related but it has serious effect on the user's real income that affected the

choice of decision to buy beverages. For hot beverages case, during last few years, due to the opening of new cafés and restaurants in Pakistan, coffee consumption is increased. But, in Pakistan, it is still used in higher and middle income individual. So, there is room to make it familiar with other people at low price and in local brands.

REFERENCES

- Ahmad, N. (2003).** Beverages industry: an analysis. <<http://www.jang.com.pk/thenews/investors/sept2003.htm>>. Accessed on 14-12-2010.
- Anonymous (2009).** Pakistan food and drink report Q1 2010. Data monitor. Business monitor international. Accessed on 30-11-2010, p. 60.
- Anonymous (2010).** Coffee in Pakistan. Country Report. Euro Monitor. <<http://www.Reportlinker.Com/>>

- P0207784/ Coffee-Pakistan.html >. Accessed on 21-11-2010.
- Becker, T. (2000).** Consumer perception of fresh meat quality: a framework for analysis. *British Food Journal*, 102(2), 158-176.
- Bonilla, T. (2004).** Analysis of consumer preference towards 100 % fruit juice packaging and labeling. *Department of Agricultural Economics and Agribusiness*, Costa Rica, pp. 1-104.
- Flood, J.E., Roe L.S. & Rolls, B.J. (2006).** The effect of increased beverages portion size on energy intake at a meal. *J. Am. Diet. Assoc.*, 106: 1984-1990.
- Geuens, M., Brengman, M. & Jegers, R.S. (2003).** Food retailing, now and in the future: a consumer perspective. *J. Retailing Consum. Serv.*, 10: 241-251.
- Grimm, G., Harnak, C.K. & Story, M. (2004).** Factors association with soft drinks consumption in school aged children. *J. Am. Diet. Assoc.*, 104: 144-149.
- Grunert, K.G., Bredahl, L. & Brunso, K. (2004).** Consumer perception of meat quality and implications for product development in the meat sector - a review. *Meat Science*, 66 (2): 259-272.
- Gujrati, D.N. (2008).** Basic econometrics. Ed. 5th, Mcgraw Hill, New York, USA.
- Hector, D., Rangen, A., Gill, T., Louie, J. & Flood, M.V. (2009).** Soft drinks, weight status and health: a review. <<http://uberbusy.com/wp-content/uploads/2010/03/Consumer Behaviour. pdf>>. Accessed on 11-8-2010.
- Heuberger, R. & O'Boyle, I. (2009).** Beverages consumption and its association with BMI and lifestyle factor in rural community participants. *J. Health. Prom.*, 7: 62-74.
- Humayun, K. & Hasnu, S. (2009).** An analysis of consumer values, needs and behavior for liquid milk in Hazara, Pakistan. *Proceedings 2nd CBRC, Lahore, Pakistan, Nov. 14, 2009.*
- Johns, B.V. (2009).** Mexico development reports. Market snap shot: the retail industry 2009. GAIN Report. *USDA Foreign Agriculture Service*. GAIN Report No. MX9307. Mexico.
- Khan, J.Q. (2009).** Pakistan beverages industry. *Balochistan Times*, 28-06-2009, Pakistan.
- Laitala, V.S., Kaprio, J. & Silventoinen, K. (2008).** Genetics of coffee consumption and its stability. *Addiction*, 103(12), 2054-2061.
- Maqbool, M.H. (2008).** Marketing report on fruit juices – murree brewery. *Marketing Report by International Islamic University Islamabad*, Pakistan, pp. 1-17.
- Murtaza, M.A., Huma, N., Javaid, J., Shabbir, M.A., Din, G.M.U. & Mahmood, S. (2004).** Studies on the stability of strawberry drink stored at different temperatures. *Int. J. Agri. Biol.*, 6(1): 58-60.
- Pollard, J., Kirkland, S.F. & Code, J.E. (2002).** Factors affecting consumer choice in relation to fruit and vegetables intake: a review. *Nutri. Rev.*, 15(2) 373-382.
- Shabir, I. (2004).** Industry in focus. <<http://www.jang.com.pk/thenews/investors/oct2004/if.htm>>. Accessed on 18-11-2011.
- Shaharudin, M.R. (2010).** Factors affecting purchase intention of organic food in Malaysia's Kedah State. *Cross-Cultural Communication*, 6 (2): 105-116.
- Singal, S. (2009).** A comparative study on consumption pattern of soft drinks and fruit juices. *Maharaja Agrasen Institute of Management Sciences (Marketing report)*, India, pp. 1-61.
- Tendero, A. & Bernabeu, R. (2005).** Preference structure for cheese consumers: a spanish case study. *British Food Journal*, 107(2): 60-73.