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An Empirical Analysis of the Distribution of Consumption Expenditure among Farmers in Cotton Belt of Rural Punjab

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Abstract

The consumption of goods and services is a primary component of economic wellbeing. An average farmer household spent ₹115555 on food items, while the spending on non-food items amounted to ₹317295. The marginal farmer households allocated a considerable proportion of 37.61 per cent on food items, whereas this proportion decreased to 21.19 per cent among the large farmer households. On the other hand, the consumption expenditure made on non-food was 62.39 per cent among the marginal category households, while the share rose to 78.81 per cent among the large farm-size categories. The highest APC was found among the marginal farm-size category. The bottom 20 per cent of households of all the farm-size categories taken together appropriated only 7.14 per cent, whereas the top 20 per cent appropriated 44.11 per cent of the total average consumption expenditure. The distribution of per household as well as per capita consumption expenditure was highly skewed among the different farm-size categories.

Keywords

Consumption Expenditure, Non-food items, APC, Farmer households, Inequality.

JEL Codes : D12, Q11, Q12,

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1. Introduction

Adam Smith stated "Consumption is the sole end and purpose of all production and the interest of the producer ought to be attended to, only so far as it may be necessary for promoting that of the consumer." Consumption expenditure is the value of consumption goods and services used or paid for by a household to directly meet its needs (OECD, 2013). Consumption is an integral part of all living human beings who nourish and sustain their lives (Pradhan, 2012; Basumatary, 2015). The mental and physical health of a person depends on his consumption pattern to a large extent (Devi, 2017). The consumption of goods and services is a primary component of economic wellbeing, and the standard of living of a household can be understood from the consumption pattern (OECD, 2013; Pradhan, 2012). Everything else being equal, a person with a higher level of consumption is regarded as having a higher level of economic wellbeing. A household is considered poor if its consumption level is below the poverty norm. In India, the welfare profile is usually measured using the consumption expenditure of the households because income represents potential but not actual consumption (NABARD, 2018).

However, human wants are scarce and dynamic, which gives consumption a dynamic character. Variations in consumption can be seen among different societies as well as individuals based on differences in environmental, social, economic, and cultural contexts. Per capita income, the standard of living, and the level of consumption are the main determinants of the economic status of a society. While the increase in per capita income and per capita consumption expenditure are some of the macro-level indicators of development, the distribution of household expenditure is a micro-level indicator (Basumatary, 2015). Ghosal (2014) observed that the consumption pattern of any individual is influenced by many factors like price of the commodity, the relative prices of the

commodities, the level of income, tastes and preferences of the individuals, geographic and climatic condition of the society where the individual lives, nature of the occupation of individual, and also by some structural factors like degree of urbanization, the distribution pattern of income, level of infrastructure like marketing, roads, the role of media, etc. Any change in these factors over time will bring about noticeable changes in the consumption pattern of society.

Economic development is usually accompanied by improvements in a country's food supply and the gradual elimination of dietary deficiencies, thus improving the overall nutritional status of the country's population (WHO, 2003). The analysis of consumption patterns of households growing food crops is of particular interest to agricultural policy-makers. Because the changes in agricultural price policy affect farm income, which alters the household consumption of commodities produced and the demand for other consumer goods supplied by the non-farm sector (Farooq et al., 1999). Income, prices, individual preferences and beliefs, cultural traditions, and geographical, environmental, social, and economic factors all intersect in a complex manner to shape the dietary consumption patterns (WHO, 2003). Analyzing consumption patterns over time would help design appropriate policies related to food production and its distribution (Devi, 2017).

The standard of living of any household or any person can be understood from the levels and patterns of consumption expenditure as well as the qualities of the consumption budget. The food consumption pattern of a household is an essential barometer of individual welfare and wellbeing in any region. Consumption contributes to human development when it enlarges the capabilities and enriches people's lives without adversely affecting the wellbeing of others (Pradhan, 2012).

One can meet consumption needs either through the spending of income, through the running down of wealth, or through borrowings. The existing literature on levels and patterns of consumption expenditure among the farmers in Punjab indicated that the family consumption expenditure of a farmer household is mainly influenced by the ownership of assets, level of income, education of the farmers, and size of the family. Punjab is an agricultural developed State of the country and a star performer during the heydays of the green revolution. Agriculture has always been an essential source of livelihood, and farm business income is the prominent income source

for the State's farmer households. However, over time, increased cost of farm inputs such as seeds, fertilizers, pesticides, etc., and higher labour wages have led to an increase in the cost of production, thereby squeezing farmers' income.

In the present era, farm income is not only low and decelerating; it is highly unequal among different categories of farm households. The income of the large and medium farmers is relatively higher than the income of the marginal and small farmers. On the other side, the consumption expenditure has been increased beyond the farmers' pockets. As a result, there are wide variations in the food as well as non-food consumption expenditure in different categories of farmer households. The farmers with marginal and small holdings are unable to meet the essential demands of education, health, and other basic needs of the family (Government of Punjab, 2013; Chakravorty et al., 2019). To deal with the income-consumption gap, which is developed due to shortages of income levels and rising consumption expenditure, farmers have to incur debt.

Therefore, it is important to study the consumption expenditure pattern of farmer households in the cotton belt of rural Punjab, which suffered substantial income losses due to repeated cotton crop failure in the last decade which will help understand the standard of living of the farmer households.

2. Objectives of the Study

The present paper is based on the following specific objectives:

1. To study the levels and pattern of consumption among farmer households;
2. To study the inequality in the distribution of consumption among farmer households; and
3. To suggest policy measures to improve the standard of living of farmer households in the cotton belt of rural Punjab.

3. Data Sources and Methodology

Both primary and secondary data has been used in the present study. Secondary data has been collected from various journals, books, magazines, reports, dissertations, theses, web-sites, etc. Primary data has been collected through a well-structured schedule from selected farmer households using a multi-stage stratified random sampling technique for the period 2016-17. *Firstly*, four

districts, Mansa, Bathinda, Sri Mukatsar Sahib, and Fazilka, have been selected purposely out of 9 districts of the cotton belt of rural Punjab. *Secondly*, all 23 developmental blocks of the selected districts have been chosen for the sample. *Thirdly*, one village from each block has been picked up for the study. *Fourthly*, out of the total number of the farmer households of different categories found in each selected village, 10 percent of the farmer households from each category and of each village were randomly selected. In this way, 520 sampled farmer households of different farm-size categories consisting of 118 marginal, 126 small, 134 semi-medium, 115 medium, and 27 large have been selected for the survey purpose. *Finally*, descriptive statistical tools such as averages, percentages, Gini coefficients, etc., have been used to analyze the results of the present study.

4. Results and Discussion

This section deals with the average consumption expenditure, per capita consumption expenditure, average propensity to consume and distribution of the consumption expenditure among farmers in the cotton belt of the rural Punjab.

4.1 Average Consumption Expenditure of Sampled Farmer Households

The mean values of per annum consumption expenditure are given in Table-1. The data highlights that the annual consumption expenditure of an average farmer household was ₹432850. An average family of a marginal farmer household spent as much as ₹170150 annually. In contrast, the consumption expenditure for the small, semi-medium, medium and large farmer households had been recorded at ₹277293, ₹402179, ₹764941, and ₹1077951, respectively. The consumption expenditure showed an increasing trend with the size of the farm. The consumption expenditure of the large farmer households was 6.34, 3.89, 2.68, and 1.41 times higher than that of the marginal, small, semi-medium, and medium farmer households, respectively.

Out of the total consumption expenditure, an average farmer household spent ₹115555 on food items, while the spending on non-food items amounted to ₹317295. However, there were considerable differences in consumption expenditure levels across different farm-size categories in the cotton belt area of rural Punjab. The perusal of Table-1 showed that in absolute terms, the

consumption expenditure on both food as well as non-food items was the highest among the large farmer households. In contrast, these expenditures were the lowest among the marginal farmer households. However, if we look at the relative terms, the marginal farmer households allocated a considerable proportion of 37.61 percent to food items. In contrast, the respective proportions decreased to 30.82, 28.44, 23.05, and 21.19 per cent among the small, semi-medium, medium, and large farmer households. On the other hand, the consumption expenditure made on non-food was 62.39 per cent among the marginal category households. At the same time, the share rose to 69.18, 71.56, 76.95, and 78.81 per cent among the above-mentioned respective categories.

Table-1 : Per Household Consumption Expenditure of Farmer Households

(Mean Values in ₹ Per Annum)

Consumption Components	Marginal	Small	Semi-medium	Medium	Large	All Sampled Households
Food Items						
Cereals	13781 (8.10)	15129 (5.46)	17578 (4.37)	2174 (2.84)	28694 (2.66)	17622 (4.07)
Pulses	5136 (3.02)	5638 (2.03)	6269 (1.56)	7635 (1.00)	10292 (0.95)	6370 (1.47)
Vegetables	5136 (3.02)	6766 (2.44)	9506 (2.36)	12859 (1.68)	16611 (1.54)	8961 (2.07)
Fresh & dry Fruits	952 (0.56)	2895 (1.04)	5458 (1.36)	19037 (2.49)	25526 (2.37)	7860 (1.82)
Milk & Milk products	23907 (14.05)	36317 (13.10)	51877 (12.90)	75865 (9.92)	95981 (8.90)	49355 (11.40)
Edible Oils	2354 (1.38)	2960 (1.07)	3927 (0.98)	7126 (0.93)	9714 (0.90)	4344 (1.00)
Sugar & Jaggery	4718 (2.77)	5378 (1.94)	6145 (1.53)	8206 (1.07)	10536 (0.98)	6319 (1.46)
Condiments & Spices	3253 (1.91)	3853 (1.39)	4535 (1.13)	6968 (0.91)	8667 (0.80)	4831 (1.12)
Meat, Fish, Egg	373 (0.22)	619 (0.22)	1105 (0.27)	1997 (0.26)	3033 (0.28)	1118 (0.26)
Beverages, Refreshments, etc.	4385 (2.58)	5920 (2.14)	7969 (1.98)	14851 (1.94)	19412 (1.80)	8775 (2.03)
Sub-total (Food Items)	63993 (37.61)	85476 (30.82)	114369 (28.44)	176291 (23.05)	228466 (21.19)	115555 (26.70)

Non-food Items						
Intoxicants	5313 (3.12)	5927 (2.14)	8743 (2.17)	9828 (1.28)	8704 (0.81)	7520 (1.74)
Fuel & Light	21598 (12.69)	23782 (8.58)	26258 (6.53)	40903 (5.35)	51322 (4.76)	29141 (6.73)
Mobile & Internet Bills	1591 (0.93)	1883 (0.68)	2337 (0.58)	7366 (0.96)	10991 (1.02)	3619 (0.84)
Clothing & Footwear	6587 (3.87)	12401 (4.47)	20285 (5.04)	45457 (5.94)	58037 (5.38)	22793 (5.27)
Washing & Toilet Articles	4630 (2.72)	5557 (2.00)	6870 (1.71)	11167 (1.46)	15493 (1.44)	7442 (1.72)
House Construction/ addition of rooms & major repairs	11780 (6.92)	40294 (14.53)	69231 (17.21)	95000 (12.42)	216667 (20.10)	59854 (13.83)
Household Transport Vehicles	2011 (1.18)	3434 (1.24)	7752 (1.93)	7713 (1.01)	29593 (2.75)	6528 (1.51)
Durable Goods	3041 (1.79)	5264 (1.90)	7802 (1.94)	55827 (7.30)	83161 (7.71)	20641 (4.77)
Education	9213 (5.41)	18730 (6.75)	28276 (7.03)	93843 (12.27)	112963 (10.48)	4059 1(9.38)
Medical	12436 (7.31)	20849 (7.52)	29507 (7.34)	41704 (5.45)	51111 (4.74)	27343 (6.32)
Conveyance	4339 (2.55)	8494 (3.06)	12612 (3.14)	20965 (2.74)	29000 (2.69)	13343 (3.08)
Marriage & Socio-religious Ceremonies	22805 (13.40)	43184 (15.57)	65026 (16.17)	151052 (19.75)	172741 (16.02)	74771 (17.27)
Others*	814 (0.48)	2018 (0.73)	3109 (0.77)	7824 (1.02)	9704 (0.90)	3709 (0.86)
Sub-total (Non-food Items)	106157 (62.39)	191818 (69.18)	287810 (71.56)	588650 (76.95)	849485 (78.81)	317295 (73.30)
Grand Total	170150 (100.00)	277293 (100.00)	402179 (100.00)	764941 (100.00)	1077951 (100.00)	432850 (100.00)

Source : Field Survey, 2016-17.

*includes entertainment, services of tailoring, beauty parlour, etc.

Among the food items, milk and milk products were the first essential component and an average farming household spent 11.40 per cent of the total consumption expenditure on this item. On the hand, cereals were the second most crucial non-durable item for the farmer household; they accounted for 4.07 per cent of the total consumption expenditure. This result of the study was in accordance with the findings of Farooq et al. (1999), Kaur et al. (2016), Singh et al. (2019), and Kaur et al. (2023). However, the same result opposed by

the findings of the studies of Sharma (1997) on the pattern of consumption expenditure of tribal and non-tribal farmer households in Himachal Pradesh and Devi (2017) on the pattern of consumption expenditure of rural households in Haryana, which stated that in the food consumption items, cereals had the highest share of expenditure followed by milk and milk products.

A marginal farmer household spent ₹23907 on milk and milk products, while the spending by the small, semi-medium, medium, and large farm-size categories rose to ₹36317, ₹51877, ₹75865, and ₹95981, respectively. However, in proportionate terms, the consumption expenditure on milk and milk products among the marginal, small, semi-medium, medium, and large farmer households were 14.05, 13.10, 12.90, 9.92, and 8.90 percent, respectively. Similarly, the marginal farmer household spent ₹18916 on cereals and pulses, and expenditure increased to ₹20767, ₹23847, ₹29383, and ₹38986 among the small, semi-medium, medium, and large farmer households, respectively. The consumption expenditure on cereals and pulses in proportionate terms was 11.12 for marginal farmer households, followed by 7.38, 5.93, 3.84, and 3.62 among the small, semi-medium, medium and large farmer households. It revealed that milk and milk products and cereals and pulses have a positive relationship with the size of the farm in absolute terms. In contrast, in relative terms, these components were negatively related to the size of farm holdings.

An average farmer household incurred expenses of ₹8961 on vegetables and ₹7860 on fresh and dry fruits annually. The share for the respective items was 2.07 and 1.82 per cent of the total consumption expenditure. The percentage of consumption expenditure allocated to vegetables decreased along with the size of farm holdings. In contrast, the share of fresh and dry fruits increased with increased farm size except for the large farmer households. Similarly, the share of expenditure incurred on edible oils, sugar & jaggery, condiments & spices, beverages, refreshments, etc., decreased as the size of the farm rose. However, the share of expenditure incurred on meat, fish, and eggs increased directly with the size of the farm. The result of the study was as per the findings of Sharma and Jain (2011). Their study revealed that the share of expenditure allocated to food tended to decline as income increased. Still, the composition of food expenditure also changed as households devoted a smaller percentage of the food expenditure to

grains and other starchy staples and a larger share towards milk, egg, fish, meat, fruits, vegetables, and processed and prepared foods.

Among non-food items, the most considerable amount of ₹74771 was incurred on marriages and socio-religious ceremonies, which accounted for 17.27 per cent of the consumption expenditure. Following articles in order of importance were house construction or addition of rooms and major repairs, education, fuel & light, medical, clothing & footwear, and durable goods for which an average farmer household allocated ₹59854, ₹40591, ₹29141, ₹27343, ₹22793, and ₹20641, respectively. The proportionate share of respective items was 13.83, 9.38, 6.73, 6.32, 5.27, and 4.77 per cent. While, expenditure on mobile and internet bills, household transport vehicles, washing and toilet articles, intoxicants, conveyance, and others ranged between 0.84 to 3.08 per cent. The percentage share of expenditure on items such as house construction or addition of rooms and major repairs, household transport vehicles, and durable goods exhibited a positive relationship with the size of farm holdings. The expenses share of ₹40591 was spent on education by an average farmer household. An absolute expenditure on education was the highest (₹112963) among the large farmer households and the lowest (₹9213) among the marginal farmer households. A similar pattern was observed in the studies by National Sample Survey Office (2005), National Sample Survey Office (2014) and Singh et al. (2018). At the same time, the percentage share spent on education was the highest (12.27 per cent) among the medium farmer households and the least (5.41 per cent) among the marginal farmer households. However, the share of medical expenditure was higher among the marginal and small farming households and lower among the larger farm-size categories. The percentage of spending on intoxicants, fuel & light, and washing and toilet articles exhibited inverse relationship with the size of the farm.

The study presented similar results as Singh et al. (2019), which highlighted that the consumption expenditure on non-durables, durables, services, marriages, and other socio-religious ceremonies tended to increase from the marginal farmers to large farmers. The above analysis apparently connoted the results to the Engle's law of consumption, according to which as income increased, the proportion of expenditure incurred on food fell, even if the absolute expenditure on food rose up. The present study clearly picturised the

scene that as farm size increased, the proportion of consumption expenditure on food items fell. Though, absolute spending on food consumption was found to be increased with the increase in the size of farm holdings. On the other hand, the consumption expenditure on non-food items increased with the size of farm holdings both in absolute and relative terms. The studies conducted by Phulke and Maske (1990), Thakur and Singh (2006), Kaur et al. (2015), Kaur et al. (2016), and Hamsa and Umesh (2020) were also as per the findings of the study. Phulke and Maske (1990) found out that as income increased, the percentage expenditure on food items decreased while the percentage expenditure on recreation, travelling, festival, and social function increased with an increase in income. According to Kaur et al. (2015), as the family's income levels increased, the proportion of income spent on subsistence declined, while the amount spent on comforts and luxuries like clothing, education, traveling, etc., increased. Hamsa and Umesh (2020) observed that percentage of spending on various items varied with the category of farmers. With the increase in income, there was an increase in expenditure on non-food items. The present study also noticed a similar consumption pattern, having a subsistence nature, among the marginal, small, semi-medium, and medium farmer households as they had a higher share of consumption expenses on food items. However, the medium and large farmer households' consumption pattern was somewhat different as they spent more on durables and luxuries. The consumption pattern of large farmer households, incurring the maximum spending on almost all the items of consumption, indicated that land ownership was a significant factor determining the levels of living of the farmer households.

4.2 Per Capita Consumption Expenditure of Farmer Households

Due to the variations in the average size of the family among the different farm-size categories, it became necessary to look into the levels of per capita consumption expenditure of different farm-size groups. The average size of the family was 4.57 in the case of the marginal farmer households, whereas it was 4.97, 5.58, 6.13, and 7.43 among the small, semi-medium, medium, and large farmer households, respectively. The average size of the family was found to be 5.74 when all sampled farmer households were taken together.

Table-2 represents the per capita consumption expenditure of farmer households per annum on next page.

Table-2 : Per Capita Consumption Expenditure of Farmer Households
(Mean Values in ₹ Per Annum)

Consumption Components	Marginal	Small	Semi-medium	Medium	Large	All Sampled Households
Food Items						
Cereals	3015	3044	3150	3548	3862	3070
Pulses	1124	1134	1123	1245	1385	1110
Vegetables	1124	1361	1704	2098	2236	1561
Fresh & dry Fruits	208	583	978	3105	3436	1369
Milk & Milk products	5231	7307	9297	12376	12918	8598
Edible Oils	515	596	704	1162	1307	757
Sugar & Jaggery	1032	1082	1101	1339	1418	1101
Condiments & Spices	712	775	813	1137	1166	842
Meat, Fish, Egg	82	125	198	326	408	195
Beverages, Refreshments, etc.	960	1191	1428	2423	2613	1529
Sub-total (Food Items)	14003	17198	20496	28759	30749	20132
Non-food Items						
Intoxicants	1163	1193	1567	1603	1171	1310
Fuel & Light	4726	4785	4706	6673	6907	5077
Mobile & Internet Bills	348	379	419	1202	1479	630
Clothing & Footwear	1441	2495	3635	7415	7811	3971
Washing & Toilet Articles	1013	1118	1231	1822	2085	1296
House Construction/ addition of rooms & major repairs	2578	8107	12407	15498	29161	10427
Household Transport Vehicles	440	691	1389	1258	3983	1137
Durable Goods	665	1059	1398	9107	11193	3596
Education	2016	3769	5067	15309	15204	7072
Medical	2721	4195	5288	6803	6879	4764
Conveyance	949	1709	2260	3420	3903	2325
Marriage & Socio-religious Ceremonies	4990	8689	11653	24641	23249	13026
Others*	178	406	557	1276	1306	646
Sub-total (Non-food Items)	23229	38595	51579	96028	114332	55278
Grand Total	37232	55793	72075	124786	145081	75409

Source : Field Survey, 2016-17.

*includes entertainment, services of tailoring, beauty parlour, etc.

The data depicted in table-2 show that annual per capita consumption expenditure was found to be ₹75409. The per capita expenditure among the marginal farmer households was obtained as ₹37232 annually. In contrast, the small, semi-medium, medium, and large farmer households had been recorded per capita consumption expenditure amounting to ₹55793, ₹72075, ₹124786, and ₹145081, respectively. Furthermore, the per capita consumption expenditure showed an increasing trend with the size of the farm.

An average farmer household incurred per capita consumption expenditure amounting to ₹20132 on food items, whereas spending on non-food items amounted to ₹55278. There were wide variations in the per capita consumption expenditure of different farm-size categories. In the case of food items, the per capita consumption expenditure followed a positive relationship with the size of farm holdings. Food expenditure was the highest among the large farmer households, i.e., ₹30749, and the lowest, i.e., ₹14003, among the marginal farmer households. Among the food items, the highest per capita consumption expenditure was incurred on milk and milk products amounting to ₹8598, followed by ₹3070 on cereals, and so on. As far as different farm-size categories were concerned, the per capita consumption expenditure was similar for most of the food items. As we moved from the marginal to the large farm-size category, food expenditure rose up.

Among the non-food items, an average per capita consumption expenditure of ₹13026 was spent on marriages and socio-religious ceremonies, which was the highest for the large farmer households, i.e., ₹23249 and the lowest, i.e., ₹4990 for the marginal farmer household. An average amount of ₹10427 per capita was spent on house construction or addition of rooms, and major repairs by all the sampled farmer households. While the amount spent differentiated across the different farm-size categories, such as the marginal and the large farmer households, spent ₹2578 and ₹29161, respectively, on the same. An average amount of ₹7072 and ₹4764 was spent on education and medical, respectively. One could find a positive relationship between the per capita expenditure on these services and the size of the farm.

The patterns of both the per capita consumption expenditure and the household consumption expenditure were almost similar among the different farm-size categories. However, since the family size varied from one category to another, there were differences in the per

capita consumption expenditure and the per household consumption expenditure of the farmer households. The family size increased along with the increase in the size of farm holdings, so the consumption expenditure of the medium and large farm-size categories remained higher than the others. The per household consumption expenditure of the large farm-size categories was 6.34 times higher, and the per capita consumption expenditure of the larger farm-size categories was 3.90 times higher than that of the marginal farmer households.

4.3 Average Propensity to Consume of Farmer Households

An average propensity to consume is the percentage of income spent on consumption expenditure rather than saved. It is calculated by dividing the average consumption by the average income.

Table-3 : Average Propensity to Consume of Sampled Farmer Households

Farm-Size Categories	Average Consumption (AC)	Average Income (AY)	APC=AC/AY
Marginal	170150	124278	1.37
Small	277293	234314	1.18
Semi-medium	402179	355294	1.13
Medium	764941	758006	1.01
Large	1077951	1267604	0.85
All Sampled Farmer Households	432850	409988	1.06

Source : Field Survey, 2016-17.

Table 3 represents the average propensity to consume of the sampled farmer households. An average farmer household had an APC of 1.06. The marginal farmer households were found to have the highest APC of 1.37, and it declined as the farm size moved up. Only the large farmer households had an APC of less than one, which was 0.85. It indicated that all other farm-size categories had deficit income except the large farmer households. As a result, an average farmer household incurred a deficit of ₹22862 annually. The deficit was largest in case of the semi-medium farmer households of ₹46885, followed by ₹45872, ₹42979, and ₹6935 among the marginal, small, and medium farm-size categories respectively. However, the large farmer households had a surplus budget of ₹189652 per annum.

This result of the study was as per the findings of the Keynesian psychological law of consumption, according to which, as income

increases, the level of consumption increases but not as much as the increase in income. First, he suggested that consumption was a positive function of an absolute level of current income. Secondly, he pointed out that as income increased, the consumption expenditure also increased but not in the same proportion. Finally, he argued that the average propensity to consume fell as income increased. The same case was found in our study, which showed that APC fell as we moved up from the marginal farmer households to the large farmer households. The study by Singh (2013) also observed the similar findings.

4.4 Distribution of Consumption Expenditure of Sampled Farmer Households

Table-4 depicts per household distribution of consumption expenditure of the farmer households in the cotton belt of rural Punjab. The data reflected that the bottom 10 per cent of the farmer households accounted for only 3.09 per cent of the total consumption expenditure. In contrast, the upper 10 per cent of the sampled farmer households incurred 27.43 per cent of the total consumption expenditure. A similar kind of picture could be seen across different farm-size categories. Since, the bottom 20 per cent of the marginal farmer households claimed 10.69 per cent of the total consumption expenditure. In contrast, the corresponding figures for the small, semi-medium, medium, and large farmer households were 9.84, 10.61, 11.66, and 9.19 per cent, respectively. On the other hand, the figures for the top 20 per cent for respective categories were 42.14, 41.07, 38.76, 39.38, and 38.88 per cent, which indicated the vast disparities prevailed among the farmer households in the cotton belt of Punjab.

Table-4: Percentage Distribution of Consumption Expenditure of Farmer Households by Decile Groups

Decile Groups of Households (%)	Marginal	Small	Semi-medium	Medium	Large	All Sampled Farmer Households
0-10	4.91	4.61	4.99	5.79	3.25	3.09
10-20	5.78	5.23	5.62	5.87	5.94	4.05
20-30	5.90	6.45	6.20	6.81	7.09	4.79
30-40	7.00	6.79	7.43	6.81	6.10	5.85

40-50	7.62	8.15	7.63	7.98	9.83	6.54
50-60	8.22	8.81	8.86	7.84	10.28	8.26
60-70	9.12	8.71	9.57	9.19	10.81	10.80
70-80	9.31	10.18	10.94	10.33	7.82	12.51
80-90	12.99	11.82	13.50	14.91	15.67	16.68
90-100	29.15	29.25	25.26	24.47	23.21	27.43
Bottom 20%	10.69	9.84	10.61	11.66	9.19	7.14
Top 20%	42.14	41.07	38.76	39.38	38.88	44.11
Gini Coefficient	0.293	0.293	0.269	0.256	0.266	0.363

Source : Field Survey, 2016-17.

The Gini coefficient was the highest among the marginal and small farmer households; it was 0.293 for both the categories, whereas the Gini coefficient was the lowest among the medium farmer households, which is 0.256. It depicted that consumption inequality was one of the highest among the marginal and small farmer households. The Gini coefficient was found to be 0.363 among all the sampled farmer households, which indicated that the concentration of the consumption expenditure was higher than within the individual farm-size categories.

5. Conclusion

In a nutshell, the data highlights that there were wide variations in per household as well as per capita consumption expenditure among different farm-size categories. As farm size increased, the proportion of consumption expenditure on food items fell; on the other hand, the consumption expenditure on non-food items increased with the size of farm holdings. The study results were in corroboration with the Engle's law of consumption. The study noticed a subsistence consumption pattern among all the sampled farmer households except the large farmer households, who spent more on the non-food items. The consumption pattern of farmer households indicated that land ownership was a significant factor determining the levels of living of the farmer households. Also, per household distribution of consumption expenditure of the farmer households were highly unequal in the cotton belt of rural Punjab.

The above analysis indicated that the average annual income of farmer households was lower than their consumption expenditure and the value of average propensity to consume was greater than one

across all the sampled farm-size categories except for the large farm-size category in the cotton belt of rural areas of Punjab, so the public distribution system should be fairly implemented for all these categories. Thus, all the food items must be provided at subsidized prices in adequate quantity. If possible, it should be distributed free of cost among marginal, small, and semi-medium farmer households. Effective measures should be introduced to improve the efficiency of the public distribution system. Food prices have been increasing day by day, which has also emerged as one reason for higher consumption expenditure among farming households. It has been examined during the survey that the poor marginal and small farming households resorted to consuming fewer vegetables, fruits, and other nutritious items. In order to meet both ends met, poor farmers have to depend upon borrowings. Thus, the minimum support prices of the different crops and consumer price indices should be fixed in such a manner that enables farmers to meet their essential needs of food, shelter, clothing, education, healthcare, and a clean environment. The study highlighted that the farmer households spent a significant share of their consumption expenditure on education and health care. To reduce such expenditure, concessional education should be provided to all, and skill development training centers need to be inaugurated for helping the farming households. Along with this, proper health infrastructure should be developed in the rural areas, and free health insurance should be provided to the poor strata of the farming community.

References

- Basumatary, S., "An analysis of consumption expenditure pattern among the bodo tribe: A case study", *International Research Journal of Interdisciplinary & Multidisciplinary Studies*, 1(5), 2015, 42-48. <https://oaji.net/articles/2015/1707-1438675523.pdf>
- Chakravorty, S., Chandrasekhar, S., & Naraparaju, K., "Land distribution, income generation and inequality in India's agricultural sector", *Review of Income and Wealth*, 65(S1), 2019, S182-S203. <https://doi.org/10.1111/roiw.12434>
- Devi, R., "The pattern of consumption expenditure of rural households in Haryana: An Engel ratio analyses", *International Journal of Advanced Educational Research*, 2(5), 2017, 255-261.
- Farooq, U., Young, T., & Iqbal, M., "An Investigation into the farm households consumption patterns in Punjab, Pakistan", *The Pakistan Development Review*, 38 (3), 1999, 293-305. <https://www.jstor.org/stable/41260173>

- Ghosal, R., "Growth, inequality and diversification in consumption pattern in India - An empirical analysis", A paper prepared for IARIW 33rd General Conference, Rotterdam, Netherlands, 2014. <http://old.iariw.org/papers/2014/GhosalPaper.pdf>
- Government of Punjab, *Draft: Agriculture Policy for Punjab*. (2013). <https://punjab.gov.in/wp-content/uploads/2019/04/Agriculture-policy-of-punjab.pdf>
- Hamsa, K. R., & Umesh, K. B., "Income and expenditure of farm households: A micro perspective", *Current Journal of Applied Science and Technology*, 39(19), 2020, 147-159. <https://doi.org/10.9734/cjast/2020/v39i1930800>
- Kaur, A., Saran, S. K., & Kaur, A., "Income and consumption pattern of Punjab cultivators", *Journal of Krishi Vigyan*, 4(1), 2015, 44-50. DOI:10.5958/234 94433.2015.000 58.6
- Kaur, P., Singh, G., & Singh, S., "Levels, pattern and distribution of consumption expenditure among farmers in rural Punjab", *Indian Journal of Economics and Development*, 12(1), 2016, 103-112.
- Kaur, R., Anupama, Singh, J. S., & Singh, K. S., "Levels of consumption expenditure in rural non-farm households in Punjab", *Asian Review of Social Sciences*, 12(2), 2023, 44-52. DOI: <https://doi.org/10.51983/arss-2023.12.2.3624>
- NABARD, *NABARD All India Rural Financial Inclusion Survey 2016-17*, Mumbai : Department of Economic Analysis & Research, National Bank for Agriculture and Rural Development, 2018. https://www.nabard.org/auth/writereaddata/tender/1608180417NABARD-Repo-16_Web_P.pdf
- National Sample Survey Office, *Household Consumer Expenditure in India, January-June 2004*, NSS Report No. 505 (60/1.0/1), Ministry of Statistics and Programme Implementation, Government of India, 2005. http://164.100.161.63/sites/default/files/publication_reports/505_final.pdf
- National Sample Survey Office, *Level and pattern of consumer expenditure 2011-12*, NSS Report No. 555 (68/1.0/1), Ministry of Statistics and Programme Implementation, Government of India, 2014. http://164.100.161.63/sites/default/files/publication_reports/nss_rep_555.pdf
- OECD, "Household consumption", *OECD Framework for Statistics on the Distribution of Household Income, Consumption and Wealth*. Paris : OECD Publishing, 2013. <http://dx.doi.org/10.1787/9789264194830-8-en>
- Phuke, K. D. & Maske, S.V., "Consumption pattern of the farm families under Nigrudi Minor Irrigation Command Area", *Maharashtra Journal of Agricultural Economics*, 1990, 75- 78.
- Pradhan, H. K., *Patterns of consumption expenditure in rural household: A case study of selected villages of Sundargarh district of Odisha*, A Thesis Submitted for the Partial Fulfillment of Master Degree in

- Development Studies, Department of Humanities and Social Sciences, National Institute of Technology, Rourkela, Odisha, India, 2012. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2173047
- Singh A. K., "Income and livelihood issues of farmers: A field study in Uttar Pradesh", *Agricultural Economics Research Review*, 26 (Conference Number), 2013, 89-96.
- Singh, G., Anupama, Kaur, G., Kaur, R., & Kaur, S., "Levels, patterns and distribution of consumption expenditure of farmers and agricultural labourers in rural Punjab", *Social Change*, 49(3), 2019, 406-433.
- Singh, M., Singh, R. S., & Singh, K. P., "Consumption expenditure pattern of different sample size households", *International Journal of Current Microbiology and Applied Sciences*, Special Issue-7, 2018, 1456-1462. <http://www.ijcmas.com>
- Sharma, S. D., *Dimensions and Dynamics of Poverty in India*, New Delhi : Mohit Publications, 1997.
- Sharma, V.P., & Jain, D., "High value agriculture in India: Past trends and future prospects", IIMA Working Papers WP2011-07-02. Indian Institute of Management. Ahmedabad, India, 2011. <http://www.iimahd.ernet.in/assets/snippets/workingpaperpdf/21442132562011-0702.pdf>
- Thakur, D. S., & Singh, S., "Extent of absolute poverty among the different socio-economic groups in the rural areas of Himachal Pradesh: A nutrition and nutrition plus approach", *The Indian Journal of Economics*, LXXXVII(345), 2006, 317-338.
- WHO, *Global and Regional Food Consumption Patterns and Trends*, (2003). www.who.int/gsfao_global ★