Chapter - VI

Expenditure Pattern of Sample Households

6.1 Introduction

Consumption expenditure pattern of an individual either directly or indirectly is a pointer of standard of living. Like this, the consumption expenditure pattern of a household indicates the general wellbeing of that particular household. It is basing on the per capita consumption expenditure on food and non-food that our country defined separate poverty line for rural and urban areas of the country. Accordingly, the poverty line states that those, who spends less than Rs. 32 in rural areas and less than Rs.47 in urban areas are termed as poor and person spending Rs. 32 and above in villages or rural areas of the country and Rs 47 and above in town or urban areas of the country are termed as non-poor as per the five-member expert committee on poverty constituted in June, 2012 under the chairmanship of Dr. C. Rangarajan which submitted its report on 30th June 2014. Thus, people were alienated as poor and non-poor on the basis of the per capita expenditure that one makes to access goods and services to complete his or her needs.

In this chapter, attempt has been made to explore the consumption expenditure pattern of the households of the Baksa district of Assam. The households in the study are categorized into APL and BPL on the basis of per capita consumption expenditure of the households after making necessary adjustment of the annual rate of inflation taking place in the Indian economy. The household consumption expenditure includes the expenditure on broad groups of food, non-food and semi-durable items. The food items include the expenditure made by the household on cereals and substitutes, pulses and pulse products, egg, fish & meat, vegetables, edible oil, milk and milk products, salt and spices, fruits and nuts, sugar and sugar products and beverages and refreshments. The non-food items consist of the expenditures made by the household on housing, education, electricity bill,

mobile or telephone bill, firewood, kerosene, petrol and diesel, health care, hygienic and toilet items, entertainment, cosmetic, transport, newspaper and periodical, social obligations and miscellaneous. The semi-durable items contain the expenditures made by the household on clothing, footwear, furniture, utensils, ornaments, vehicle or motorcycle or bicycle and audio-video that have long expected life-time of one year or more. In this chapter, the impact of income, household size, household debt and locational distance of the household on the household consumption expenditure pattern is studied by estimating consumption function.

6.2 Framework for Analysis

The consumption expenditure is the largest component of Gross Domestic Product (GDP)[1] accounting for 65% to 75% in different developed and developing countries. In India, aggregate consumption expenditure accounted for 69% of GDP in 2013-14. Consumption expenditure is one of the most important microeconomic variables used in macroeconomic analysis and is next to national income. To measure inequality in income and distribution of consumption expenditure for food, non-food and semi-durables among the sample households, the simple statistical tools like decile group analysis, Lorenz curve and Gini-coefficient are used.

The Keynesian Psychological law states that consumption is a positive function of income i.e. consumption increases with the increase in income. According to Keynes the relationship between income and consumption is based on a "fundamental psychological law" that "men are disposed, as a rule and on average, to increase their consumption as their income increases, but not as much as the increase in their income". In other words, consumption function refers to a functional relationship between income and consumptions $C = f(Y_d)$. Where, c refers to consumption and Y_d refers to disposable income. In this study, an attempt has been made to test the Keynes psychological law of consumption by estimating the consumption function on the basis of the data collected on income and expenditure. The consumption function of 600 sample households is estimated through the following linear regression model:

[1] GDP represents the monetary value of all goods and services produced within a geographical border of a nation over a specified period of time.

$C_e = \beta_0 + \beta_1 \gamma_d + u$

Where

C_e = Annual consumption expenditure per household

Y_d = Annual disposable income per household

u = Disturbance term

β_0 and β_1 are the parameters to be estimated.

The intercept β_0 is the positive constant which denotes the level of consumption at zero level of income. The consumption at this level is called autonomous consumption by the households supposed to be financed from past saving or borrowing when the disposable income of the household is zero. The co-efficient β_1 is the slope co-efficient and it represents the slope of consumption function. This indicates the Marginal Propensity to Consume (MPC)[2] which implies the change in consumption expenditure of the households due to change in households disposable income i.e. β_1 shows the income elasticity of consumption expenditure. The income elasticity of expenditure measures, the change in consumption expenditure as a result of change in disposable income. The Keynesian psychological law of consumption function states that as income increases consumption increases but increase in consumption is less than unity i.e., increase in consumption is less than the increase in income. In other words, the proportion of marginal income consumed ranges between 0 and 1 that is, 0<MPC<1. Therefore, according to this law the linear regression model $C_\iota = \beta_0 + \beta_1 \gamma_d + u$, the intercept β_0 and β_1 the slope co-efficient can be interpreted as $\beta_0 > 0$ and $0 < \beta_1 < 1$.

However, it is observed that there are different economic, social, cultural, religious and geographical factors that influence the consumption expenditure a household. Celinkutty Methew in his study, "Consumption Expenditure Pattern of Scheduled Caste Households of Kerala: A Study of Idduki District" has taken income, availability of infrastructure facilities, time, information, social barriers, household decision making and upbringing and globalisation for measuring the

[2] MPC implies the change in consumption expenditure of the households due to change in household's disposable income

impact on household consumption expenditure. In the present study, only the four factors have been considered and these are- household disposable income, households' size, household debt and locational distance of the household from the market or urban centres.

The impact household disposable income on consumption expenditure is assessed through income elasticity of expenditure. The impact of household size on consumption expenditure is measured through household size elasticity of expenditure. The impact household debt on consumption expenditure is assessed through household debt elasticity of expenditure. Similarly, the impact of locational distance of the household on consumption expenditure is measured through locational distance elasticity of expenditure.

In present study, income elasticity of a particular item of consumption expenditure indicates the percentage change in consumption of that item of expenditure a household as a result of one percent change in income. Positive income elasticity refers that as income goes up consumption expenditures on goods and services also goes up and negative income elasticity reveals that the change in expenditure is in the opposite direction to the change in income.

The household size elasticity of a particular item reveals the percentage change in the consumption expenditure of that item of expenditure of household as a result of one percent change in household size. The positive household size elasticity indicates that other things remaining constant as the size of the household increases the expenditure on goods and services also changes in the same direction and a negative household size shows that the change in expenditure is in opposite direction to the change in the size of the household.

Similarly, household debt elasticity of a particular item of consumption expenditure indicates the percentage change in the consumption of that item of expenditure of household as a result of one percent change in household debt. The household debt has positive or negative impact on household consumption expenditures. The former reveals that other things remaining constant, when household debt increases the consumption expenditure increases and the negative

impact states that when household debt increases the consumption expenditure of the household declines.

Like other factors, it is envisaged that the locational distance of the household from the market or urban centres has positive or negative impact on household consumption expenditures for different goods and services. The positive household locational distance elasticity reveals that other things remaining constant, when household distance from the urban centres or market increases it leads to the increase in the consumption expenditure and the negative elasticity states that although households are located far from the markets or urban centres the consumption expenditure of a household do not increases.

In this study, income elasticity and household size elasticity, household debt elasticity and locational distance elasticity of the household are calculated for different food, non-food and semi-durable or durable items of expenditure. The income elasticity and household size elasticity, household debt elasticity and locational distance elasticity for food, non-food and semi-durables are obtained from the multiple linear regression models as stated below:

$$E_i = \beta_0 + \beta_1 \gamma_d + \beta_2 N + \beta_3 L + \beta_4 D + u_i$$

Where

E_i = Annual household consumption expenditure on i^{th} item

γ_d = Annual household disposable income

N = Household size

L = Annual repayment of loan made by the household for borrowing

D = Distance of the household from market or urban centre (dummy)

u_i = Disturbance term with respect to the i^{th} item of expenditure

β_0, β_1, β_2, β_3 and β_4 etc. are the parameters to be estimated with respect to the i^{th} item of expenditure. The annual household disposable income, household size, household debt and locational distance of the household are the four independent

variables and each composite items of consumption expenditure of the household under the broad groups of food, non-food and durables are the dependent variable. As the consumption expenditure of the households are broadly classified into food, non-food and semi-durable so the multiple regression model are framed for each items of consumption.

That is, multiple regressions are used to analyse the income elasticity and household size elasticity, household debt elasticity and locational distance of the village from the market or urban centres on consumption expenditures of each items.

6.3 Consumption expenditure patterns of different income class

Table 6.1 reveals the consumption expenditure patterns of different income class. In the study area, many households receive low income with which they are not be able to make the payment for different types of food, non-food and semi-durable items for consumption. There is a general tendency on the part of lower income class to spend more than their income. The household in the rural area meet the consumption expenditure over their income by borrowing or by the sale of assets that they already possess. Observations of the table depicts that the average income of the lowest income class of below Rs. 5000 is Rs. 3594 and the average consumption expenditure is Rs. 3735 leading the consumption income ratio (APC) of 1.04. This shows a negative trend towards savings. Out of this total consumption expenditures 40.45% is spent on the consumption of food, 46.35% on the consumption of non-food items and 13.20% of the total consumption expenditure is spent on semi-durable items. The Average Per Capita Income (APCI)[3] of this income class is Rs.954 and per capita consumption is 947. In the Rs. 5000-1000 income class, the average income is Rs.6823, the average consumption expenditure per household is Rs.6043 resulting an income consumption ratio (APC) of 0.89.

[3] APCI is the average per capita income. APCI of a household is the total income of a household divided by the total number of population of the household or household size.

class is Rs. 1424 and the Average Per Capita Consumer Expenditure (APCE)[4] is Rs. 1254. In the income class of Rs. 10000-15000, the average income is 11585 and the Out of this average total expenditure 34.50% is spent on food, 52.75% is spent on non-food and 12.74% is spent on semi-durable items. Average per capita income of this average consumption expenditure is Rs. 9705 resulting an APC of 0.84. This consumption expenditure is shared by 28.51% on food, 57.87% on non-food and 13.62% on semi-durable items. The per capita income of this income class is Rs. 2498 and per capita consumption expenditure is Rs. 2090. Likewise, in the Rs. 15000-20000 income class, the average income is Rs.16866, the average consumption expenditure is Rs. 12497, leading to an APC of 0.74. Out of this expenditure the share of food items amounted to 26.32%, non-food items amounted to 59.26% and semi-durable items amounted to 14.42%. The per capita income and per capita consumption expenditure of this income class are Rs. 3454 and Rs. 2561.

Similarly, in the topmost income class of Rs. 45000 and above, the average income is Rs. 53348 and the average consumption expenditure is Rs. 30821, resulting an APC of 0.58. This consumption expenditure is shared for different types of food, non- food and semi-durable items. The share of food items accounted to 19.19%, non-food items accounted 69.95% and semi-durable items accounted 10.86%. The per capita income of this income class is Rs. 11081 and per capita consumption expenditure is Rs. 6490.

Thus, the share of expenditures on food items continue to decline as the level of income increases on the other hand, the share on non-food and semi-durable items increases. This exhibits that higher income class households spend more on the consumption of non-food items that confers high social status. Like this, table depicts that as the income class increases, the overall consumption income ratio and the per capita consumption expenditure declines which show a positive trend towards savings and capital formations.

[4] APCE is the average per capita consumer expenditure. APCE of a household is the total consumer expenditure divided by the total number of household consumers or household size.

Table 6.1 *Monthly average income and consumption expenditure of different income class*

Income Class	Average Income	Average Consumption Expenditure			Total	APC	APCI	APCE
		Food	Non-food	Semi-durable				
Below 5000	3594	1511	1731	493	3735	1.04	954	947
5000-10000	6823	2085	3188	770	6043	0.89	1424	1254
10000-15000	11585	2767	5616	1322	9705	0.84	2498	2090
15000-20000	16866	3289	7406	1802	12497	0.74	3454	2561
20000-25000	21964	3829	10506	2047	16382	0.74	4759	3457
25000-30000	25475	4021	12082	2527	18630	0.73	6329	4425
30000-35000	31820	4557	15322	3048	22927	0.72	6935	5038
35000-40000	37050	4884	16508	3346	24738	0.67	8218	5562
40000-45000	41572	5110	18327	3465	26902	0.65	7139	4526
45000 and above	53348	5916	21558	3347	30821	0.58	11081	6440

Source: Compiled from primary data

6.4 Level and composition of consumer expenditure

The composition of consumer expenditure of the sample households is categorized into food non-food and semi-durable or durable goods. Table 6.2 reveals the item-wise analysis of average annual consumption expenditure per households on food items. It is evident from the table that in case of food items households distributed their income to purchase ten types of food items and out of these the largest share of expenditure is on egg, fish and meat i.e., 21.24% of total food

consumption expenditure and is followed by vegetables (17.5%), beverage (12.58%), edible oil (10.09%), pulses (9.6%), sugar (7.33%), milk (6.26%), cereals (5.48%), salt and spices (5%) and the expenditures on fruits and nuts constituted the lowest in ranks which accounts just only (4.92%) of total food expenditure.

Table 6.2 *Item-wise annual household consumption expenditure on food*

Sl. No	Expenditure items	Average annual expenditure per household in Rs	Percentage share to total food expenditure	Rank
1	Cereals and substitutes	1965	5.48	VIII
2	Milk and milk products	2245	6.26	VII
3	Pulse and pulse products	3423	9.6	V
4	Edible oils	3617	10.09	IV
5	Vegetables	6275	17.5	II
6	Egg, fish & meat	7612	21.24	I
7	Salt and spices	1794	5	IX
8	Sugar and sugar products	2628	7.33	VI
9	Fruit and nuts	1765	4.92	X
10	Beverages and refreshments	4509	12.58	III
Total food expenditure		35833	100.00	

Source: Compiled from primary data

Table 6.3 shows the average annual consumption expenditure made by the households on different non-food items. The table reveals that households made expenditure for the consumption of fifteen different types of non-food items. Among the non-food items, the expenditure made on education stood highest in rank (27.3%) and is followed by entertainment (11.4%), household rent and maintenance (9.58%), petrol and diesel (9.52%), medical (7.31%), cosmetic item (5.16%), firewood (4.57%), transportation (3.92%), mobile (3.84%), social obligation (3.54%), others (7.53%), hygienic and toilet items (2.59%), electricity bill (1.87%), newspaper and periodicals (0.98%), kerosene (0.94%). It is evident from the table

that among the non-food items the consumption expenditure on education is the highest in rank and the expenditure on kerosene is the lowest.

Table 6.3 *Item-wise annual household consumption expenditure on non-food*

Sl. No	Expenditure items	Average annual expenditure per household in Rs	Percentage share to total food expenditure	Rank
1	Housing (rent/maintenance)	8606	9.58	III
2	Education	24512	27.3	I
3	Electricity bill	1680	1.87	XIII
4	Mobile/telephone bill	3448	3.84	X
5	Firewood	4109	4.57	VIII
6	Kerosene	841	0.94	XV
7	Petrol and diesel	8558	9.52	IV
8	Healthcare	6566	7.31	VI
9	Hygienic and toilet items	2329	2.59	XII
10	Entertainment (pan, tobacco, intoxicant and recreations)	10221	11.4	II
11	Cosmetic items	4638	5.16	VII
12	Transportation	3527	3.92	IX
13	Newspaper & periodical	882	0.98	XIV
14	Social obligations	3177	3.54	XI
15	Miscellaneous goods and services	6768	7.53	V
Total non-food expenditure		89862	100.00	

Source: Compiled from primary data

Table 6.4 represents the consumption expenditure pattern made on semi-durable goods. The expenditures on semi-durables are made on nine varieties. Among the semi-durable items, the expenditure on clothing constituted the highest in rank (49.09%) and is followed by ornament (15.67%), footwear (12.69%), vehicle/motorcycle/bicycle (6.77%), furniture (7.91%), utensils (6.11%) and audio-video accounts just only (1.76%) which is lowest in rank.

Table 6.4 *Item-wise annual household consumption expenditure on semi-durable goods*

Sl. No	Expenditure items	Average annual expenditure per household in Rs.	Percentage share to total food expenditure	Rank
1	Clothing	9229	49.09	I
2	Footwear	2386	12.69	III
3	Furniture	1488	7.91	IV
4	Utensils	1148	6.11	VI
5	Ornaments	2944	15.67	II
6	Vehicle/motorcycle/bicycle	1274	6.77	V
7	Audio-videos	331	1.76	VII
Total semi-durable expenditure		18800	100.00	

Source: Compiled from primary data

6.5 Analysis of consumption expenditure by types of sample households

Tables 6.5(A), 6.5(B) and 6.5 (C) reveals how the economic categories of households i.e., APL and BPL distribute their disposable income for the consumption of different types of food, non-food and semi-durables items. The tables reflect the differences in the pattern of consumption expenditure among the types of households.

(A) The consumption expenditure pattern of food items

The expenditure on food items includes the expenditure made on buying food items which satisfy hunger and thirst of the households. This are-

i) Cereals and cereals substitutes

Expenditures on cereals and substitutes include the expenditures on rice, chira, muri, wheat/atta, maida, bajra, maize, suji, bread, jowar, barley and other cereals. There are differences in the consumption of cereals among the sample households. It is observed in the table that APL households spent Rs.166 (4.61%) of mean total food expenditure on cereals. While, the household belonging to BPL category spent Rs. 158 (9.27%) of their total mean monthly expenditure on cereals

and cereals substitutes. For the whole sample households irrespective of the economic categories, the expenditure on cereals and substitutes constituted Rs. 324 (6.12%) to total food expenditures.

ii) Milk and milk products

This includes milk, baby food, curd, ghee, butter, ice-cream and other milk products. The milk is important item among the different food items. The APL households spent Rs. 268 (7.45%) of their mean food expenditure on the consumption of milk and BPL households spent only Rs. 18 (1.06%) of their total food expenditure on milk. Overall, irrespective of economic category it shared Rs. 286 (5.4%) to the mean total food expenditure.

iii) Pulse and pulse products

It includes cereals substitutes, arhar, moong, masur, peas, khesari, besan, and other pulse products. The APL households spent Rs. 334 (9.29%) of the mean food expenditure on the consumption of pulse and pulse products and BPL households spent Rs. 183 (10.75%) of the mean total food expenditure on pulse and pulse products. As a whole, it accounted Rs. 517 (9.75%) to the mean total expenditures.

iv) Edible oils

The edible oils include mustard oil, groundnut oil, coconut oil, refined oil and others edible oils. The share of edible oils in the total food consumption expenditure of APL households constituted Rs. 340 (9.45%) to the mean total expenditure and it accounted Rs. 221 (12.97%) in the case of BPL households. For the whole sample households, it accounted Rs. 561 (10.58%) to mean total food expenditure.

v) Vegetables

Household spends a considerable amount of their income for the consumption of vegetables. The APL households spent Rs.617 (17.15%) of total food expenditure on vegetables and BPL households spent Rs. 326 (19.14%) of total food expenditure on consumption of vegetables and as whole irrespective of economic categories it is found that expenditure on vegetables was Rs.943 (17.8%) to mean total expenditures on food.

vi) Egg, fish and meat

The egg, fish and meat is one of the most favoured consumption items. The share of egg, fish and meat in total consumption expenditure among the APL households constituted Rs.747 (20.77%) and for BPL households it accounts to Rs. 398 (23.37%) to the respective mean total food expenditure. The share of egg, fish and meat for overall categories of households stood at Rs. 1145 (21.61%) to mean total expenditure of food.

vii) Salt and spices

The salt and spices is one of the most important consumption items. The share of consumption expenditure on salt and spices for APL accounted Rs. 170 (4.73%) and for BPL the expenditure on the same item stood at Rs. 106 (6.22%) to the respective mean total expenditure on food items. Whereas, the overall share of expenditure on salt and spices accounted Rs. 276 (5.21%) to the mean expenditure.

viii) Sugar and sugar products

The share of expenditure on sugar and sugar products accounted Rs. 259 (7.2%) in case of APL households and Rs. 135 (7.93%) in case of BPL households to the mean expenditure and irrespective of economic category, it shares to the mean expenditures accounted Rs.394 (7.43%).

ix) Fruits and nuts

It includes the expenditure made by the households on fresh and dry fruits. The consumption expenditure on fruits and nuts for APL accounted Rs. 211 (5.87%) whereas for BPL it accounted only Rs. 14 (0.84%) to the mean total food expenditures. While, for the whole economic categories of households, its share to the mean total food expenditures accounted Rs. 225 (4.24%).

x) Beverages and refreshments

It includes tea, coffee, mineral water, cold beverages, fruit juice and snacks and other beverages like cocoa, chocolates etc. The share of consumption expenditure on beverages and refreshments of APL households constituted Rs. 485 (13.48%), while the same for BPL households accounted Rs.144 (8.45%) to the mean total food expenditure of respective economic categories. Whereas, its share to

the mean total expenditures for all economic categories of households accounted Rs. 629 which constituted 11.86% to the mean total expenditure.

(B) The consumption expenditure pattern of non-food items

The expenditures on non-food items include the expenditure made by the households which supports them towards smoothly conducting their lives. This are-

i) Housing

Under this head, consumption expenditure of the households includes expenditure incurred on rents, repairing of rooms, gardening, fencing and other labour costs incurred on maintaining cleanliness of the house time to time. It is observed that different categories of household spent different amount of their disposable income on housing. From the table, it has been brought to notice that out of the total average monthly non-food consumption expenditure of Rs, 10044, the average monthly consumption expenditures on housing of APL households is Rs. 953 which constituted 9.48% to total expenditure. On the other hand, in case of BPL households, the total average monthly expenditures on non-food is Rs. 2139 and the average monthly consumption expenditure on housing is Rs.225. This accounted 10.5% to the total average monthly consumption expenditure. The total average monthly expenditure irrespective of economic category is found Rs. 1178 which shared 9.66% to the mean total non-food expenditure.

ii) Education

The consumption expenditure on education includes the expenditure incurred on schooling of children i.e., admission fee in school, college and universities, monthly or yearly tuition fee, expenditure incurred on purchasing books, pen, pencils, uniforms and other expenditures incurred in the field education of the members of the family as a whole. From the table, it is observed that among the different heads of expenditure on non-food, the expenditure on education is one of the dominating. The sharp differences of expenditure on education have also been come to notice among the two categories of households. Out of the total average monthly expenditure, on education APL households spend Rs.2835 per month per household and that constituted 28.2% to total non-food consumption expenditure. Whereas, on an average BPL category of households spent Rs.385 per household in

a month and this showed a share of 18% to total average household monthly consumption expenditure on non-food. Overall, the sample household spent Rs. 3220 per month per household on education and that constituted 26.4% to the mean total expenditure.

iii) Electricity bill

This refers to the consumption expenditure incurred on the payment for lighting. It is observed from the table that by economic category, out of the total mean total expenditure on non-food, the APL households spent Rs. 164 (1.63%) to total non-food expenditure and BPL households spent Rs.89 which represented a share of 4.16% to the total average monthly non-food expenditure. For the whole economic categories of households, it was Rs. 253 (2.08%) to total non-food expenditures.

iv) Mobile/ telephone bill

Mobile/telephone is an important media of communication of modern days. The consumption expenditure on mobile includes the expenditure on payments for mobile/telephone bill, repairing, top-up value, internet charges of all members of households. It is observed from the table that the average monthly consumption expenditure on mobile/telephone for APL household is Rs. 361 that constituted 3.85% of total non-food expenditure as to economic category, while on average BPL section of the households spent Rs.133 which accounts 6.22% to total average monthly non-food consumption expenditure. The total monthly consumption expenditure for whole categories of households exhibited Rs. 494 showing a share of 4.06% to the total non-food expenditure for all economic-categories of households.

v) Firewood

It includes the consumption expenditure incurred on preparing food by using firewood and liquid petroleum gas (LPG). It is noticed from the study that a significant portion of LPG connection is availed in the study area from the Pradhan Mantri Ujjalla Yojana (PMUY)[5]**.** The average monthly consumption expenditure on

[5] PMUY is the Pradhan Mantri Ujjalla Yojana. Pradhan Mantri Ujjalla Yojana was launched by the Prime Minister of India Sjt.Narendra Modi to distribute LPG connections to women of BPL on 1st May 2016.

firewood of APL household is Rs.415 that amounts to 4.13% of total average non-food expenditure and in case of BPL, it is Rs. 187 that shows 8.74% to total average monthly household non-food consumption expenditures. While for the whole economic category, the average households' expenditure on firewood is Rs. 602, which represented a share of 4.94% to the mean total non-food expenditure.

vi) Kerosene

It is an important items used for the purpose of lighting in the households. It is brought to notice from the table that average monthly consumption expenditure on Kerosene of APL household is Rs. 70 that amounts to 0.7% to total non-food consumption expenditure. Whereas, the mean expenditure of BPL households is Rs.71 that showed a share of 3.32% to the total average monthly non-food expenditure. The sample households as a whole, irrespective of economic category spent Rs.141 i.e. 1.16% to the mean total non-food expenditure.

vii) Petrol and diesel

It includes the consumption expenditure incurred in driving or riding vehicle or motorcycle. It is evident from the table that average monthly consumption expenditure on petrol/diesel of APL category of household is Rs.1048 per month which constituted 10.4% to total non-food consumption expenditure. Whereas, BPL section of household spends Rs.13 per month, which constituted 0.61% to the total non-food consumption expenditure. Overall, the sample households irrespective of economic categories spend Rs. 1061that exhibits 8.71% to the mean consumption expenditure.

viii) Healthcare

The consumption expenditure on healthcare includes the expenditure incurred by the household while admitting the patient in medical or nursing home and the payments made for medicines and clinical tests. It is observed from the table that average monthly consumption expenditure per household on healthcare, in case of APL section of household is Rs.678 that constituted 6.75%, while in case of BPL section of household, it is Rs. 273 that showed 12.8% to total non-food expenditure. The total consumption expenditure for all categories of household on healthcare is Rs.951 that shared 7.81% to the mean expenditure of all sections of households.

ix) Hygienic and toilet items

Hygienic is a set of personal practices such as hand washing, teeth brushing, bathing and cutting nails, hairs etc. That contribute to good health and toilet items are the use of tools and actions to manage waste, like effective drainage and other mechanisms. It is evident from the table that a considerable amount of consumption expenditure is made on hygienic and toilet items. The average monthly consumption expenditure of APL households on this item is Rs.240 which amounts to 2.39% to total non-food consumption expenditure. While the BPL category spends Rs. 97 which shared 4.53% to the mean expenditure. Overall, the sample households spent Rs. 337 of the mean total expenditure and this shared 2.77% to the mean total expenditure.

x) Entertainments

The consumption expenditure on entertainment includes the expenditure made on viewing cinema or film, T.V. recharge, pan and tobacco and expenditures on intoxicants like rice beer, betelvine, bidi/cigarettes and other alcoholic drinks as well as expenditure incurred on journey or recreations are also included under this head. The study reveals that, entertainment expenditure is one of the most dominant in the average monthly consumption expenditure of the household. The average monthly consumption expenditure on entertainment of APL section of household is Rs.1163 that amounted to 11.6% to total non-food expenditure. Like this, the average monthly consumption expenditure on entertainment of BPL household is Rs.200 and this shared 9.35% of the mean total expenditure. The sample households irrespective of economic category on an average spent Rs.1363 that constituted 11.2% to the mean total expenditure. Such an increase in the entertainment expenditure is due to the developments of liquor consumption habits among adult male members of the households. Moreover, during festivals occasions a substantial amount is spent on liquor and recreational activities.

xi) Cosmetic items

The consumption expenditure on cosmetic items includes the expenditures on beauty soap, detergent powder, beauty creams, hair oils, message oil/body oils and other expenditures incurred on parlouring. The average monthly consumption

expenditure on cosmetics of APL section of household is Rs.478 which amount to 4.76% to total non-food expenditure. Likewise, the average monthly consumption expenditure on cosmetics of BPL household is Rs.195 and this shared 9.12% of the mean total expenditure. The entire households' average monthly expenditure on cosmetic item is Rs. 673 that constituted 5.52% to total non-food consumption expenditure.

xii) Transportation

It includes the expenditures incurred by the individuals or households while they go for marketing. The average per household consumption expenditure on transportation in case of APL section of household is Rs. 361 that amounts to 3.59% to total non-food expenditure whereas in case of BPL households it is Rs.153 that shows 7.15% to the mean total expenditure. The entire households' average monthly expenditure on transportation is Rs. 514 a month that constituted 4.22% to the mean total non-food consumption expenditure.

xiii) Newspaper and periodicals

It includes the expenditures incurred on purchasing newspaper and other daily/weekly/monthly subscription fee for journal, magazine or other periodicals issues. The mean expenditure of APL household stood at Rs.108 that constituted 1.08% to total non-food expenditure while for the BPL household it was just only Rs. 2 that constituted only 0.09% to the mean total expenditure on non-food. The entire households' average monthly expenditure on this item was Rs. 110 which constituted 0.9% to total non-food consumption expenditure of the entire households.

xiv) Social obligations

This includes the expenditure incurred on social and religious functions and donations or gifts in marriage ceremonies, seasonal festivals etc. The average monthly expenditure per households on social obligations in case of APL households is Rs. 389, that constituted 3.87% and in case of BPL households it is Rs. 6 that constituted 0.28% to the mean total non-food expenditures. The mean expenditure for entire sample households is Rs. 395 that is 3.24% to the respective mean total expenditure of non-food.

xv) Miscellaneous

This includes the expenditures on all other items which are not included in the list above. The average monthly expenditure per households on miscellaneous of APL household is Rs.781 and for BPL households it is Rs. 110, constituting 7.78% and 5.14% respectively to the mean total non-food expenditures. For entire sample households it was Rs. 891 that shared 7.31% to the mean total expenditure.

(C) The consumption expenditure pattern of semi-durable

The durable item includes the expenditures made on dresses, footwear, furniture, utensils, ornaments, vehicles, motorcycles, bicycle audio-video etc.

i) Clothing

This includes the expenditure on gamcha, dokhona, shirt, pant, long pant, blouses, bed covers/bed sheet and other traditional dresses as well as other cloths for wearing. Among the expenditures on different semi-durable items, the expenditure on clothing is one of the most dominating. The average monthly consumption expenditure on clothing of APL categories of household is Rs. 955 and this constituted 47.2% whereas, the BPL category of household spent Rs. 380 and it represented 62.5% to total to total average monthly consumption expenditure on semi-durable. The entire households' average monthly expenditure on clothing was Rs.1335 that constituted 50.7% to the mean total consumption expenditure on semi-durables.

ii) Footwear

It includes the expenditures on scandal, shoes and shocks etc. The table indicates that the mean expenditure of the APL household is Rs.250 that constituted 12.3% to the mean total semi-durable consumption expenditures. Likewise, the average monthly consumption expenditure on footwear of BPL household is Rs.91 and it presented a share of 15% to the mean total expenditure. For entire households it was Rs.296. This showed a share of 12.7% to the mean total semi-durable expenditure.

iii) Furniture

The consumption expenditure on furniture is the expenditures made on buying or preparing chair, tables, fan, bed, almari/godrej etc. The study showed that APL household spends Rs. 160, that represented 7.9% per month per household and BPL household spent Rs. 50 represented 8.22% to the mean total expenditure. On the other hand, irrespective of economic category, the average monthly consumption expenditure on furniture is found Rs. 341 and that constituted 13% to the mean total semi-durable expenditure

iv) Utensils

The consumption expenditures on utensils refers to the expenditure incurred on kitchen instruments like glass, cooker, water pot, vegetables baskets, and some specific non-kitchen instruments like knife, spade etc. The combined average monthly consumption expenditure of all households under this head is Rs.210 which constituted 7.98% to total semi-durable expenditures. Further, the socio-economic classification among the sample households exhibited that the monthly average expenditure of APL households is Rs. 114 and that of BPL household is Rs. 56. This represented 5.63% and 9.22% to the respective to the mean total expenditure.

v) Ornaments

The consumption expenditure on ornaments includes the expenditures on gold, silver, bronze in most cases used by the women to wear in their hands, ears, nose and fingers. The table indicates that a major portion of consumption expenditure is made on ornaments. The average monthly consumption expenditure for all socio-economic categories per households on ornaments is Rs. 375 that amounts to 14.2% to the mean total semi-durable consumption expenditures. The economic category-wise analysis of expenditure on the item shows that the average monthly expenditure of APL household is Rs.351 and that of BPL is Rs. 24 representing 17.3% and 3.95% to respective mean total expenditure.

vi) Vehicle or motorcycle or bicycle

This includes the expenditure on maintenance of vehicles, motorcycle and bi-cycle. The average monthly consumption expenditure per household on this item irrespective of the economic categories of sample households is Rs. 158 that constituted 5.99% to total semi-durable expenditure. The economic category-wise

analysis of expenditure reveals that the APL household spent Rs. 157 that shared 7.75% to mean total expenditure and that of BPL households, it was only Rs. 1 and that constituted 0.16% to the respective mean total expenditure.

vii) Audio-videos

Under this, consumption expenditure includes the expenditure incurred on purchase of memory card, tape, radio, Cds, videos downloading etc. The average monthly consumption expenditure per household incurred on this item is Rs.38 and Rs 6 per household respectively for APL and BPL categories of households and that constituted 1.88% and 0.99% to the respective mean total semi-durable expenditure. As a whole, the households spent Rs. 44 that constituted 1.76% to the mean total semi-durable expenditure.

Overall, it is found that the composition of household consumption expenditure of the sample households consists of ten food items, fifteen non-food items and seven semi-durable items. The average monthly consumption expenditure of APL household is Rs. 15667 which is less than the average monthly disposable income of Rs. 22112. Thus, leaving a surplus of Rs. 6445 per month per household. Likewise, the average monthly household consumption expenditure of BPL household is Rs. 4450 which is less than the average monthly disposable income of Rs. 4686 which leave a surplus of Rs.236 per household per month.

It is observed that out of the total consumption expenditures of Rs. 15667 the household above poverty line (APL) spent 22.96% of monthly expenditure on the consumption of food items, 64.11% on the consumption of non-food items and 12.93% on the consumption of semi-durable items. On the other hand, out of the total consumption expenditure of Rs. 4450 the household of below poverty line (BPL) spent 38.27% of monthly expenditure on consumption of food items, 48.07% on the consumption of non-food and 13.67% on the consumption of semi-durable items. This ensures the applicability of the Engel Law in the consumption expenditure patterns of households of Baksa district. The Engel law states that household with higher income spends more on non-food whereas the household with the low income spends more on food items.

Table-6.5(A) *Monthly consumption expenditure on food as to the economic category of the sample households*

Items of expenditure	**Types of sample households**				Average total item-wise monthly consumption expenditure(APL+ BPL)	Percentage share to total food expenditure
	APL households (406 households)		BPL households (194 households)			
	Average monthly consumption expenditure	Percentage (%)	Average monthly consumption expenditure	Percentage (%)		
Cereals and cereal substitutes	166	4.61	158	9.27	324	6.12
Milk and Milk Products	268	7.45	18	1.06	286	5.4
Pulse and Pulse Products	334	9.28	183	10.75	517	9.75
Edible oil	340	9.45	221	12.97	561	10.58
Vegetables	617	17.15	326	19.14	943	17.8
Egg, fish and meat	747	20.77	398	23.37	1145	21.61
Salt and spices	170	4.73	106	6.22	276	5.21
Sugar and sugar products	259	7.2	135	7.93	394	7.43
Fruit and nuts	211	5.87	14	0.84	225	4.24
Beverages and refreshments	485	13.48	144	8.45	629	11.86
Total average monthly food consumption expenditure	3598	100.00	1703	100.00	5300	100.00

Source: Compiled from primary data

Table 6.5(B) *Monthly consumption expenditure on non-food as to the economic category of the sample households*

Items of expenditure	**Types of sample households**				Average total consumption expenditure (Rs)Item-wise(APL+BPL)	Percentage share to total non-food expenditure
	APL households(406)		BPL households(194)			
	Average monthly consumption expenditure	Percentage (%)	Average monthly consumption expenditure	Percentage (%)		
Housing (rent/maintenance)	953	9.48	225	10.5	1178	9.66
Education	2835	28.2	385	18	3220	26.4
Electricity bill	164	1.63	89	4.16	253	2.08
Mobile/telephone bill	361	3.59	133	6.22	494	4.06
Firewood	415	4.13	187	8.74	602	4.94
Kerosene	70	0.7	71	3.32	141	1.16
Petrol and diesel	1048	10.4	13	0.61	1061	8.71
Health care	678	6.75	273	12.8	951	7.81
Hygienic and toilet items	240	2.39	97	4.53	337	2.77
Entertainment (pan, tobacco, intoxicant and recreations)	1163	11.6	200	9.35	1363	11.2
Cosmetic items	478	4.76	195	9.12	673	5.52
Transportation	361	3.59	153	7.15	514	4.22
Newspaper & periodicals	108	1.08	2	0.09	110	0.9
Social obligations	389	3.87	6	0.28	395	3.24
Miscellaneous	781	7.78	110	5.14	891	7.31
Total average monthly non-food expenditure	10044	100.00	2139	100.00	12182	100.00

Source: Compiled from primary data

Table 6.5(C) *Monthly consumption expenditure on semi-durable goods as to economic category of sample households*

Items of expenditure	Types of sample households				Total consumption expenditure (Rs)Item-wise(APL+BPL)	Percentage share to total semi-durable expenditure
	APL households(406)		BPL households(194)			
	Average monthly consumption expenditure	Percentage (%)	Average monthly consumption expenditure	Percentage (%)		
Clothing	955	47.2	380	62.5	1335	50.7
Footwear	250	12.3	91	15	341	13
Furniture	160	7.9	50	8.22	210	7.98
Utensils	114	5.63	56	9.22	170	6.46
Ornaments	351	17.3	24	3.94	375	14.2
Vehicle/motorcycle/bicycle	157	7.75	10	1.64	158	5.99
Audio-videos	38	1.88	6	0.96	44	1.67
Total average monthly consumption expenditure on semi-durable	2025	100.00	608	100.00	2633	100.00

Source: Compiled from primary data

6.6 Distribution of household according to monthly consumption expenditure range

Table 6.6 distributes the number of sample households on the basis of monthly consumption expenditure range. The collected data on consumption expenditure on food, non-food and durables have been arranged into frequency distribution. The monthly consumption expenditure has been arranged ranging from below Rs. 5000, to Rs.35000 and above. The table indicates that 26% of households are in the monthly consumption expenditure range of below Rs, 5000 and that shared 8.04% to total households consumption expenditure, 30.2% of the households monthly consumption expenditure are in the range of 5000-10000 that shared 18.13% to total households consumption expenditure. 13% of the households are in the expenditure range of 10000-15000 and that shared 13.43% to total household consumption expenditure. 10.3% of the households' expenditure is in the range of 15000-20000 and that shared 14.9% of total consumption expenditure. 9.83% of the household's expenditure is in the range of 20000-25000 and the expenditure under this range shared 18.3% to total consumption expenditure. 5.5% of the households are in the range of 25000-30000 which shared 12.5% of the total consumption expenditure. 3.5% of the household's expenditure is in the range of 30000-35000 and the expenditure of this range shared 9.54% to total consumption expenditure. 1.67% of the household's monthly consumption expenditure is in the range of 35000 and above and the expenditure under this range shared 6.16% to total consumption expenditure.

. It is evident from the distribution of households on the basis of monthly consumption expenditure that 56.2% of the sample households are in the expenditure range of below Rs. 10000. It is also noticed that the number of households goes on declining as the range of monthly consumption expenditure goes on increasing i.e., the frequency distribution is positively skewed as many households are in the lower range of consumption expenditure and lesser number of households are in the higher range of monthly consumption expenditure.

As frequency distribution is skewed to the right, the value of the mean is maximum, the value of mode is the least and the median or value of median lies

between the mean and the mode, i.e. Mode<Median<Mean. The value of mean, median and mode calculated from the monthly consumption expenditure of the sample households are Rs.12, 040, Rs.8,800 and Rs.3,333 Thus, it is observed that distribution on monthly consumption expenditure on food, non-food and durable goods among the sample are asymmetrical to the right. The highest value of the monthly household consumption expenditure among the 600 sample households is Rs.45548 and the lowest is Rs. 1833. This shows the presence of high inequality in the distribution of consumption expenditure among the sample households

Table 6.6 *Distribution of monthly consumption expenditure of sample households*

Consumption expenditure range(monthly)	Number of households	Total Consumption expenditure	Percentage to total households	Percentage to total households consumption expenditures
Below 5000	156	580973	26	8.04
5000-10000	181	1309469	30.2	18.13
10000-15000	78	969988	13	13.43
15000-20000	62	1076267	10.3	14.9
20000-25000	59	1321436	9.83	18.3
25000-30000	33	903428	5.5	12.5
30000-35000	21	689488	3.5	9.54
35000 and above	10	372920	1.67	5.16
Total	600	7223970	100.00	100.00

Source: Compiled from primary data

6.7 Monthly consumption expenditure of households as to the deciles groups

To understand the prevalence of inequality in the distribution of consumption expenditure among the sample households deciles group analysis are carried out. For this, the households' monthly consumption expenditure data are arranged into

ascending order and then divided into ten equal classes each containing 10% of the sample households. Table 6.7 reveals that top 10% of the household accounts for 25.8% of total consumption expenditure while, the bottom 10% of the households accounts only 2.47% of total consumption expenditure. In this way, the top 20% of sample households' show 44.7% of the total consumption expenditure on the other hand, bottom 20% of the household share only 5.73% of total monthly consumption expenditure. Similarly, the top 30% of the households spends 59.4% and bottom 30% spends meager 9.76% of total monthly consumption expenditure. Likewise, the top 50% of households of the deciles group of household shares 78.66% of the total monthly consumption expenditure whereas the bottom 50% of the deciles group shares 21.34% of the total monthly consumption expenditure. Such a large gap between the top and bottom deciles group in the level on consumption expenditure among the households reveals the presence of high level of inequality in the distribution of consumption expenditure among the households.

Table 6.7 *Deciles group analysis of monthly consumption expenditure*

Deciles groups of households from bottom percent	Total monthly consumption expenditure	% share to total monthly consumption expenditure	Average monthly consumption expenditure
0-10	178670	2.47	2978
10-20	235705	3.26	3928
20-30	291203	4.03	4853
30-40	367923	5.09	6132
40-50	469470	6.5	7824
50-60	596585	8.26	9943
60-70	797481	11	13291
70-80	1060172	14.7	17669
80-90	1362116	18.9	22702
90-100	1864645	25.8	31077
All groups	7223970	100	120397

Source: Compiled from primary data

6.8 Monthly per capita consumption expenditure among the decile groups as to the items of consumption

The differences in the monthly consumption expenditure pattern on broad groups of food and non-food and semi-durables items among the poorer and richer segment of sample has been analysed by using deciles group analysis per household for a period of 30 days. Table 6.8(A) gives the consumption expenditure pattern of sample regarding different food items for each decile group.

So far as, the food consumption is concerned, the results showed that the top 10% of the sample made highest expenditure on fruits and nuts (27.8%) and is closely followed by other items milk and milk products, beverages, vegetables, egg, fish & meats, sugar and sugar products, pulse and pulses products, edible oils, salt and spices and cereals and substitutes. While, the poorest segment or the lowest 10% of sample household spent highest percent (8.84%) on cereals and substitutes and is closely followed by other items such as edible oil, salt and spices, vegetables, sugar and sugar products, egg, fish & meats, pulse and pulse products, beverages and milk and milk products.

Thus, it has been brought to notice from the analysis that for the food items while the lowest 10% of the sample account for 4.55% of total monthly per capita consumption expenditure on food, the top 10% account for 18.3% that is 13.75 times more than the lowest 10% of the sample households.

Table 6.8(B) represents the pattern of consumption expenditure on non-food items. Regarding the consumption of non-food items, it is observed that the top 10% spent highest on petrol and diesel, and is followed by Social obligations and other individuals items such as Entertainments, Education, News paper and periodicals, housing (Rent/Maintenance), Cosmetics, Mobile/Telephone bill, Healthcare, Hygienic and toilets items, Transportations, Firewood/gas, Kerosene, and Miscellaneous.

Thus, so far consumption of non-food consumption items are concerned the lowest 10% of the sample account 1.87% of total MPCE on non-food while, the top 10% of the sample population account 26.2% which is 24.33 times higher than the bottom decile class.

Table 6.8(A) *Percentage of consumption expenditure of broad group of food items per household for a period of 30 days for each deciles group*

Consumption items	Bottom 10%	10-20%	20-30%	30-40%	40-50%	50-60%	60-70%	70-80%	80-90%	Top 10%	All
Cereals and substitutes	8.84	8.67	8.81	7.49	7.36	10.5	9.63	14.2	11.5	13	100
Milk and milk products	0.96	1.29	0.47	2.63	5.82	6.03	15.3	20.1	22	25.4	100
Pulse and pulse products	4.32	6.42	7.02	8.32	10.7	9.32	10.6	12.1	14.6	16.6	100
Edible oil	5.96	7.46	7.37	7.91	10.4	10.3	11.01	11.19	13	15.4	100
Vegetables	5.36	5.72	6.35	7.43	9.19	9.76	11.29	13	14	17.9	100
Egg, fish & meat	5.14	5.84	6.63	7.89	8.14	9.52	12.04	13.4	13.6	17.8	100
Salt and spices	5.56	6.32	7.62	9.48	9.02	10.1	11.9	11.4	13.5	15.1	100
Sugar & sugar products	4.45	6.09	6.2	7.36	9.1	10.3	11.8	12	15.6	17.1	100
Fruits and nuts	0.54	0.37	1.29	2.36	4.61	8.43	13.4	16.3	24.9	27.8	100
Beverages and refreshments	2.65	3.7	4.44	6.31	8.37	10.2	11.8	13.23	18.7	20.6	100
Food Total	**4.55**	**5.41**	**5.91**	**7.07**	**8.7**	**9.58**	**11.78**	**13.3**	**15.4**	**18.3**	**100**

Source: Compiled from primary data

Table-6.8(B) *Percentage of consumption of broad group non-food items per person for a period of 30 days for each deciles group*

Consumption items	Bottom 10%	10-20%	20-30%	30-40%	40-50%	50-60%	60-70%	70-80%	80-90%	Top 10%	All
Housing (maintenance/rent)	2.02	2.97	3.68	5.34	6.15	7.44	10.8	13.6	20.4	27.6	100
Education	1.06	1.59	2.35	3.34	4.38	6.88	12.2	16	24.2	28	100
Electrical Bill	5.4	5.92	7.41	8.19	7.88	9.5	11.5	11.8	16.8	15.6	100
Mobile/Telephone bill	2.74	4.36	5.3	6.99	7.54	11.3	10.9	14	16.27	20.6	100
Firewood/Gas	3.85	4.47	6.67	7.61	9.3	11.1	12.7	12.9	13.8	17.6	100
Kerosene	9.53	9.77	10.2	11.4	9.11	10.18	10.3	9.21	11.4	8.9	100
Petrol/diesel	0.23	0	0	1.27	3.76	7.74	13.3	16.7	22.2	34.8	100
Healthcare	3.29	4.84	5.71	6.5	7.3	9.66	11.2	15.2	16	20.3	100
Hygienic & toilet items	3.67	4.26	5.79	7.21	8.38	9.99	12.9	13.7	16.4	17.7	100
Entertainments	1.4	1.88	2.45	4.05	4.84	6.66	9.12	13.3	23.9	32.4	100
Cosmetic	3.49	4.81	5.43	6.67	7.8	8.3	11.5	13	16.6	22.4	100
Transportation	3.08	5.05	7.13	7.1	9.54	10.1	11.6	12.9	15.4	18.1	100
Newspaper& Periodicals	0.34	0.25	0.15	0.93	3.52	6.91	14.3	19	22.7	31.9	100
Social Obligations	0.45	0.06	0	0.31	3.86	5.82	12.7	18.5	23.8	34.5	100
Miscellaneous	1.14	2.31	2.79	2.56	7.8	10.2	19	14.1	19.3	20.8	100
Non-food total	**1.87**	**2.59**	**3.35**	**4.37**	**5.93**	**8.14**	**12.25**	**14.7**	**20.6**	**26.2**	**100**

Source: Compiled from primary data

Table 6.8(C) *Percentage of consumption of broad group of semi-durables items per person for a period of 30 days for each decile group*

Consumption items	Bottom 10%	10-20%	20-30%	30-40%	40-50%	50-60%	60-70%	70-80%	80-90%	Top 10%	All
Cloths	3.53	4.31	4.87	6.79	8.65	9.55	12.3	14.1	15.6	20.3	100
Footwear	3.61	4.27	4.98	5.26	7.36	9.62	11.4	14.2	17.3	22	100
Furniture	3.2	2.29	3.84	4.98	7.16	7.53	14	14.1	16.2	26.7	100
Utensils	5.34	5.27	5.69	7.44	8.47	9.99	12.6	13.7	14.1	17.4	100
Ornaments	0.47	0.73	1.34	1.03	2.7	7.13	10.5	17.9	28	30.2	100
Vehicle/motor cycle/bicycle (maintenance)	0	0	0	0.07	9.13	0.6	12.3	11.7	52.5	13.7	100
Audio-video	0.65	1.36	2.11	5.28	5.65	9.45	10.8	23.9	17.1	23.7	100
Total Semi-durables	**2.85**	**3.30**	**3.93**	**5.10**	**7.47**	**8.45**	**12**	**14.7**	**20.2**	**22**	**100**

Source: Compiled from primary data

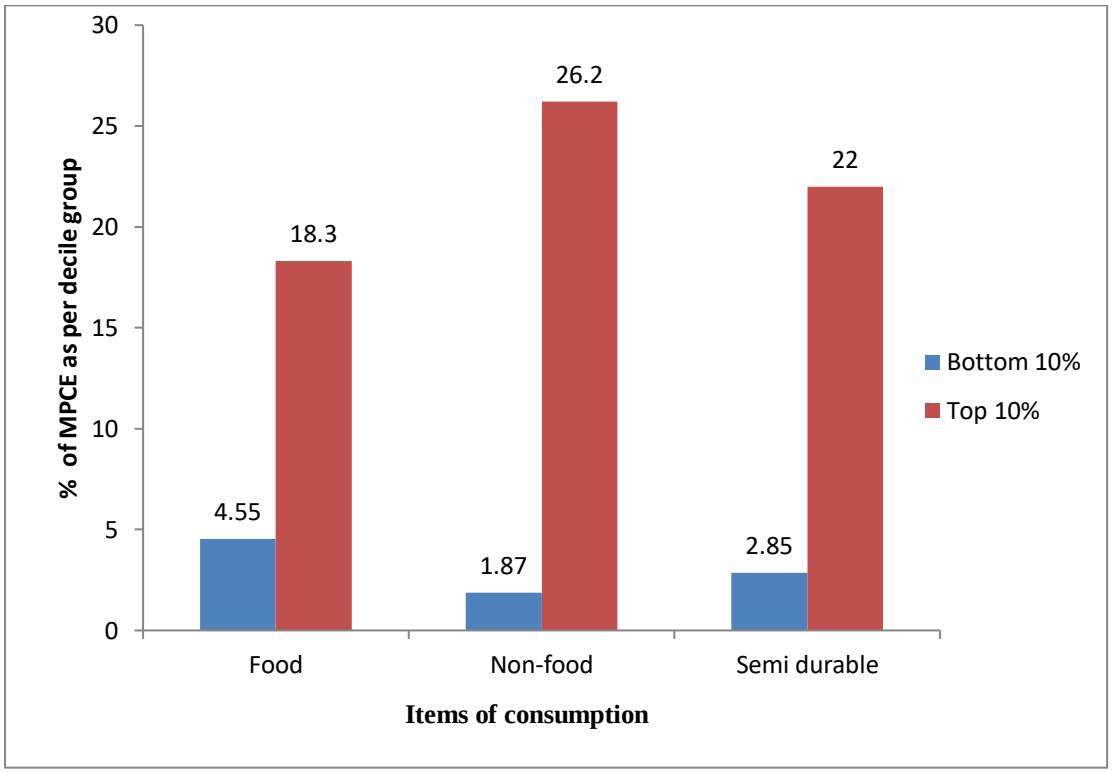
Table 6.8(C) represents the pattern of consumption expenditure on durables or semi-durable items. On the basis of the table, one can establish remarkable differences towards the consumption of durable among the sample households. It is observed that the top 10% spent highest on ornaments and is closely followed by other individuals' items such as furniture, audio-video, footwear, cloths, utensils and vehicle/motorcycle/bicycle maintenance. Whereas, the lowest 10% of the sample spent highest on utensils and is followed by other items such as footwear, cloths, ornaments and audio-video. It is noteworthy to mention here that the bottom 10%, 20% and 30% of the sample population did not report any MPCE on vehicle/motorcycle/bicycle maintenance in the study area.

Regarding, the MPCE on semi-durable it is found that the bottom decile class account for 2.85% of the total MPCE on semi-durables whereas, the top decile class account for 22% of the total MPCE i.e. 19.15 times higher than the lowest decile class.

The differences in the monthly per capita consumption expenditure among the decile groups of the sample population have been presented with the aid of figure 6.1.

Form the figure 6.1, it can be concluded that there are relatively high differences in the monthly per capita consumption expenditure among the decile groups of the sample number of persons. The lowest 10% of the sample population spent 4.55% of their income whereas top 10% of the sample population spent 18.3% of their income for the consumption of food. In case of the consumption expenditure of non-food items, the lowest 10% could spent 1.87% of their monthly income on the contrary, the top 10% of population spent 26.2% of their income on the same. Similarly, in case of semi-durables 2.85% of monthly income for purchasing durable goods whereas the top 10% spent 22% of monthly income for the same. Overall, the lowest decile group made the highest expenditure on food and is followed by semi-durable and non-food. On the other hand for the top decile groups the expenditure on non-food is the highest followed by semi-durables and foods items

Fig.6.1 *Differences in the monthly per capita consumption expenditure among the decile groups*



6.9 Inequality and the Lorenz Curve

Lorenz curve is the graphical way of representing the inequality in the distribution of income and expenditure in the society. In this chapter, Lorenz curve has been used to measure the inequality in the distribution of consumption expenditure among the sample households of the study.

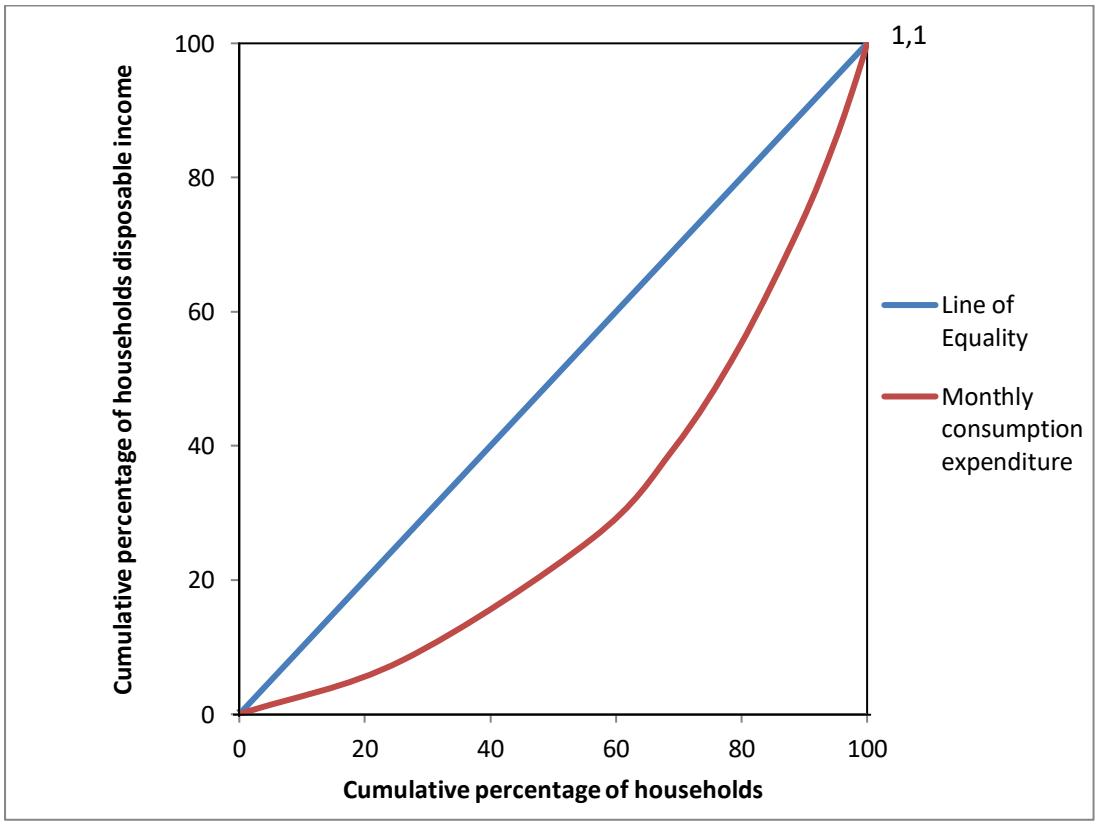
Table 6.9 indicates that out of 600 households, 156 (26%) households shared 8.04% of the total monthly consumption expenditure. Likewise, 337 (56.2%) households have a share of 26.17% of the total consumption expenditure. Similarly, a cumulative of 477 (79.5%) number of households account for 54.5% of total consumption expenditure. Like this, if one goes through the table, it is observed that a cumulative number of households and the cumulative percentage of household's consumption expenditure are not the same rather the gap between the percentages is high. This represents the prevalence of inequality in the consumption expenditure among households. The Lorenz curve so drawn based on the table is given presented in figure 6.2.

Table 6.9 *Calculation of consumption expenditure of sample households for drawing Lorenz curve*

Consumption expenditure range (monthly)	Number of households	Total monthly Consumption expenditure	Cumulative No. of households	Cumulative monthly household consumption expenditure	Cumulative percentage of No. of households	Cumulative percentage of households consumption expenditure
Below-5000	156	580973	156	580973	26	8.04
5000-10000	181	1309469	337	1890442	56.2	26.17
10000-15000	78	969988	415	2860430	69.2	39.6
15000-20000	62	1076267	477	3936697	79.5	54.5
20000-25000	59	1321436	536	5258133	89.33	72.8
25000-30000	33	903428	569	6161561	94.83	85.3
30000-35000	21	689489	590	6851050	98.33	94.84
35000 and above	10	372920	600	7223970	100	100

Source: Compiled from primary data

Fig. 6.2 *Lorenz curve for monthly distribution of consumption expenditure*



The figure 6.2 indicates that the distance of the expenditure curve from the line of equality is very large. In other words, the Lorenz curve so drawn is far from line of equality. Therefore, the level of inequality in the distribution of monthly consumption expenditure among households is high.

6.9.1 Gini co-efficient

While Lorenz curve graphically measures the extent of inequality in the distribution of income or expenditure among households, the Gini co-efficient is the numerical way to measure the extent of inequality prevalent in the distribution of consumption expenditure among the households within an economy. It measures how the household's distribution of consumption expenditure deviates within an economy from the line of perfect equality. The value of Gini-coefficient lies between 0 and 1. The 0 indicates perfect equality while 1 indicates perfect inequality.

Table 6.10 *Calculation of Gini co-efficient*

Cumulative percentage of no. of households **P**	$P_k - P_{k-1}$	Cumulative percentage of households consumption expenditure **q**	$q_k + q_{k-1}$	$(p_k - p_{k-1})(q_k + q_{k-1})$
26	--	8.04	--	--
56.2	30.2	26.17	34.21	1033.1
69.2	13	39.6	65.77	855.01
79.5	10.3	54.5	94.1	969.23
89.33	9.83	72.8	127.3	1251.4
94.83	5.5	85.3	158.1	869.55
98.33	3.5	94.84	180.14	630.49
100	1.67	100	194.84	325.38

$$\sum (p_k - p_{k-1})(q_k + q_{k-1}) = 5934.16$$

$$\text{Gini co-efficient} = 1 - \frac{\sum_{K=1}^{N} (p_k - p_{k-1})(q_k + q_{k-1})}{10000}$$

$$= 1 - \frac{5934.16}{10000}$$

$$= 0.41$$

Table 6.8 shows the calculation of Gini-coefficient. It is observed that the calculated value of Gini co-efficient is 0.41, this indicates that the level of inequality

in the distribution of consumption expenditure among household is high. Such high level of inequality in the consumption expenditure among households reflects the differences in occupation, number of earning members and the amount of land possessed by the households.

6.10 Per capita Consumption Expenditure Analysis

Per capita consumption expenditure is an indicator of economic wellbeing of an individuals or households. Higher the difference in per capita expenditure, greater is the inequality.

Table-6.11 *Monthly Per capita consumption expenditure analysis by economic category (food, on-food and semi-durables)*

Category of households	Total monthly consumption expenditure for all households	Total annual consumption expenditure for all households	Total number of persons of all households	Average Annual per capita consumption expenditure	Monthly per capita consumption expenditure
APL households	6360991	76331891	2016	40648	3387
BPL households	862980	10355761	947	11288	941
Total consumption expenditure of all households	7223971	86687652	2963	26968	2164

Source: Compiled from primary data

Table 6.11 shows that there are inequalities in the monthly per capita consumption expenditure among the different socio-economic categories of households. The monthly per capita consumption expenditure (MPCE) of APL households is Rs.3387, while the MPCE of BPL households is Rs. 941. Thus, the APL category of household enjoys a higher standard of living, on the other hand, the BPL households live at quite subsistence level.

6.11 Comparison of means among the different economic categories of households' monthly consumption expenditure

Table 6.12(A) shows the mean difference between APL and BPL household consumption expenditure of food items. The mean value of APL section of household is 3598 and standard deviation is 1502, while the mean value of BPL section of household is 1703 with its corresponding standard deviation of 517. The't' value is 17.10 that is significant at .000 level.

6.12(A) *Comparison of means of APL and BPL household consumption expenditure on food*

Household Consumption Expenditure on Food	Household Economic Category				't' Value	Degree of Freedom	Level of significance
	APL N = 406		BPL N = 194				
	Mean	SD	Mean	SD			
	3598	1502	1703	517	17.10	598	.000

Source: Primary data

Likewise, table 6.12(B) shows the mean difference between APL and BPL economic category of household consumption expenditure in case of non-food. The mean value of APL is 10044 and standard deviation is 6519, while the mean value of BPL section of household is 2139 and corresponding standard deviation is 985. The't' value is 16.78 that is significant at .000 level.

6.12(B) *Comparison of means of APL and BPL household monthly consumption expenditure non-food*

Consumption Expenditure	Household Economic Category				't' Value	Degree of Freedom	Level of significance
	APL N = 406		BPL N = 194				
	Mean	SD	Mean	SD			
	10044	6519	2139	985	16.78	598	.000

Source: Primary data

6.12(C) *Comparison of means of APL and BPL household monthly consumption expenditure on semi-durable*

Consumption Expenditure	Household Economic Category				't' Value	Degree of Freedom	Level of significance
	APL N = 406		BPL N = 194				
	Mean	SD	Mean	SD			
	2025	1573	608	325	12.42	598	.000

Source: Primary data

Similarly, table 6.12(C) shows the mean difference in consumption expenditure of semi-durable items between the APL and BPL section of households. The table exhibits that the mean value of APL is 2025 with its corresponding standard deviation of 1573, while the mean value of BPL section of household is 608 and corresponding standard deviation 325. The‘t’ value is 12.42 that is significant at .000 level.

The results of tables 6.12(A), 6.12(B) and 6.12(C) reveals that the mean value of APL economic categories of households are much higher than BPL economic categories of household. Therefore, it can be concluded that APL households differ significantly from the BPL households in their monthly per capita consumption expenditure.

6.12 Monthly per capita expenditure of food, non-food and semi-durables

The monthly per capita expenditure on food, non-food and durables as well as the respective share to total per capita expenditure has been presented in table 6.13.

In the table, the monthly per capita expenditure of the 600 hundred sample households has been grouped into nine different MPCE classes. The table indicates that 21% of the sample households are in the lowest MPCE class to Rs.1000 with the MPCE of Rs. 794 of which 40.93% is spent on food, 45.59% spent on non-food and 1.48% spent on semi-durable. 33.67% of households are in the MPCE class of Rs. 1000-2000 with the MPCE of Rs. 1388 of which 33.14% spent on food, 53.89% on non-food, and 12.97% spent on semi-durable. 14.50% of the sample households are in the MPCE class of Rs. 2000-3000 with the MPCE of Rs. 2432 of which 26.19% spent on food, 60.28% spent on non-food and 13.53% spent on semi-durable. 8.83% of households are in the MPCE class of Rs. 3000-4000 with the MPCE of Rs.3542 out of which 23.63% of expenditure is made on food, 62.22% on non-food and 14.14% of expenditures is made on semi-durable by the consumer. 7.84% of households are in the MPCE class of Rs.4000-5000 with the MPCE of Rs. 4457 of which the consumer spent 21.7% on food, 66.82% on non-food and 11.48% on semi-durable. Likewise, it is observed from the table that at higher level MPCE lesser and lesser number of households is concentrated.

From the table, it is clear that 85.84% of the sample households are in the MPCE level from upto1000 – 5000 and 14.16% of households are in the MPCE level of above 5000. It is found that as the MPCE level goes on a higher level the concentration of the number of households goes on declining which means more number of households in the study area have low level of MPCE which may be due to lack of employment opportunities, low level agri-products prices etc.

Table 6.13 *Monthly Per Capita Consumption Expenditure on food, non-food and semi-durable*

MPCE Class	Percentage of households	No. of persons	MPCE in Rs.	Per head expenditure on food	Percentage of expenditure on food	Per head expenditure on non-food in Rs.	Percentage expenditure on non-food	Per head expenditure on durables	Percentage of expenditure on durables
Upto 1000	126 (21.00)	666	794	325	40.93	362	45.59	107	13.48
1000 - 2000	202 (33.67)	999	1388	460	33.14	748	53.89	180	12.97
2000 - 3000	87 (14.50)	470	2432	637	26.19	1466	60.28	329	13.53
3000 - 4000	53 (8.83)	272	3542	837	23.63	2204	62.22	501	14.14
4000 - 5000	47 (7.84)	209	4457	967	21.7	2978	66.82	512	11.48
5000 - 6000	39 (6.50)	171	5510	1155	20.96	3628	65.85	727	13.19
6000 - 8000	30 (5.00)	120	6827	1294	18.96	4579	67.07	954	13.97
8000 -10000	13 (2.17)	46	8773	1560	17.78	6263	71.39	950	10.83
10000 and above	3 (0.50)	10	11534	1915	16.61	8626	74.78	993	8.61

Source: Compiled from primary data

Figures in the parentheses indicate percentage to total no. of persons.

Interestingly, it also clear from the table that at each successive MPCE level the differences in the percentage share of expenditure on food and non-food as well as on semi-durable goods have been noticed. The households with lower MPCE levels have spent more of their income in consumption of food while households with higher MPCE levels have spent more of their income on consumption of non-food items although more or less the consumption of durable goods remained stagnant for the households of all MPCE classes.

6. 13 Item-wise average monthly per capita expenditure as per the MPCE class

Table 6.14(A), 6.14(B) and 6.14(C) present the item-wise average MPCE. The item-wise distribution of monthly per capita consumption expenditure shows that the households with the lowest MPCE level (below Rs.1000) spend Rs. 826 which is split up into Rs.299 for food, Rs. 367 for non-food and Rs. 158 for durables. Out of Rs. 299 of food expenditure, Rs. 29 is spent on cereals and cereals substitutes, Rs. 2 is spent on milk and milk products, Rs. 31 spent on pulse and pulse products, Rs. 40 spent on edible oils, Rs. 58 spent on vegetables, Rs. 71 spent on egg, fish and meat, Rs. 19 spent on salt and spices, Rs. 25 spent on sugar, Rs. 3 spent on fruits and nuts, Rs. 21 spent on beverages.

Likewise, the Rs. 367 expenditure on non-food is split up into Rs. 37 for household rent and maintenance, Rs. 63 on education, Rs. 15 on electricity bill, Rs. 23 on mobile research or top-up, Rs.34 on firewood, Rs. 14 on kerosene, Rs.1on petrol and diesel, Rs. 45 on health care, Rs. 15 on hygienic and toilet items, Rs. 39 on entertainment pan tobacco and intoxicant, Rs. 37 on cosmetic items, Rs. 28 on transportation, Rs. 0.1 on newspaper and periodicals, Rs. 0.33 on social obligations, Rs. 16 spent on miscellaneous.

Again Rs. 158 consumption expenditure of durable is split up into Rs. 96 on clothing, Rs. 25 on footwear, Rs. 10 on furniture, Rs. 12 on utensils, Rs. 11 on ornaments, Rs. 2 for vehicles or motorcycles or bicycle and Rs. 2 audio-videos by the lowest MPCE groups.

It is reflected that for lowest MPCE class (below1000), the highest expenditure item in food group is egg, fish and meat (Rs.71), and is followed by

vegetables(Rs.58), edible oils and cereals etc. and the least expenditure item in the group is fruits and nuts and milk(Rs.2) in the same group. In the non-food group, the highest expenditure item is education (Rs.63) and is followed by healthcare, entertainment & pan, tobacco and intoxicant, cosmetic, firewood and household maintenance expenditure and the least expenditure item newspaper and periodical. Similarly, among the durable items, the highest expenditure item is clothing (Rs.96) and is followed by footwear, utensils, ornaments, furniture, etc. and the least expenditure items are maintenance cost incurred on motorcycle/bicycle and audio-videos in the same MPCE levels.

On the contrary, the distribution of monthly per capita consumption expenditure shows that the households with the highest MPCE level (Rs. 10000 and above) spend Rs. 11130. This is split up into Rs.1912 for food, Rs. 8325 for non-food and Rs. 589 for semi-durables. Again out of Rs. 1912 of food expenditure, Rs. 110 is spent on cereals and cereals substitutes, Rs. 175 is spent on milk and milk products, Rs. 208 spent on pulse and pulse products, Rs. 272 spent on edible oils, Rs. 272 spent on vegetables, Rs467 spent on egg, fish and meat, Rs. 57 spent on salt and spices, Rs. 93 spent on sugar, Rs. 209 spent on fruits and nuts, Rs. 187 spent on beverages.

Likewise, Rs. 8325 total consumption expenditure on non-food is split up into Rs. 288 for household rent and maintenance, Rs. 3611 on education, Rs. 81 on electricity bill, Rs. 203 on mobile research or top-up, Rs.167 on firewood, Rs. 17 on kerosene, Rs.764 on petrol and diesel, Rs. 958 on health care, Rs. 103 on hygienic and toilet items, Rs. 803 on entertainment pan tobacco and intoxicant, Rs. 403 on cosmetic items, Rs. 149 on transportation, Rs. 35 spent on newspaper and periodical, Rs.367 spent on social obligations, Rs. 376 spent on miscellaneous. Again Rs. 589 consumption expenditure of durable is split up into Rs. 331 on clothing, Rs. 41 on footwear, Rs. 8 on furniture, Rs. 36 on utensils, Rs. 160 on ornaments, Rs.6 is allocated for vehicles or motorcycles or bicycle and audio-videos and Rs.7 per month per-head by the highest MPCE groups.

Table 6.14(A) *Item-wise average monthly per capita expenditure (MPCE) of food*

Name of items	**MPCE Class**								
	Below 1000	1000-2000	2000-3000	3000-4000	4000-5000	5000-6000	6000-8000	8000-10000	10000 and above
Cereals and substitutes	29	29	40	39	46	52	24	147	110
Milk and milk products	2	12	34	73	91	100	139	160	175
Pulse and pulse products	31	49	61	70	74	111	128	133	208
Edible oil	40	54	67	76	81	102	122	109	134
Vegetables	58	83	115	135	163	217	237	277	272
Egg, fish and meat	71	103	131	177	197	229	286	330	467
Salt and spices	19	27	34	38	41	48	52	69	57
Sugar	25	34	47	57	70	92	94	115	93
Fruit and nuts	3	8	28	50	66	101	118	133	209
Beverages and refreshments	21	48	80	112	138	185	205	202	187
Total food expenditure	**299**	**447**	**637**	**827**	**967**	**1237**	**1405**	**1675**	**1912**

Source: Compiled from primary Data

Table 6.14(B) *Item-wise average monthly per capita consumption expenditure of non-food*

Name of items	MPCE Class								
	Below - 1000	**1000-2000**	**2000-3000**	**3000-4000**	**4000-5000**	**5000-6000**	**6000-8000**	**8000-10000**	**10000 and above**
Household (maintenance/rent)	37	72	140	222	294	350	390	1167	288
Education	63	140	317	548	1006	1208	1429	2183	3611
Electricity bill	15	24	30	37	42	54	53	72	81
Mobile	23	38	61	84	95	112	152	164	203
Firewood	34	53	77	102	118	103	163	202	167
Kerosene	14	16	15	16	15	16	16	14	17
Petrol and diesel	1	27	128	242	306	485	783	716	764
Health care	45	76	109	157	192	201	348	275	958
Hygienic and toilet items	15	27	44	65	70	76	86	70	103
Entertainments	39	57	143	224	364	565	785	1069	803
Cosmetic items	37	51	79	113	130	146	191	225	403
Transportation	28	45	62	86	96	105	139	164	149
Newspaper & periodical	0.1	3	12	39	38	50	47	71	35
Social obligations	0.33	7	48	102	132	185	256	242	367
Miscellaneous	16	51	124	186	256	270	339	247	376
Total non-food expenditure	**367**	**687**	**1389**	**2223**	**3154**	**3926**	**5177**	**6881**	**8325**

Source: Compiled from primary data

Table 6.14(C) *Item-wise average monthly per capita expenditure of semi-durables*

Name of items	MPCE Class								
	Below - 1000	1000-2000	2000-3000	3000-4000	4000-5000	5000-6000	6000-8000	8000-10000	10000 and above
Clothing	96	175	174	179	173	180	154	150	331
Footwear	25	46	48	49	38	49	37	35	41
Furniture	10	26	37	43	22	22	37	22	8
Utensils	12	22	25	22	19	21	18	25	36
Ornaments	11	53	83	73	49	31	45	8	160
Vehicle/m.cycle/bi cycle(maintenance)	2	5	46	71	18	36	35	9	6
Audio-videos	2	6	5	7	11	7	4	9	7
Total semi-durable expenditure	**158**	**333**	**418**	444	**330**	**346**	**330**	**258**	**589**
Average Consumer expenditure(food, non-food, semi-durable)	**826**	**1468**	**2444**	**3495**	**4451**	**5508**	**6912**	**8816**	**11130**

Source: Compiled from primary data

It is also observed that in the highest MPCE level (Rs.10000) on individuals items of expenditure the highest expenditure item in the food group is egg, fish and meat (Rs.467), and is followed by vegetables (Rs.272), fruits and nuts (Rs.209), pulse and pulse products (Rs.208), beverages (Rs.187), etc. and the least expenditure item in food in the same MPCE level is salt and spices (Rs.57). In the non-food group, the highest expenditure item is education (Rs.3611) and is followed by health care expenditure (Rs.958), entertainment (Rs.803), petrol and diesel (Rs.764) and the least expenditure item among the non-food is kerosene (Rs.17). Similarly, among the durable items the highest expenditure item is clothing (Rs.331) and is followed by ornaments (Rs.166), footwear (Rs.41), furniture (Rs.8), Audio-video types of equipment (Rs.7) etc. and the least expenditure item is maintenance expenditure incurred on vehicle or motorcycle or bicycle per month per head.

The results of the table indicate that in between the level of MPCE groups there are differences in the amount of item-wise expenditures.

1.14 Estimation of consumption function

The consumption function (Keynesian Psychological law of Consumption) which reveals the relationship between household disposable income and consumption expenditure of Baksa district of Assam is estimated with the following linear regression model as stated in the sub-headline 'Framework for Analysis'. Result of the regression model representing consumption function of Baksa district of Assam is given below-

6.15 *Co-efficient of regression model for consumption function*

Variables	Regression Co-efficient
Intercept (β_0)	27903 (10.805)
Annual Household disposable income (β_1)	0.924 (59.104)
Adjusted R^2	0.854
F Value	3493.295
No. of observations	600

Figures in the parentheses indicate't' value
**Indicates that cp-efficient are significant at 5 percent level*

Table 6.15 depicts that the value of intercept term β_0 (27903) which indicates that the households in the Baksa district of Assam on an average spend Rs. 27903 for the

consumption of different food, non-food and semi-durable items even when their income is zero. The value of β_1 (0.924) which represent slope co-efficient reveals the marginal propensity to consume. It indicates that the estimated increase in the household annual consumption expenditure amounts to 92 paisa as their annual household disposable income increases by one rupee or in percentage one percent increase in household disposable income results 0.92 percent increase in household consumption expenditure. The value of R^2 indicates that 85.4 percent of variations in the annual household consumption expenditure are explained by household disposable income. This represent that there exists a high positive correlation between the household consumption expenditure and disposable income. The intercept value and slope co-efficient are statistically significant at five percent level of significance and therefore, it can be concluded that the household disposable income is a significant factor influencing the household consumption expenditure. The overall regression model is statistically significant, as F value is statistically significant at five percent level. Therefore, the Keynesian psychological law of consumption is found applicable among the households of Baksa district of Assam.

6.15 Analysis of the impact of income, household size, household debt and locational distance elasticity of the household for various items of consumption expenditure

It is stated that there are different factors that influence the consumption expenditure pattern of households. In the present study, only the four factors have been considered and these are- household disposable income, household size, household debt and locational distance of the household from the market or urban centre.

(i) Interpretation of regression analysis on food items

The results of multiple linear regression models showing the impact of income elasticity, household size elasticity, household debt elasticity and location distance elasticity of the households on the consumption expenditures of food item is presented in table 6.16(A).

It is found that the income elasticity of expenditure on cereal and cereal substitutes is 0.149 which implies that holding household size, household debt and locational distance constant, a one percent increase in disposable income of the household results 0.149 percent increase in the consumption expenditure of cereal and cereals substitutes. The household size elasticity of expenditure on cereals and cereals substitutes is 0.041 which means other factors remaining constant a one percent increase in household size results a 0.041 percent increase in consumption expenditure on cereals and cereals substitutes. Similarly, the household debt elasticity on the consumption expenditure of cereals is negative (-0.133) which indicates that things remaining constant, one percent increase in household debt results 0.133 percent decrease in the consumption expenditure of cereals. The locational distance of the village from the market is negative (-0.015) which indicates that an increase in locational distance of the household from the market place does not lead to an increase in consumption expenditures of cereals if other things remain constant. The value of R^2 is 0.023 which implies that the independent variables household disposable income and household size, household debt and locational distance of the household from the market or urban centre explain only 2.3 percent of variation in consumption expenditure of cereals and cereals products. The values of regression co-efficient state that disposable income and household debt significantly influences the expenditure on cereals and cereals substitutes, whereas the household size and locational distance of the household from the market or urban centre do not influence the consumption expenditure on cereal and cereal substitutes significantly.

The income elasticity of expenditure on milk and milk products is positive (0.628) which means other factors remaining constant, a one percent change in disposable income brings 0.628 percent change in the expenditure of milk and milk products in the same direction. Similarly, the household size elasticity of expenditure on milk and milk products is also positive (0.002) which indicates that a one percent increase in the size of household results in 0.002 percent increase in the expenditure on milk and milk products. In other words, holding other factors as constant expenditure on milk increases as household size increases and expenditure on the same decreases as household size decreases. The impact of household debt on the consumption expenditure of milk is negative (-0.093) which indicates that a one

percent increase in debt results in 0.093 percent decrease in the consumption expenditure of milk. The locational distance of the village from the market is found positive which indicates that further the distance of the household from the market place greater is the possibility of an increase in the household consumption expenditures of milk and milk products.

The value of R^2 is 0.359 indicating that 35.9 percent of fluctuations in expenditure on milk is explained by income, household size, household debt and locational distance of the household. The 't' value indicates that at five percent level disposable income and household debt is a significant factor influencing the expenditure on milk whereas it is found that household size and locational distance of the sample household from market place do not have a significant influence on milk and milk products.

Likewise, the expenditure on pulse and pulse products shows that the income elasticity and household size elasticity is positive (0.448) and (0.158) respectively whereas household debt and distance of the household from the market place are negative -0.102 and -0.097 respectively. This indicates that a one percent increase in disposable income and household size results 0.448 percent and 0.158 percent increase in consumer expenditure and one percent increase in household debt results 0.102 percent decrease in consumer expenditure on pulse and pulse products. Similarly, locational distance elasticity is refers that increase in household distance from the market does not lead to an increase in consumer expenditure. The value of R^2 is 0.287 indicating that 28.7 percent of fluctuation in expenditure on pulse and pulse products is explained by income, household size, household debt and location of the household. The't' values of regression coefficient reveal that the disposable income, household size, household debt and location of the household have a significant influence on the consumption of pulse and pulse products.

The income elasticity and household size elasticity of expenditure on edible oils is positive (0.492) and (0.153) which implies that a one percent increase in income and household size lead to 0.492 percent and 0.153 percent increase in consumption expenditure of edible oils. On the other, household debt and locational distance of the household is negative (-0.098) and (-0.035) respectively which signifies that a one percent increase in household debt decreases the consumer

expenditure on edible oils by 0.098 percent and increase in distance of the household from the market place do not increases the consumption expenditures on edible oils. The value of R^2 is 0.330 indicating that 33 percent of fluctuations in expenditure on edible oils are explained by income, household size, household debt and locational distance of the household from the market place. The 't' values of regression coefficient reveals that disposable income, household size and household debt has a significant influence on the consumption expenditure pattern of edible oil, on the other hand, locational distance of the village from the market place do not have a significant influence.

Table 6.16(A) *Impact of* i*ncome, household size, household debt and locational distance elasticity on food items*

Item of expenditure (dependent variable)	Regression Coefficient				R^2	Adjusted R^2	F Value
	β_1 (Income elasticity)	β_2 (Household size elasticity)	β_3 (Household debt)	β_4 (Locational distance)			
Cereals and cereals substitutes	0.149* (3.434)	0.041 (0.989)	-0.133* (-3.083)	-0.015 (-0.363)	0.029	0.023	4.482
Milk and milk products	0.628* (17.841)	-0.002 (-0.062)	-0.093* (-2.671)	0.047 (1.418)	0.364	0.359	84.909
Pulse and pulse products	0.448* (9.833)	0.158* (4.421)	-0.102* (-2.765)	-0.097* (-2.765)	0.293	0.287	49.279
Edible oils	0.492* (11.144)	0.153* (4.434)	-0.098* (-2.749)	-0.035 (1.032)	0.336	0.330	60.139
Vegetables	0.614* (15.441)	0.086* (2.755)	-0.083* (-2.592)	-0.056 (-1.813)	0.462	0.458	102.06
Egg, Fish & Meat	0.615* (15.437)	0.074* (2.374)	-0.090* (-2.786)	0.020 (0.648)	0.460	0.456	101.339
Salt& Spices	0.488* (11.505)	0.190* (5.722)	-0.153* (4.466)	0.103* (3.141)	0.388	0.383	75.432
Sugar and sugar products	0.569* (13.683)	0.098* (3.013)	-0.061 (-1.822)	-0.023 (-0.728)	0.411	0.406	83.029
Fruits & Nuts	0.773* (22.492)	-0.065* (-2.411)	-0.084* (-3.020)	-0.010 (-0.359)	0.598	0.595	175.885
Beverages and refreshments	0.626* (16.192)	0.033 (1.082)	-0.093* (-2.962)	0.001 (0.035)	0.492	0.488	114.825
Food total	**0.788* (27.625)**	**0.090* (4.020)**	**-0.137* (-5.923)**	**-0.013 (-0.610)**	**0.724**	**0.721**	**310.995**

Source: Computed from primary data
Figures in the parentheses indicate't' values.
**Indicates that the coefficient is significant at five percent level.*

In the case of vegetables, the income elasticity (0.614), household size elasticity (0.086) has a positive influence on consumption expenditure of vegetables. On the other hand, the household debt (-0.083) and distance of the household from the market place (-0.056) has a negative influence on the consumption expenditure pattern of vegetables. This implies that a one percent increase in income and household size lead to 0.614 percent and 0.086 percent increase in consumption expenditure of vegetables. On the other, household debt and locational distance of the household is negative which signifies that a one percent increase in household debt decreases the consumer expenditure on vegetables by 0.083 percent and increase in distance of the household from the market place do not increases the consumption expenditures on vegetables. The value of R^2 is 0.458 indicates that 45.8 percent of variations in expenditure on vegetables is explained by income and household size. The 't' values of regression coefficient reveal that disposable income, household size and household debt significantly influences the expenditure on vegetables whereas household distance from the market place do not have a significant influence on the consumption expenditure for vegetables.

In respect of egg, fish & meat, the income elasticity of expenditure is (0.615) household size elasticity of expenditure is (0.074), the household debt elasticity is (-0.090) and the locational distance of the household is (0.020). It thus shows that a one percent increase in income and household size reflects 0.615 percent and 0.074 percent increase in consumer expenditure on egg, fish & meat respectively and like this, distance of the household from the market place increases the consumption expenditures on vegetables whereas a one percent increase in household debt results 0.090 percent decreases in consumers expenditure on vegetables. The value of R^2 is 0.456, indicates that 45.6 percent of variations in expenditure on vegetables is explained by income, household size, household debt and locational distance of the household. The 't' values of regression coefficient reveal that while the disposable income, household size and household debt has significant influences consumption expenditure of egg, fish & meat, the locational distance of the household doesn't.

Regarding, the consumption expenditure on salt and spices the analyses reveals that income elasticity is (0.488) household size elasticity is (0.190), household debt (-0.153) and the locational distance of the household is (0.103). This implies that one percent increase in income, household size and household debt

results 0.488 percent increase, 0.190 percent increase and 0.153 percent decrease in consumer expenditure on salt and spices respectively. The positive co-efficient on the locational distance of the household from the market place indicates that the consumers expenditure on salt and spices increases with the increase in household distance. The value of R^2 is 0.383, which means that 38.3 percent of variations in expenditure on salt and spices are explained by income, household size, household debt and locational distance of the household from the market place. The 't' values of regression coefficient reveal that disposable income, household size, locational distance have a significant influence on consumption expenditure of salt and spices.

The income elasticity and household size elasticity of expenditure on sugar and sugar products is positive (0.664) and (0.091) respectively, revealing a one percent increase in household disposable income and household size leads to 0.664 percent and 0.091 percent corresponding increase in consumer expenditure on sugar and sugar products respectively. On the other hand, the household debt and locational distance of the household from the market or urban centres on consumption expenditures of sugar and sugar product is negative (-0.061) and (-0.023) respectively, indicating a one percent increase in household debt results 0.061 percent decrease in the consumption expenditure of sugar and sugar products. Like this, locational distance exhibits that consumer expenditure on the same does not increases with the increase in household distance from the market or urban centres. The value of R^2 is 0.406, which means that 40.6 percent of variations in expenditure on sugar and sugar products explained by disposable income, household size, household debt and locational distance of the household. The 't' values of regression coefficient indicate that disposable income and household size have a significant influence on consumption expenditure of sugar and sugar products.

The income elasticity and the locational distance of the household on fruits and nuts is positive (0.773) and (0.010) respectively. On the other hand, household size elasticity of expenditure and household debt on fruits and nuts is negative (-0.065) and (-0.084). The positive income elasticity implies that other things remaining constant a one percent increase in disposable income results 0.773 percent increase in consumption expenditure of fruits and nuts. Likewise, an increase in distance of the household from urban centres or markets increases the expenditure of fruits and nuts. On the other hand, the negative household size elasticity indicates

that other things remaining constant, one percent increase in household size results 0.084 percent decrease in the consumption expenditure of fruits and nuts and one percent increase in household debt results 0.065 percent decrease in the consumption expenditure fruits and nuts in the household. The 't' values of regression coefficient reveals that household disposable income, household size and household debt have a significant influence on the expenditure of fruits and nuts whereas the distance of the household from the market does not have a significant influence.

Similarly, the consumer expenditures on beverages and refreshments represents that a one percent increase in household disposable income results 0.626 percent increase in consumer expenditure on beverages and refreshments, a one percent increase in household size results 0.033 percent increase in consumer expenditures on the same and locational distance of household (0.001) have a positive influence on the consumption expenditure of beverages and refreshments which indicates that an increase in household distance from the market leads to increase in the consumer expenditure on beverages and refreshments. On the other hand, the household debt elasticity is negative (-0.093) which reflects that a one percent increase in household debts lead to 0.093 percent decrease in household consumption expenditure on beverages and refreshments. The value of R^2 is 0.488, which means that 48.8 percent of variations in consumer expenditure on beverages and refreshments is explained by disposable income, household size, household debt and locational distance of the household. The 't' values of regression coefficient reveal that only the disposable income and household debt has significant influence on the consumption expenditure of beverages and other two factors i.e., household size and locational distance of the household have not been found significant.

However, except locational distance of household from the market, that is household disposable income, household size and household debt elasticity has a positive and significant impact on the overall consumption expenditures of food items.

It is observed from the table that among the food items the magnitude of income elasticity of expenditure on fruits and nuts is greater which is closely followed by milk and milk products and the magnitude of income elasticity of expenditure on cereals and substitutes is the lowest. Since the income elasticity of

expenditure of all items of expenditure is positive and income elasticity of expenditure is less than unity the change in consumption expenditure for all households is less than the proportionate increase in the disposable income of household.

Similarly, it is found that the magnitude of household size elasticity is highest on salt and spices, followed by edible oil and lowest in milk and milk products. Household size elasticity is also positive for the items of expenditure on pulse and pulse products, edible oils, vegetables, egg, fish & meat, salt and spices, sugar and sugar products and beverages whereas negative for cereals and substitutes, milk and milk products and fruits and nuts. The positive household size elasticity reveals that an increase in household size is accompanied by an increase in consumption expenditure because a minimum level of food is essential to survive. Under such a situation, when the income of household does not change the increase in expenditure is either met by borrowing or from past savings or curtailing the expenditures on others items which are deemed to be less important. The item in which an additional amount of expenditure is increasing due to an increase in the size of the household is called positive household size elasticity and the items in which expenditure is lessened or curtailed due to an increase in the size of the households are called negative household size elasticity.

Likewise, it is found that the magnitude of household debt elasticity is higher in salt and spices, followed by fruits and nuts and is lowest in on sugar and sugar products. It is also observed that household debt elasticity is negative for all items of expenditure on food which reveals that the increase in household debt results in the reduction of household consumption expenditure for different food items. Because some parts of household disposable income is being diverted for the repayment of debt or loan.

It is observed that the magnitude of household distance from the market or town is highest on salt and spices, followed by pulse and pulse products and lowest on beverages. Household distance elasticity is also positive for the items of expenditure on milk and milk products, egg, fish& meat, salt and spices and beverages and refreshments. This reveals that the increase in locational distance of the household increases the household consumption expenditure on these food

items. Whereas it is negative, in the case of cereals and substitutes, pulse and pulse products, edible oil, vegetables, sugar and sugar products and fruits and nuts implying that increase in the locational distance of the household from the markets do not increases the expenditures made on these food items.

(ii) Interpretation of regression analysis on non- food items

It is found that households made expenditure on fifteen non-food items. Therefore, fifteen regression models are constructed and in each model the expenditure on particular item is a dependent variable and disposable income, household size, household debt and locational distance of the household from market or urban centre are the independent variable.

Table 6.16(B) presents the impact of the income elasticity, household size elasticity, household debt and distance of the household from the market in the consumption expenditure pattern of different non-food items. It is observed that income elasticity (0.647), household size elasticity (0.023) and locational distance of the household from the market (0.027) are positive while the household debt is negative (-0.118). This implies that other things remaining unchanged a one percent increase in disposable income of the household results 0.647 percent increase in the expenditure on housing. Similarly, a one percent increase in household size results 0.023 percent raise and so is the increase in locational distance of the household from market or urban centres raises the expenditure on housing. On the other hand, the negative household debt elasticity refers that other things remaining constant a one percent increase in household debt results in 0.118 percent decrease in household consumption expenditure on housing. The value of R^2 is 0.276 which means that the explanatory variables household disposable income, household size, household debt and distance of the household explain 27.6 percent of variation in the consumption expenditure of household on housing. The value of regression coefficient states that household disposable income, household debt significantly influences the household expenditure on housing.

The income elasticity of expenditure on education is 0.657, household size elasticity of expenditure on education is 0.040, household debt elasticity on educational expenditure is 0.051 implying that other things remaining constant one

percent increase in household disposable income results 0.657 percent increase in educational expenditure, one percent increase in household size results 0.040 percent increase in educational expenditure of the household and one percent increase in household debt results 0.051 percent rise in household educational expenditure. On the other hand, locational distance of the household has a positive (0.005) impact on educational expenditure that is the increase in locational distance of the household lead an increase in the household expenditure on education. In other words, other things remaining constant, expenditure on education increases as income increases and expenditure on the same decreases as income decreases. Similar is the case of household size, household debt and locational distance of the household from the market or urban centres. The value of R^2 is 0.488 indicating that 48.8 percent of fluctuations in expenditure on education are explained by household disposable income, household size, household debt and locational distance of the households. The't' value indicates that at five percent level disposable income is a significant factor influencing the expenditure on education while household size, household debt and locational distance of the household are not significant.

In the case of electrical bill, the income elasticity is 0.307, household size elasticity is 0.036 locational distance elasticity of the household is 0.086. This implies that a one percent rise in household disposable income and household size results 0.307 percent and 0.036 percent increase household consumption expenditure on electricity and the increase in locational distance of the household also lead to increase in the expenditure on payment related to electricity bill. On the other hand, the household debt elasticity is -0.024, which signifies that a one percent increase in household debt reduces the expenditure on the electricity by 0.024 percent. The R^2 value is 0.123 which indicates that together these factors represent 12.3 percent of fluctuations in the payment made towards electricity and the "t" value indicates that only the household disposable income is a significant factor influencing the household consumption expenditure on electricity.

Likewise, the income elasticity is 0.615, household size elasticity is 0.114, and locational distance of the household is 0.018 in case of the mobile or telephone bill. This implies that a one percent rise in household disposable income and household size results 0.615 percent and 0.114 percent rise in the household consumption expenditure on mobile or telephone and locational distance of the

household states that the expenditure on payment related to mobile or telephone bill increases with the increase in household distance from urban centres or markets . On the other hand, the household debt elasticity is -0.067, which signifies that a one percent increase in household debt reduces the expenditure on the mobile or telephone by 0.067 percent. The R^2 value is 0.489 which indicates that together these factors represent 48.9 percent of fluctuations in the payment made towards the mobile bill and the't' value indicates that household disposable income, household size and household debt are the significant factors influencing the mobile or telephone related expenditures.

In respect of the firewood, the household disposable income and household size elasticity are positive that is 0.416 and 0.057 respectively whereas household debt and locational distance of the household are negative which is -0.064 and -0.028 respectively. This implies that a one percent increase in household disposable income and household size the expenditures on firewood increases by 0.416 percent and 0.057 percent respectively, while a one percent increase in household debt results 0.064 percent decrease in household consumption expenditure. The locational distance of households from the market or urban centres states that with the increase in household distance from the market or urban centres, the expenditures on firewood do not increases. The value of R^2 implies that all these factors represent only 29.1 percent of fluctuations in expenditures made by the household in case of firewood. The 't' value indicates that only disposable income of the household is the significant influencing factor of the household consumption expenditure on firewood.

In respect of Kerosene, the household disposable income and household debt elasticity are negative which is -0.015 and -0.126 respectively whereas household size elasticity and locational distance of the household is positive that is 0.102 and 0.140. This implies that a one percent increase in household disposable income and household debt respectively results 0.015 percent and 0.126 percent decrease in the household consumption expenditure on kerosene. While a one percent increases in household size results 0.102 percent increase in the household consumption expenditure on Kerosene and the expenditures on kerosene increases with the increase in locational distance of the household from the market or urban centres. The value of R^2 implies that all these factors represent only 4 percent of fluctuations

in expenditures made by the household in case of kerosene. The 't' value indicates that except disposable income of the household other three factors are significant.

Regarding the expenditures on petrol and diesel, it is observed that the household disposable income is 0.741 and household debt elasticity is 0.056. Whereas household size elasticity is -0.041 and locational distance of the household is -0.060. This implies that a one percent increase in household disposable income and household debt raises the expenditures on petrol and diesel by 0.741 percent and 0.056 percent respectively. While a one percent increases in household size results 0.041 percent decrease in household expenditure on Petrol and diesel. The locational distance of the household states that the increase in household distance from the market or urban centres do not increases the household expenditure on petrol and diesel. The value of R^2 implies that all these factors represent 57.1 percent of fluctuations in expenditure made by the household in case of petrol and diesel. The't' value indicates that except disposable income of the household other three factors do not have any significant influence in the household consumption expenditure on petrol and diesel.

From the analyses of the household healthcare expenditure, it is seen that the income elasticity is 0.520, household size elasticity is -0.018, household debt elasticity is -0.042 and the locational distance elasticity is -0.029. That is a one percent increase in household disposable income lead to 0.520 percent increase in the expenditure on healthcare, on the contrary a one percent increase in household size results 0.018 percent decrease in household's expenditure on healthcare, similarly, a one percent increase in household debt results 0.042 percent decrease in healthcare expenditure of the household. The locational distance of the household indicates that increase household distance from the market or urban centres do not lead to an increase in healthcare expenditure of the household. The value of R^2 implies that these factors represent 29 percent of fluctuations in expenditures made by the household in case of healthcare. The 't' value indicates that only the disposable income of the household has a significant influence on health care and other three factors under study do not have any significance.

The household expenditure on hygienic and toilet items is positively influenced by income elasticity (0.544), household size elasticity (0.039) and

locational distance of the household (0.015) and whereas negatively influenced by household debt (-0.168). This reveals that a one increase in household income results 0.544 percent in household consumption expenditure on hygienic and toilet items, similarly, a one percent increase in household size results 0.039 percent increase in household consumption expenditure of hygienic and toilet items. The increase in locational distance of the household from the market lead to increase in the consumption expenditure on hygienic and toilet items on the other hand, a one percent increase in household debt lead to 0.168 percent decrease in consumption expenditure of the household. The value of R^2 indicates that together all these factors explains 36.8 percent of fluctuation in the consumption expenditure of hygienic and toilet items and the 't' value indicates that out of these factors the household disposable income and household debt is significant and other two factors are not significant.

The household expenditure on entertainment is positively influenced by income elasticity (0.767) and locational distance of the household from the market (0.016) whereas negatively influenced by household size elasticity (-0.055) and household debt (-0.030). The positive elasticity reveals that a one percent increases in household income results 0.767 percent increase in the household consumption on entertainments. The locational distance of the household from the market or town implies that the consumption expenditure on entertainments increases with the increase in household distance from the markets or urban centres. On the other hand, the negative elasticity of household size and household debt reveals that a one percent increase in household size and household debt lead to 0.055 percent and 0.030 percent decline on the consumption expenditure of entertainment respectively. The value of R^2 indicates that these factors explains 52.6 percent of fluctuation in the consumption expenditure of entertainment and the 't' value indicates that only the household income elasticity is significant and other three factors are not significant.

In respect of household consumption expenditure on cosmetic items, the table 6.15 shows that consumption expenditure of cosmetic is positively influenced by income elasticity (0.636) and household size elasticity (0.157) while the household debt (-0.003) and locational distance of the household from the market (-0.033) has a negative influence. The positive elasticity of income and household size

reveals that a one percent increase in household income and household size results 0.636 percent and 0.157 percent increase in the household consumption expenditure on cosmetics raises and on the contrary, the negative elasticity of household debt reveals that one percent increase in household debt results 0.003 percent decrease in household consumption expenditure on cosmetics and household distance from the market or town reveals that increase in household distance from the market or urban centres does not lead to an increase in the household consumption expenditure on cosmetics. The value of R^2 indicates that these factors explain 51 percent of fluctuation in the consumption expenditure of cosmetics and the 't' value indicates that only the household income elasticity and household size is significant and other are not significant.

Likewise, the household consumption expenditure on transportation is positively influenced by income elasticity (0.482), household size elasticity (0.077) implying that a one percent increase in household income and household size results 0.482 percent and 0.077 percent increase in household consumption expenditure on transportation. Whereas negative household debt (-0.090) implies that one percent increase in household debt results 0.090 percent decrease in household expenditures on transportation. Likewise, the locational distance of the household from the market is negative (-0.014) implies that the distance of the household from the market or town do not lead to an increases the household expenditure on transportation. The value of R^2 indicates that this factor together explains 33.9 percent of fluctuations in the consumption expenditure of transportation. The't' value indicates that elasticity in household income, household size and household debt is significant whereas household distance from the market is not significant.

From the table, it has been brought notice that household consumption expenditure on newspaper and periodical is positively influenced by household income elasticity (0.607), household debt elasticity (0.048) and locational distance of the household (0.018). This implies that a one percent increase in household income and household debts lead to 0.607 percent and 0.048 percent rise in household consumption expenditure in news papers and periodicals. On the other hand, household size elasticity is negative (-0.088) which signifies that a one percent increase in household size leads to 0.088 percent decline in the consumption expenditure of newspapers and periodicals. Likewise, the increase in household

distance from the market or urban centres lead to increase in household's consumption expenditure on news papers and periodicals as it is positive. The value of R^2 shows that together this factor explains 40.2 percent of variations in the consumption expenditure of news and periodical. The't' value indicates that elasticity in household income, household size is significant whereas household debt and household distance from the market is not significant.

The household expenditure on social obligations in positively influenced by household disposable income (0.759) and household debt (0.010) whereas it is negatively influenced by household size (-0.091) and locational distance of the household (-0.027). The positive household income implies that a one percent increase in household disposable income and increase in household debt increases the household contribution towards social obligations by 0.759 percent and 0.010 percent. On the contrary, one percent increase in household size results 0.091 percent decrease in household contribution towards social obligations and the locational distance of a household does not maximize the household contributions towards social obligations. The R^2 value shows that these factors represent 55.5 percent fluctuations in the household consumption expenditures on social obligations. The 't' value is significant at five percent level for household disposable income and household size and not significant for household debt and locational distance of the household.

The household expenditure on miscellaneous goods and services is positively influenced by household disposable income (0.288) and household size (0.067). On the other hand, it is negatively influenced by household debt (-0.010) and locational distance of the household (-0.033). This signifies that a one percent increase in household income and size of the household results 0.288 percent and 0.067 percent increase in household consumption expenditure on miscellaneous good and services. Whereas when the household debt increases by one percent then it leads to 0.010 percent decline in household consumption expenditure on miscellaneous good and services. The locational distance of the household from the market or urban centres states that increase in household distance from the markets do not lead to an increase in household's consumption expenditure on miscellaneous goods and services. The R^2 value shows that these factors represent only 15 percent fluctuations in the household consumption expenditures of miscellaneous goods and services. The't'

value is significant at five percent level for household disposable income and not for household size, household debt and locational distance of the household.

However, for the broad group of non-food item, the table 6.16(B) shows that household consumption expenditure of entire non-food item is positively influenced by household disposable income (i.e. 0.873) and household size (i.e. 0.023). On the contrary, it is negatively influenced by household debt (i.e. -0.008) and locational distance of the household (i.e. -0.014). This signifies with an increase in household income and size of the household by one percent, it leads to corresponding increase in the consumption expenditure on non-food items as a whole by 0.873 percent and 0.023 percent respectively but opposite is the case when the household debt increases by one percent then it decreases the household consumption expenditure on non-food by 0.023 percent. And overall, the locational distance of the household from the market or urban centres do not increases the household consumption expenditure on non-food items. The value of R^2 indicates that these factors represent 82.3 percent fluctuations in the household consumption expenditures of various non-food items. The‘t’ value indicates that at five percent level household disposable income is the significant factor influencing the household consumption expenditure pattern of non-food items whereas the household size, household debt and locational distance of the household from market or town do not have any significant.

Similarly, from the table 6.16(B) it is observed that among the non-food items the magnitude of income elasticity of expenditure on social obligation is greater which is closely followed by petrol and diesel and the magnitude of income elasticity of expenditure on kerosene is the lowest. Since the income elasticity of expenditure of all items except kerosene is positive and less than unity the change in consumption expenditure for all households is less than the proportionate increase in the disposable income of the household.

Likewise, it is found that the magnitude of household size elasticity of consumption expenditure is highest on mobile or telephone bills followed by social obligation and lowest is on housing. The household size elasticity is positive for the items of expenditure on housing, education, electrical bill, mobile or telephone bill, firewood, kerosene, hygienic and toilet item, cosmetics, transportation, and miscellaneous good and miscellaneous goods and services. This means that an

increase in household size is accompanied by an increase in consumption expenditure of these items. Whereas negative in case of petrol-diesel, health care, entertainment, newspaper and periodical and social obligations implying that increase in household size decreases the consumption expenditure of these non-food items.

Table-6.16(B) *Impact of income, household size, household debt and locational distance elasticity on non-foods items*

Item of expenditure (dependent variable)	Regression Coefficient				R^2	Adjusted R^2	F. Value
	β_1 (Income elasticity)	β_2 (Household size elasticity)	β_3 (Household debt)	β_4 (Locational distance of household)			
Housing	0.647* (15.170)	0.023 (0.694)	-0.118* (-3.420)	0.027 (0.819)	0.381	0.276	73.057
Education	0.657* (17.002)	0.040 (1.324)	0.051 (1.642)	0.005 (0.184)	0.492	0.488	114.958
Electrical bill	0.307* (6.067)	0.036 (0.904)	-0.024 (0.598)	0.086 (2.206)	0.130	0.123	17.775
Mobile/telephone bill	0.615* (15.925)	0.114* (3.760)	-0.067* (-2.132)	0.018 (0.593)	0.493	0.489	115.721
Firewood	0.416* (9.147)	0.057 (1604)	-0.064 (-1.752)	-0.028 (0.803)	0.297	0.291	50.184
Kerosene	-0.015 (-0.284)	0.102* (2.452)	-0.126* (-2.940)	0.140* (3.423)	0.049	0.040	6.056
Petrol & diesel	0.741* (20.968)	-0.041 (-1.465)	0.056 (1.964)	-0.060 (-2.216)	0.575	0.571	160.633
Healthcare	0.520* (11.415)	-0.018 (-0.519)	-0.042 (-1.135)	-0.029 (-0.820)	0.296	0.290	49.909
Hygienic & toilet items	0.544* (12.674)	0.039 (1.152)	-0.168* (-4.846)	0.015 (0.450)	0.373	0.368	70.732
Entertainments	0.767* (20.632)	-0.055 (-1.893)	-0.030 (-0.995)	0.016 (0.575)	0.530	0.526	133.725
Cosmetic	0.636* (16.820)	0.157* (5.318)	-0.003 (-0.086)	-0.033 (-1.143)	0.514	0.510	125.478
Transport	0.482* (10.968)	0.077* (2.229)	-0.090* (-2.547)	-0.014 (-0.419)	0.345	0.339	62.371
Newspaper & Periodicals	0.607* (14.527)	-0.088* (-2.698)	0.048 (1.431)	0.018 (0.547)	0.407	0.402	81.549
Social obligations	0.759* (21.059)	-0.091* (-3.239)	0.010 (0.332)	-0.027 (-0.977)	0.558	0.555	150.281
Miscellaneous goods and services	0.288* (5.786)	0.067 (1.731)	-0.010 (-0.260)	-0.033 (-0.852)	0.157	0.150	22.160
Total Non-food expenditure	**0.873* (38.397)**	**0.023 (1.308)**	**-0.008 (-0.442)**	**-0.014 (-0.801)**	**0.824**	**0.823**	**556.635**

Source: Computed from primary data,
Figures in the parentheses indicate 't' values.
**Indicates that the co-efficient are significant at five percent level.*

Similarly, it is found that the magnitude of household debt elasticity is higher in hygienic and toilet items, followed by housing and the lowest is in miscellaneous goods and services. It is also observed that household debt elasticity is negative for all items of expenditure on non-food except petrol-diesel, newspaper and periodical and social obligation. The negative household debt elasticity reveals that an increase in household debt results in the reduction of household consumption expenditure for that non-food items whereas positive elasticity reveals that increase in debt results leads to an increase in expenditure as household debt increases the disposable income of the household at one particular moment.

It is also observed that the magnitude of locational distance of the kerosene is the highest is followed by electrical bill and the lowest on cosmetics. Household distance elasticity is also positive for the items of expenditure on housing, education, electrical bill, mobile or telephone bills, kerosene, hygienic and toilet item, entertainment, newspaper and periodicals, indicating that the locational distance of the household from the market increases the consumption expenditures on these items whereas it is negative for items such as firewood, cosmetics, transportation etc. This reveals that increase in the locational distance of the household decreases the household consumption expenditure on these non-food items.

The study of the impact of income, household size, household debt and locational distance elasticity of the household on overalls consumption expenditures of non-food items show that while the income elasticity has a positive and significance influence on the consumption of various non-food items, the household size, household debt and locational distance elasticity on the other has a positive but insignificant impact the consumption expenditures of non-food items.

(iii) Interpretation of regression analysis on Semi-durable items

It found that households made expenditure on seven types of durables or semi-durable items. Therefore seven regression models are constructed and in each model the expenditure on particular item is a dependent variable and disposable income, household size, household debt and locational distance of household from the market are the independent variable.

It is evident from the table that the income elasticity of expenditure on cloths is 0.681, household size elasticity of expenditure is 0.134 and locational distance of the household from the market or town is 0.008. Whereas, household debt elasticity of expenditure on clothing is -0.007. This implies that other things remaining constant a one percent increase in disposable income leads to 0.681 percent increase in consumption expenditure on cloth. Similarly, keeping the disposable income, household debt and locational distance of the household constant, one percent increases in household size lead to 0.134 percent increase in the consumption expenditure of cloth and so is the case of household distance from the market centre or town. On the other hand, the household debt elasticity of expenditure on cloth is negative, which implies that other things remaining constant a one percent increase in household debt leads to 0.007 percent decrease in consumption expenditure on cloth. The value of R^2 is 0.619 which means that the explanatory or independent variables household disposable income, household size, household debt and locational distance of the household explain 61.9 percent of variations in the consumption expenditure on clothing. The 't' value indicates that disposable income and household size significantly influence in the consumption expenditure of cloth whereas household debt and locational distance of the household do not have a significant influence.

Regarding footwear, the table 6.16(C) shows that household consumption expenditure on footwear is positively influenced by household disposable income and household size i.e., 0.712 and 0.061 respectively. This implies that other things remaining constant one percent increase in household disposable income and household size increases the consumption expenditure on footwear by 0.712 percent and 0.061 percent respectively. On the other hand, household debt elasticity of footwear is -0.087 which implies that a one percent increase in household debt results 0.087 percent decline in the household's consumption expenditure on clothing and the locational distance of from market or urban centre is -0.035, indicating that increase in locational distance of the household from the urban centres or markets do not increases the consumers expenditure on clothing. The R^2 value shows that these factors represent only 54.2 percent fluctuations in the household consumption expenditures of footwear. The 't' value is significant at five percent level for household disposable income and household debt.

Table 6.16(C) *Impact of income, household size, household debt and locational distance elasticity on semi-durable items*

Item of expenditure (dependent variable)	Regression Coefficient				R^2	Adjusted R^2	F. Value
	β_1 (Income elasticity)	β_2 (Household size elasticity)	β_3 (household debt)	β_4 (Locational distance of household)			
Clothing	0.681* (20.443)	0.134* (5.142)	-0.007 (-0.244)	0.008 (0.326)	0.622	0.619	195.763
Footwear	0.712* (19.476)	0.061* (2.135)	-0.087* (-2.952)	-0.035 (-1.246)	0.545	0.542	142.525
Furniture	0.364* (7.265)	-0.018 (-0.452)	0.029 (0.724)	0.031 (0.813)	0.148	0.140	20.565
Utensils	0.450* (9.837)	0.066 (1.836)	-0.010 (-0.273)	0.053 (0.053)	0.289	0.283	48.279
Ornaments	0.390* (8.009)	-0.023 (-0.594)	0.100* (2.551)	0.023 (0.611)	0.194	0.187	28.513
Vehicles/motorcycle/bicycle	0.105 (1.946)	0.003 (0.081)	-0.003 (-0.064)	-0.031 (-0.755)	0.018	0.010	2.192
Audio-video	0.319* (6.317)	0.009 (0.216)	-0.041 (-0.993)	0.096* (2.456)	0.134	0.127	18.370
Total Semi-durable expenditure	**0.618* (15.752)**	**0.047 (1.521)**	**0.030 (0.960)**	**0.004 (0.141)**	**0.477**	**0.473**	**108.467**

Source: Computed from primary data
Figures in the parentheses indicate 't' values.
**Indicates that the coefficient is significant at five percent level.*

Likewise, the household consumption expenditure of furniture is positively influenced by income elasticity i.e., 0.364, household debt i.e., 0.029 and locational distance of the household i.e., 0.031. On the contrary, it is negatively influenced by household size i.e., -0.018. This signifies that with a one percent increase in household income and household debt results respectively an increase in household's expenditure on furniture by 0.364 percent and 0.029 percent. The positive locational distance elasticity of the household implies that with the increase in household locational distance the consumption expenditure on furniture increases

but opposite is the case that is when household size increases by one percent the consumption expenditure on furniture declines by 0.018 percent. The value of R^2 indicates that these factors represent 14 percent of the fluctuations in the household consumption expenditures of furniture. The't' value indicates that at five percent level household disposable income is the significant factor influencing the household consumption expenditure pattern of furniture items whereas the household size, household debt and locational distance of the household from market or town are not significant.

The analysis of household consumption expenditure on utensils shows that income elasticity of expenditure on utensils is 0.450, household size elasticity is 0.066 and locational distance elasticity of the household is 0.053 and household debt elasticity of expenditure is -0.010. The positive elasticity implies that a one percent increase in household income and household size results 0.450 percent and 0.066 percent increase in household consumption expenditure on utensils. The increase in locational distance of the household from urban centres or markets increases the consumption expenditure of the household on utensils. But one percent increase in household debt leads to a 0.010 percent decline in the consumption expenditure on utensils. The R^2 value indicates that these factors represent 28.3 percent of the fluctuations in the household consumption expenditures of utensils. The't' value indicates that at five percent level household disposable income is the significant factor influencing the household consumption expenditure of utensils whereas the household size, household debt and the locational distance of the household from the market or town are not significant.

Like this, expenditure on ornaments is positively influenced by household disposable income (0.390), household debt (0.100), the locational distance of the household (0.023) on the other hand, negatively influenced by household size (-0.023). This implies that one percent increase in household disposable income and household debt respectively results 0.390 percent and 0.100 percent increase in the household's consumption expenditure on ornaments. The locational distance of the households states that with the increase in locational distance of household from urban centres or markets, the household's expenditures on ornaments increases. On the contrary, one percent increases in household size results 0.023 percent decrease in household consumption expenditure on same. The R^2 value states that 18.7

percent of the fluctuations in the household consumption expenditures on ornament are influenced by these factors. The 't' value indicates that at five percent level household disposable income is the significant factor influencing the household consumption expenditure pattern of ornaments whereas the household size, household debt and the locational distance of the household from market or town are not significant.

Regarding, the household expenditure on vehicles or motorcycle or bicycle, it is observed that the household spend more on this item along with the increase in household disposable income and decreases with the increase in household debt and locational disadvantages. The income elasticity of expenditure on this item is 0.105, and household size elasticity is 0.003, on the other hand, household debt elasticity is -0.003 and locational distance elasticity is -0.031. This points out that one percent increase in disposable income leads to 0.105 percent increase in household's consumption expenditures on vehicles or motorcycle or bicycle, one percent increase in household size leads to 0.003 percent increase in household's consumption expenditures on vehicles or motorcycle or bicycle. On the other hand, one percent increase in household debt leads to 0.003 percent decline in household's consumption expenditures on vehicles or motorcycle or bicycle. The locational distance of the household from urban centres or markets states that an increase locational distance do not lead to increase in the household's consumption expenditures on vehicles or motorcycle or bicycle. The value of R^2 exhibits that only one percent of the fluctuations in the household consumption expenditure on vehicles or motorcycle or bicycle are influenced by these factors. The 't' value indicates that at five percent level household disposable income is the only significant factor influencing the household consumption expenditure of this item.

The household expenditure on audio-video reveals that income elasticity is 0.319, household size elasticity is 0.009 and the locational distance elasticity is 0.096 whereas household debt elasticity is -0.04. This reveals that one percent increase in household disposable income leads to 0.319 percent increase in household's consumption expenditures on audio-videos, one percent increase in household size results 0.009 percent increase in household's consumption expenditures on audio-videos. The locational distance of the household from urban centres or markets reveals that an increase its distance leads to an increase in the

household's consumption expenditures on audio-videos. On the other hand, one percent increase in household debt leads to 0.04 percent decline in household's consumption expenditures on audio-videos. The value of R^2 exhibits that only 12.7 percent of the fluctuations in the household consumption expenditures on audio-videos are explained by these factors. The 't' value indicates that at five percent level household disposable income and the locational distance of a household is significant.

However, for the broad groups of semi-durable item of household consumption expenditure the table 6.16(C) shows that household consumption expenditure on semi-durable items is positively influenced by household disposable income (i.e. 0.618) and household size (i.e. 0.047), household debt (i.e. 0.030) and locational distance (i.e. 0.004) of the household. This reveals that along with the increase in household income, size of the household, household debt and locational distance the consumption expenditure of semi-durable increases and vice versa. The value of R^2 reveals that a 47.3 percent fluctuation in the household consumption expenditures of of semi-durable is influenced by these factors. The 't' value states that the impact of income and household size elasticity on the overalls consumption expenditures of semi-durable items indicate that the income elasticity has a positive and significant influence on the consumption of various semi-durables items, whereas although the household size elasticity, household debt and the locational distance has positive influence on the consumption expenditures of semi-durables items yet these do not significantly influence the consumption expenditures of semi-durable items.

Again, from the table 6.16(C) it is brought to notice that among the semi-durable items the magnitude of income elasticity of expenditure on cloth is greater and is followed by footwear. Whereas, the magnitude of income elasticity of expenditure on vehicle or motorcycle or bicycle is the lowest. Moreover, since the income elasticity of expenditure of each on semi-durable is positive and less than one the consumption expenditure on each item increases along with the increase in income but the increase in expenditure is less than the increase in income.

Likewise, the magnitude of household size elasticity of consumption expenditure is also highest on cloth and followed by footwear. On the other hand,

the lowest is on vehicle or motorcycle or bicycle. It is found that the increase in household size lead to decrease in the household expenditure on furniture and ornaments as household size elasticity is negative. Whereas, for other semi-durable goods increase in household size is accompanied by an increase in consumption expenditures.

Regarding, household debt, it is found that the magnitude of household debt elasticity is higher on footwear and followed by ornaments. The lowest change is found on vehicle or motorcycle or bicycle. The household debt elasticity reveals that the household consumption expenditure on cloth, footwear, utensils, vehicles, audio-video goes on declining so far as household debt goes up whereas , the expenditure on furniture and ornaments increases.

The magnitude of change in audio-video is higher than other semi-durable items and that of utensils is the lowest. Household distance elasticity is positive on cloth, furniture, utensils, ornaments and audio-video which indicates that locational distance of the household from the market or urban centre increases the consumption expenditures on these items whereas negative for footwear and vehicle or motorcycle or bicycle implying that the locational distance of the household from the market decreases the household consumption expenditure on these items.

It can be concluded from the table that among the non- food items the impact of income elasticity, household size elasticity, household debt elasticity and locational distance elasticity of the household on the consumption expenditure of all items is less than one. That means keeping the other factors constant, the changes in household consumption expenditure is less than the proportionate change in all these factors influencing the household consumption pattern. This clearly shows the implication of the Keynesian psychological law of consumption in the study area.

6.16 Chapter Summary

In the study area many households receive low income with which they may not be able to make the payment for different types of food, non-food and semi-durable items for consumption. There is a general tendency on the part of lower income class to spend more than their income. The household in the rural area meet

the consumption expenditure over their income by borrowing or by the sale of assets that they already possess.

The item-wise average annual consumption expenditure shows that among the different food items the expenditure on egg, fish and meat is the highest and is followed by vegetables. On the other hand, the average annual expenditure on salt and spices is the lowest. In rural areas the expenditure on certain items tends to be low because most of the people in rural areas produce domestically sufficient quantity of certain items.

The average annual expenditure on non-food items is the highest in education and is followed entertainment and lowest in Kerosene. The rise in educational expenditure in rural areas could be due to rising awareness among the guardians regarding quality education which could also be due to inevitable role played by different social organizations among the Bodos.

There is an alarming rise in entertainment expenditure in rural areas. Most of the rise in entertainment expenditure is due the addiction of liquor of adult males member of the household and prevalence of certain activities like teer gambling, dice and other related games where money is directly used. In rural areas since there are no other alternatives places and ways for entertainment people are generally involved in celebrating different types of puja for long days and in such celebration people treat gambling as an element of entertainment along with others.

In case of semi-durable the average annual expenditure on clothing is the highest and is followed by ornament. In this segment, the average annual consumption expenditure on audio-video is lowest in rank. This is an indicator of rising standard of living.

The study finds significant differences among the APL and BPL socio-economic categories of household in the field of the consumption expenditure pattern of different food and non-food and semi-durable items. While APL category of households spent lion share of their income on various non-food and semi-durables items, the BPL category of household spent a major part of their income on consumption of different food items. This shows that with lower MPCE the households spent more on consumption of food while households with higher

MPCE have spent more on consumption of non-food items. However, expenditures on some semi-durables goods remained more or less stagnant for the households of across the MPCE classes.

The deciles group analysis on the basis of monthly consumption expenditures indicates that the top 50% of households shared 78.66% of the total monthly consumption expenditure whereas the bottom 50% of the decile group shared 21.34% of the total monthly consumption expenditure. Thus, the prevalence of high level of inequalities in the distribution of consumption expenditure among the households has been noticed from the study.

The test of income elasticity, household size elasticity, household debt and locational distance of the household states that income elasticity of consumption expenditure except kerosene is positive for both food and non-food and semi-durable but less than one for all items of expenditure. This implies that other things remaining constant, when the disposable income of the household increases the consumption expenditure on these items increase.

The household size elasticity is found positive for foods like cereals and substitutes, pulses and pulse products, edible oils, vegetables, egg, fish &meat, salt and spices, sugar and sugar products, beverages and refreshments and negative for milk and milk products, fruits and nuts and for non-food items like housing education, electricity bill, mobile bill, firewood, kerosene, hygienic, cosmetic and transport items and negative for petrol & diesel, health care, entertainment, news paper and periodicals, social obligations and miscellaneous items. In respect of semi durable, positive household size elasticity is observed for cloth, footwear, furniture, utensils, bicycle/motorcycle/vehicles, audio-videos and negative for furniture and ornaments etc.

Likewise, household debt elasticity has negative impact on the consumption expenditures of all food items, whereas positive for the non-food items - education, news paper and periodicals and social obligations. Similarly, positive for semi-durable items furniture and ornaments. For the rest of all other items of non-food and semi-durable household debt elasticity has negative impact on household consumption expenditure.

Similarly, the locational distance of the household from the market place or town has positive impact on the household consumption expenditure of milk and milk products, egg, fish &meat. salt and spices, beverages and refreshments and negative impact on cereals and substitutes, pulse and pulse products, edible oils, vegetables, sugar and sugar products and fruits and nuts. Likewise, it has positive impact on non-food items like housing, education, electricity bill, mobile bill, kerosene, entertainment, news paper and periodicals, hygienic and toilet items. On the other hand, it has negative impact on firewood, petrol and diesel, health care, cosmetic, transportation, social obligations and miscellaneous products. In respect of semi-durable, positive locational elasticity of the village or household is observed for the items of cloth, furniture, utensils, vehicle or motorcycle or bicycle, audio-videos and whereas negative elasticity is observed in case of furniture and ornaments etc.

However, it is observed from the study that, the overalls impact of income, household size has a positive and significant impact on household consumption expenditure of food items. On the contrary, household debt elasticity has a negative and significant impact the consumption expenditure of food items. Likewise, the locational distance of the household from the town or market has a negative and insignificant impact on same.

Likewise, it is observed that the income elasticity has positive and significant impact on the consumption expenditure of non-food items, whereas the household size has a positive but insignificant impact on same. Likewise, the household debt and locational distance of the household has a negative and insignificant impact on the household consumption expenditure of non-food items..

Regarding, the overall household consumption expenditure on semi-durables, disposable income of the household has positive and significant impact on the other hand, the household size, household debt and locational distance of the has positive but insignificant impact on the household consumption of semi-durable.

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