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RESEARCH ARTICLE

DETERMINANTS OF EDUCATIONAL EXPENDITURE AMONG SCHEDULED CASTE FAMILIES IN MANNARKKAD TALUK, KERALA

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Abstract

Consumption patterns differ from people to people with respect to the income which they spend. The scheduled castes (SCs) and scheduled tribes (STs) are constitutionally identified as historically disadvantaged people. The paper examines the determinants of educational expenditure on education among scheduled caste families in Mannarkkad Taluk, Palakkad, Kerala. Here the expenditure pattern of the SC families and also the determinants of the educational expenditure among them are examined and analysed by using appropriate statistical tools.

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Introduction:-

Investment in education incurred two domains individual and institutional; together they constitute the social domain (Majumder 1985). Individual investment refers to the investment made by the student or parents on their education; hence it refers to the household or family investment in education. Institutional investment refers to public and properly defined government investment in education. Both public and household investment in education is highly significant. While a public investment can provide educational facilities, the only household investment will enable its utilization. The two are so interrelated and interdependent that, in the absence of either of these is likely to be under allocation of resources for education. (Panchamakhi 1989).

Education as consumption and investment consumption is the value of goods and services bought by the people. Individual buying acts are combined over time and space. Consumption patterns differ from people to people with respect to the income which they spent. The scheduled caste (SCs) and scheduled tribes (STs) officially recognized as historically disadvantaged people. For much of the period of British rule in Indian subcontinent they were known as the depressed classes. The people from scheduled castes are essentially the lowest part of Hindu society. Education is important for the personal, social and economic development of the nation. Education is important to live with happiness and prosperity. Education empowers minds that will be able to conceive good thoughts and ideas. Education enables a man to overcome the difficulties and guides him to fight the complexities of life.

Importance of the study:

Today Scheduled Castes are somewhat an enlightened lot but social inequalities still exist. Reforms and mechanisms exist for their upliftment and improving their condition though much work remains to be done to put them back into the mainstream society, and make them politically, socially and economically equal. There is a scarcity of good publication on the state of the Scheduled castes. Truly they have been marginalized as objects of our country rather than being treated as its subjects. In spite of forming a large proportion of the population they have just been

receiving minor reference in earlier studies. There are not many studies on the consumption statistics and patterns of Scheduled Castes at the macro level. This is because the National Sample Survey Organization (NSSO), which is the only official agency that collects such data for the whole country, does not generally publish data separately for Scheduled castes. Most of these studies are based on secondary data, like the Census, Reports of the Commission for SC/ST (1982). Most of the few economic studies on the Scheduled caste concentrate on their educational and occupational structure and deal with its effects on their welfare. While studies on the educational expenditure among SC families for various expenditure classes, and study on the consumption expenditure pattern for Scheduled Castes in rural and urban sectors were done in very rare cases. The study of educational expenditure of the SC family provides an important indicator of economic development. It will help to study the changes in consumption pattern of SC families in the study area of Mannarkkadaluk. It also helps to define the factors influencing educational expenditure and to analyse the consumption pattern of the SC families in the study area. The present study on the educational expenditure of SC families is done as a micro level study and here taking Mannarkkad municipality from Palakkad district as the study area. For analysing the educational expenditure of the SC families in the study area taking the following objectives.

Objectives:-

1. To examine the expenditure pattern of SC families in the study area.
2. To analyse the determinants of educational expenditure of the SC families in the area under consideration.

Methodology:-

To examine the different objectives of our present study, both primary and secondary data were used. Primary data have been collected through a sample survey using a pre-planned interview schedule. There are 50 samples are selected randomly from the study area for the smooth conduct of the study. Household is the unit of the study. The data were collected from one of the member of the family. In most cases the member was the Head of the household.

Statistical Tools Used:

To analyse the various objectives of the present study the basic statistical tools like averages, ratios, standard deviations, cross tabulation method, regression analysis, histogram, bar diagram and pie diagram etc. were used.

To find out the determinants of expenditure on education among SC family the study used linear regression model by taking expenditure on education as dependent variable and total income, size of the family income earned members, educational qualification of the respondents independent variable. The estimated function is given as follows.

$$\text{HEX} = \alpha + \beta_1 \text{income} + \beta_2 \text{family size} + \beta_3 \text{educational qualification} + \beta_4 \text{income earned members} + u$$

HEX refers to household expenditure on education, and β_1 , β_2 , β_3 and β_4 are the regression coefficient to be estimated that measures the extent to which various variables like income, family size, educational qualification and income earned by members influence the household expenditure on education and u the error term that is to be estimated by the equation. The regression coefficient β_1 , β_2 , β_3 and β_4 indicates the change in the levels of expenditures associated with a one-unit change in the independent variable of interest, ' α ' is the intercept term it gives the mean effect on the dependent variable of all the variables excluded for the model;

Definitions of the variable:

Variables	Description	Nature of variable
HEX	Household expenditure on education	Continuous variable
Income	Total income of the household	Continuous variable
Family size	Number of family members	Continuous variable
Educational qualification	Educational qualification of the respondent	Dummy variable Assigned value 1= SSLC and above education 0= below SSLC
Income earned members	Income earned members of the family	Contiguous variable

The secondary data's were collected from various books journals, NSSO report, economic review, census report etc. The concepts and definitions used in this study are the same as those followed by the National Sample Survey.

Review related studies:

Pradeep Kumar Choudhury(2019) examines the variability of household expenditure on higher education in rural Odisha (one of the backward states of India) and its relationship with individual, household and institutional factors. This chapter uses the data collected through a student survey in two tribal dominated districts of Odisha (Mayurbhanj and Keonjhar) in 2016–2017. In total 563 scheduled castes, scheduled tribe and other backward class students pursuing their undergraduate and postgraduate courses in 19 colleges are surveyed for the study. The findings suggest that the annual average household expenditure on higher education among marginalized sections of the society in rural Odisha is approximately 30% of the annual family income. Also, students enrolled in government and aided colleges have spent more than the students enrolled in unaided higher education institutions and interestingly; this difference is largely due to the difference in the payment of non-fee items such as private tuition, food and accommodation, transport, Internet, etc. On an average, students pay only about 5% of their total expenses in higher education as fees per year and rest on non-fee items. The pattern of household spending on higher education varies significantly between hostellers and day scholars. As expected, students belonging to poor households have invested less on higher education than the households with better income. Results also indicate pro-male bias in household spending on higher education in rural Odisha

Uma Kambhampati(2008) analyses whether the amount households spend on education depends upon the returns to education prevalent in the region in which they live. To this end, we estimated rates of return to education separately for boys and girls in 33 states and UTs in India. These rates of return were then included in our education expenditure model. Our results clearly indicated that the rate of return to education was highly significant in increasing the amount spent on education by the household both for boys and girls. However, we find that the impact of this variable is much larger at secondary level and for girls

Jandhyala B. G. Tilak(2002) examines the extent of household expenditure on education by different groups of population, the elasticity of household expenditure on education to changes in household income on the one hand and government expenditure on education on the other and the determinants of family expenditures on education. It has been found that there is nothing like 'free' education in India. Household expenditures on education are sizeable; households from even lower socio-economic background—Scheduled Castes/Tribes, low income groups—all spend considerable amounts on acquiring education, including specifically elementary education, which is expected to be provided free to all by the State. Important items of household expenditures consist of books, uniforms and fees. Even in the case of government primary and upper primary schools, students seem to be paying huge amounts of fees—examination and other fees. It is also found that households do not discriminate much against spending on girls' education; substantial differences exist in household expenditures between expenditure on children attending government schools, government-aided schools and private schools. Among the determinants of household expenditures, household characteristics—particularly household income and the educational level of the head of the household—are found to be important. Other important determinants include demographic burden of the household (size of the household), caste and religion. Generally, gender is believed to be a very significant determinant of household expenditures on education. This is not necessarily true in all cases. School related variables chosen—the incentives such as mid-day meals, uniforms, textbooks and stationery, etc., and the availability of school within the habitation—are also quite important. Coefficients of elasticity clearly show that government expenditures and household expenditures do not substitute each other, instead they complement each other. So if the government wishes to mobilise household finances for education, it is important that the government increases its own allocation to education considerably. Conversely, and more clearly, if government budgets on education are reduced, household expenditures may also decline resulting in severe under investment in education.

Status of SC population in India and Kerala, census 2011:

The following table shows population profile status of SC as per the census of 2011. The total population of Kerala is 30.39 in lakhs and in India population is 2013. The literacy rate of total Kerala population is 88.7 and in India 66.07. Literacy rate of female in Kerala is 85.07 and in India are 56.46. In the Census of 2001 the female Literacy rate is 58.67. It shows that in the 2001 - 2011 Duration the female literacy is going to high. And the male population of literacy is 92.6 for in Kerala and 75.17 in India. The literacy rate of 2001 is 75.26. Composed these two censuses the 2001 census shows the literacy rate of male is increased.

Table 1:- SC Population status in India and Kerala.

status of SC population in India and Kerala, census 2011	
	SC

Sl. No	Item	Kerala	India
1	Population (in lakh)	30.39	2013
2	Percentage to total Population	9.1	16.6
3	Decadal Growth Rate (%)	-2.7	20.8
4	Child Population to the total population	14.5	9.4
5	Sex Ratio	1057	945
6	Literacy rate	88.7	66.07
7	Literacy rate-Female	85.07	56.46
8	Literacy rate-Male	92.64	75.17

Source : Population Census 2011

Percentage distribution of scheduled caste population in kerala:

The settlement pattern of scheduled caste in the state is entirely different from other parts in the country. Major source of the scheduled castes in the state live as scattered along with other people. The highest distribution of scheduled caste is in the Palakkad district (13.29 percent) followed by Thiruvananthapuram (12.27 percent), Kollam (10.80 %), Thrissur (10.67 percent) and Malappuram (10.14 percent) these five districts accommodate 57.17 percent of the total scheduled caste in the state.

In Palakkad district 14.37 percent of the total population is scheduled caste. In Pathanamthitta the representation is 13.74 percent. In the districts like Idukki, Kollam, Thiruvananthapuram and Thrissur, the population scheduled caste is more than 10 percent of the total population. The Vedar, vettuvan, nayadi, kalladi, arundhathiyar/chakkiliar are the vulnerable communities among scheduled caste. They constitute 3.65 percent of the SC population in the state. It is shown in the following table.

Table 2:- Percentage distribution of scheduled caste population.

Sl.NO	District	Percentage Distribution of SC	Percentage Of SC To Total Population
1.	Kasargod	1.75	4.08
2.	Kannur	2.74	3.30
3.	Wayanad	1.07	3.99
4.	Kozhikode	6.55	6.45
5.	Malappuram	10.14	7.50
6.	Palakkad	13.29	14.37
7.	Thrissur	10.67	10.39
8.	Ernakulam	8.83	8.18
9.	Idukki	4.79	13.12
10.	Kottayam	5.06	7.79
11.	Alappuzha	6.62	9.46
12.	Pathanamthitta	5.41	13.74
13.	Kollam	10.80	12.46
14.	Thiruvananthapuram	12.27	11.30
TOTAL		100.00	91.0

Source: Population census 2011

Results and Discussion:-

For this study 50 SC households were randomly selected from the study area. Out of the total respondents 68 per cent are females and 32 per cent are males. Income and consumption pattern of the SC households depend on many factors like assets, level of education, occupation and demographic characteristics. In most of the household more than 50% of the income originates from the daily wage labour. Non-agricultural sources are the main sources of income for many households in the study area.

Consumption Pattern Of The Households:

The significance of income is the most important determinant of consumption. The respondents derive their income from daily wages. For the calculation of consumption expenditures, spending under all heads of consumption for all

members of the family have been collected separately. For regular items of expenditure monthly data have been collected. Expenditure on consumer durables is also included under the consumption expenditure. The consumption pattern of the households is analysed by studying the differences in the expenditure on different items in the consumption baskets. For the present study, data on 6 items have been collected and presented. This includes food items, cloth, education, electricity, health and others.

Income and Expenditure of the Households:

For analysing the consumption pattern of the family the total income and total expenditure of the family are calculated. From the collected data the total income and total expenditure of the family are shown through descriptive statistics. From the 50 families minimum amount of total income is 100 rupees and the maximum amount of total income is 29000 rupees. And the minimum amount of total expenditure is 750 rupees and maximum amount of total expenditure is 15200 rupees.

Table 3:- Descriptive Statistics.

Variables	N	Minimum	Maximum	Mean	Std. Deviation
Total income	50	100.00	29000.00	10038.0000	7910.77514
Total expenditure	50	750.00	15200.00	7899.4600	3809.26562

Source: computed from primary data

From the above table the N column shows the number of respondents and it is 50 in number. The range of variables is contained in the maximum and minimum columns. In this table the total income ranged from rupees 100 to rupees 29000, whereas total expenditure ranged from rupees 750 to rupees 15200. The average total income and total expenditure are contained in the mean column. Variability can be assessed by examining the values of St. Deviation column.

Expenditure Pattern of SC Households:

To find out the expenditure pattern of the households in the selected sample divide the consumption pattern in monthly basis. SC house hold in the study area is dividing their monthly consumption on the following food and non-food items. The expenditure pattern is to be clearly explained in the following table.

Table 4:- Expenditure pattern of SC households Descriptive statistics.

Items	N	Minimum	Maximum	Mean	Std. Deviation
Expenditure on food	50	200.00	8000.00	3358.0000	2060.12581
Expenditure on cloth	50	.00	5000.00	1116.0000	1010.17477
Expenditure on education	50	.00	5000.00	1358.4000	1304.18379
Expenditure on health	50	.00	3800.00	476.4000	691.66395
Expenditure on electricity	50	100.00	1500.00	364.2800	246.84764
other expenditure	50	.00	11680.00	2073.3000	2902.95866
Valid N (list wise)	50				

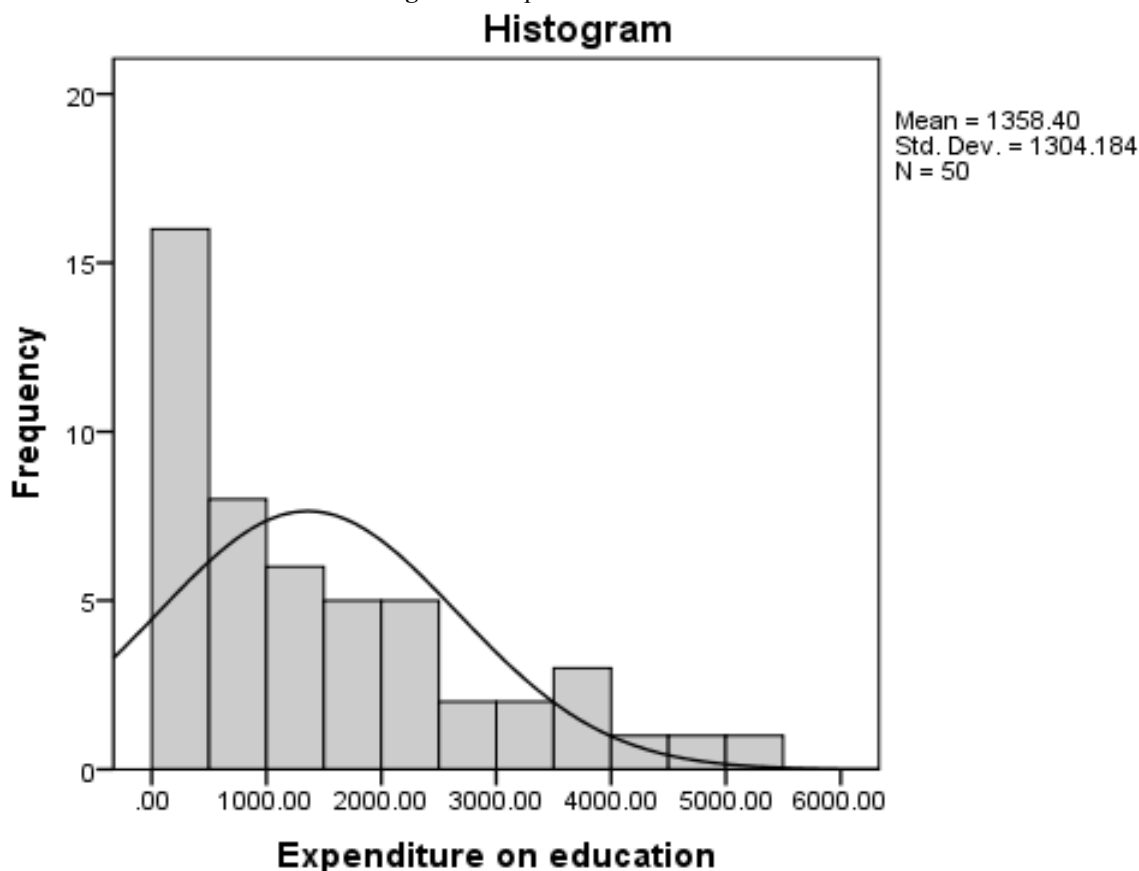
Source: Estimated from primary data

The above table (4) shows the descriptive statistics on the basis of expenditure pattern of the household. The expenditure was divided on the items like food, loth, education, health, electricity, and other expenditure. The number of cases in the data set is recorded under the column labelled Information about the range of variables is explained in the maximum and minimum columns. It is clear from the table that there is no minimum amount of expenditure for some items on the monthly basis. The average expenditure on various items is shown under the mean column. Variability can be assessed by examining the values in the slandered deviation column.

Expenditure on education:

One of the important objectives of the study is to examine the expenditure on education and its determinants. Therefore it is essential to understand the pattern of distribution of educational expenditure among scheduled cast families. It is shown diagrammatically with the help of following histogram.

Figure 1:-Expenditure on education



The diagramme shows the distribution of educational expenditure among scheduled caste. It is clear from the figure that the average expenditure on education is 1358.40. But the standard deviation is too high because expenditure on education is unequally distributed among respondents. The distribution of educational expenditure does not follow normal distribution. Therefore there is an inequality in the expenditure on education

Determinants of Educational Expenditure among Scheduled Caste:

One of the important objectives of the study is to find out the expenditure on education among scheduled caste. The existing literature suggest that income of the family is A crucial determining factor in the educational expenditure apart from income from various other socio economic and democratic factor also have significant influence on educational expenditure. This study has employed factors like income of the family, size of the family, educational qualification of the respondent, number of income earned members of the family as important determinants of educational expenditure. To find out the determinants of educational expenditure the study has used linear regression model by taking expenditure on education . The functional form and definition of the variables are given in the methodology part of first chapter.

The table 5 describes descriptive statics such as mean and standard deviation of the variables used in the analysis. The table shows that average educational expenditure of sample SC family is 1358.4 and its standard deviation is 1304.18. The average of monthly income of the sample respondent is 10858 and its standard deviation 8776.36. But the average family size is quite higher that is 5.2, the average earned members of the family 1.62 and 52% of sample respondents are have above SSLC education.

Table 5:- Descriptive statistics of the variables.

Descriptive Statistics					
variables	N	Minimum	Maximum	Mean	Std. Deviation
Expenditure On	50	.00	5000.00	1358.4000	1304.18379

Education					
Total Income	50	100.00	38000.00	10858.00	8876.36371
Family Size	50	3.00	10.00	5.2000	1.42857
Income Earned Members	50	1.00	3.00	1.6200	.75295
Education	50	.00	1.00	.52	.50467

Source: Estimated From Primary Data

Table 6:- Linear regression results for educational expenditure.

		Coefficient	Std. Error	T statistic	Sig.
1	(Constant)	1259.661			.052**
	Total income	.095	.020	4.859	.000***
	family size	39.173	10.74	1.88	.0517***
	education	-63.357	337.279	-.188	.852
	Income earned members	683.683	.040	4.759	.000***

Source: estimated from primary data

1 percent level of significance

05 percent level of significance

10 percent level of significance

The regression results is summarised in table 4.16. The table shows that income of the family have significant positive impact of educational expenditure of SC family. It observed that one rupee increased income leads to 95 paisa increase in educational expenditure in SC family. Therefore income of the family is significant a determinant of educational expenditure on the SC family in the study area. Income is significant at 5% level. Family size also have significant positive impact on educational expenditure on SC family. The result indicate the positive and direct association b/w educational expenditure and the family size, but the educational qualifications of the respondent doesn't have any significant impact on educational expenditure on SC family. Since the variables are low calculated "T" value and high probability value.

The number of income earned members in the family has a strong significant positive impact on educational expenditure among SC family. It means that expenditure on education of children have increasing with increase the number of income earned members in the family, the variable is significant at 1% level.

Table 7:- Model summary.

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.653 ^a	.427	.376	1030.13594

a. Predictors: (Constant), Income earned members, education, family size, Total income

Source: Computed From Primary Data

The table 4.17 summarised the model fit, which is measured in terms of R square value, it is nothing but its variation in depended variable is (educational expenditure) explained by independent variables (total income, family size, income earned members of the family, educational qualification of the respondent) .in this analysis R square value is 0.427 it means that 42% variation in educational expenditure explained by the variable income of the family size educational qualifications of the respondent .Therefore the fitted model is a good model.

The study has found that the socio economic condition of the households is good. In this municipality they got many services for the improvement in economic condition and economic status of the SC households, and also get educational benefits. Major factor attributed to this study are education, income, socio economic condition, expenditure on education, and other consumption expenditures.

Major findings of the study:

1. From the 50 families minimum amount of total income is 100 rupees and the maximum amount of total income is 29000 rupees. And the minimum amount of total expenditure is 750 rupees and maximum amount of total expenditure is 15200 rupees.

2. From the expenditure pattern of the household it is clear that the average monthly expenditure was used mainly for food consumption (3358). The average monthly expenditure among the respondent in the case of education was 1358.40.
3. It is also find that the distribution of educational expenditure does not follow normal distribution. Therefore there is an inequality in the expenditure on education among the households.
4. In the case of determinants of educational expenditure it is found that income of the family has significant positive impact of educational expenditure of SC family. It is observed that one rupee increase in income leads to 95 paise increase in educational expenditure in SC family. Therefore income of the family is significant a determinant of educational expenditure on the SC family in the study area. Income is significant at 5% level. Family size also have significant positive impact on educational expenditure on SC family. The result indicate the positive and direct association b/w educational expenditure and the family size, but the educational qualifications of the respondent doesn't have any significant impact on educational expenditure on SC family. Since the variables are low calculated "T" value and high probability value.
5. The number of income earned members in the family has a strong significant positive impact on educational expenditure among SC family. It means that expenditure on education of children have increasing with increase the number of income earned members in the family, the variable is significant at 1% level.
6. In the case of model fitted in the methodology part related to determinants of educational expenditure the model summarised that the R square value is 0.427 it means that 42% variation in educational expenditure explained by the variable income of the family size educational qualifications of the respondent. Therefore the fitted model is a good model

Conclusion:-

This is a preliminary study of household expenditure pattern and determinants of educational expenditure of the SC families in Kerala. Government should make appropriate policies to reduce the inequality among the social classes, especially backward classes of the society. From this study it is clear that the scheduled class households are very much clear cut idea about the present system of education and they were very much worried about the present system of education. Therefore the government should be introduce and implement many programmes and policy measures to improve the socio economic condition of the backward classes.

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