

DETERMINANTS OF TRIBAL EDUCATION WITH SPECIFIC REFERENCE TO KOTAS

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The importance of education is more pronounced for the tribals since they account for sizeable proportion of India's population-8.21 per cent according to 2001 census. For the development of the tribal community, education is a powerful instrument to change the attitude of the people and to create in them the urge of the necessary motivation to achieve social mobility. In this context the research study on "Determinants of tribal education with specific reference to Kotas" is formulated with the objectives of studying the educational status of Kota children in terms of enrollment and dropout, identify the factors determining the education of Kotas and finding out the problems faced by Kotas in getting education. The study was related to Kota tribals in Kotagiri taluk of Nilgiris District in TamilNadu. The required data relating to general background, family background, enrolment, etc were collected by administering an interview schedule to the head of households in the selected area and the study covered 100 households. The required data were obtained by administering a structured interview schedule to the households having population in the age group of 6-24. The study estimated composite education index and used Sopher's disparity index, logit analysis and Garrets ranking technique. According to the study the enrolment rate of Kotas was estimated to be 85.86 per cent. Of the total male school/college going population, 88 were enrolled and hence male enrolment rate worked out to be 92.63 per cent. The calculated female enrolment rate was 78.65 per cent. Of the students enrolled, 49 were dropped out and dropout rate was calculated as 31.82 per cent. The composite educational index was estimated as .66 and was high for boys (.56) as compared to girls (.49). The study identified mothers occupation, family income and land ownership as significant determinants of demand for education of Kotas. To improve tribal education the study recommended establishment of secondary and higher secondary schools within easy accessibility.

INTRODUCTION

Education is crucial to development as it provide the individual with adequate skill for participating in various economic activities. Education brings out improvement in health, hygiene, demographic profile, productivity and practically connected with the quality of life. Amartyasen (1992) is of the opinion that literacy should be seen as one of the basic capabilities which is constitute of human well being that it is not merely an indicator of social and

economic condition but also the means whereby degrees of freedom can be exerted over one's own life. Education is considered to be one of the most sensitive indices of social development, prosperity, harmony and cooperation in the society (Pillai, 2002). The importance of education in the process of economic growth has been emphasized by several economists- Mint (1954), Theodore W. Schult (1962), Panchamukhi P. R. (1965), Ambashat N.K (1966), Richard A. Musgrave (1966), Mark Blaugh (1968),

Christaper Colclough (1982), Jandhyala B. G. Tilk (1987) etc..

Realizing the importance of education, the Government of India has increased the budgetary outlay for education in various Five year plans. In the First five year plan, the outlay was Rs. 150 crores which has increased to Rs. 2, 75,000 crores in Eleventh Five Year Plan. The expenditure on education as a percentage of Gross Domestic Product also rose from 0.7 per cent in the First Plan to 6 per cent in Eleventh plan (Planning Commission, 2007).

The importance of education is more pronounced for the tribals since they account for sizeable proportion of India's population-8.21per cent according to 2001 census. For the development of the tribal community, education is most important element. It is a powerful instrument to change the values and attitude of the people and to create in them the urge of the necessary motivation to achieve social mobility and social ascendaency According to Chakarvarty (2007) the overall development of tribals should include their empowerment in education. However, the educational status of tribal population is poor as indicated by the literacy rate of 41.5 per cent as compared to All India average of 65.4 per cent in 2001. Hence there is need for improving the literacy of tribals.

Realising the importance of tribal education the Government of India had formulated many programmes to improve tribal education. Some of the measures are:

- Primary education continued through Sarva Shiksha Abhiyan with the participation of scheduled tribe parents/guardians in activities of school.
- Priority is accorded to opening primary schools in tribal areas.
- Ashram schools/residential schools are established on a large scale in tribal areas.
- Incentives schemes are formulated for the scheduled tribes, keeping in view their special needs and life style and
- Mid day meals acts as a support service to increase retention rates.

However on an average in year 2001, difference between the literacy rate of general population and

that of scheduled tribes has been around 15 per cent. While at the national level, literacy among males was estimated as 75.9 per cent and for females as 54.2 per cent, the corresponding figures with regard to tribal males and females were found to be 59.2 per cent and 34.8 per cent. (Source: Census 2001).

The tribals in India are predominantly rural (92.6 per cent), mostly live in forest and mountains, somewhat isolated from the general population, are overwhelmingly illiterate (76.37 per cent) and more than 50 per cent of the population live below poverty line (Singh, 1993). The primary occupations of tribals in India are hunting, agriculture, rural crafts and very negligible per cent of tribes are engaged in non-agricultural activities. Being illiterate, the tribal people cannot become acquainted with day today development in science and technology. Due to illiteracy, people of these communities are totally ignorant of basic principles of health which makes them an easy prey to diseases. For a tribal family to send a boy or a girl is essentially a matter of economics and entails dislocation in the traditional pattern of their labour force. Many tribals refrain sending children to school due to loss of good characteristic of the labour force and the fear of expenditure on education (Venkataraman, 2001).

Kotas are known by several names like, koter, kothara, kothewars and kohatur. The Kotas speak their own dialect, an old dialect of Kannada language mixed with Tamil words. The Kota village is called a Kokkal, which represents thirty to sixty houses in two or three localities called 'Keris'. The Kota people are light skinned, having a copper colour, tolerable height and are strong built. Male dress consists of a shirt and a munds and a women dress consists of single piece of white cloth called 'Kir'. The white bedspread cloth is thrown around the body by men and women. The Kotas are cattle-keepers like cows and buffaloes.

In India research attempts (Ashuthosh Thakar (2001), Raghunath Rath (2006), Kukreti (2004) etc.) were made at analyzing the status of tribal education. But there had been little attempt concentrating on the analysis of Kotas. Hence the current study

on "Determinants of tribal education with specific reference to Kotas" is expected to fill up the research gap. The basic objectives of the study are:

- To study the educational status of Kota children in terms of enrollment and dropout;
- To identify the factors determining the education of Kotas and
- To identify the problems faced by Kotas in getting education.

METHODOLOGY

The study was related to Kota tribals in Kotagiri taluk of Nilgiris District in TamilNadu. The required data relating to general background, family background, enrolment, etc were collected by administering an interview schedule to the head of households in the selected area and the study covered 100 households. The required data were obtained by administering a structured interview scheduled to the households having population in the age group of 6-24.

The study formulated the hypothesis that,

1. There is no gender disparity in literacy,

Actual gross enrolment ratio - Minimum gross enrolment ratio
Maximum gross enrolment ratio - Minimum gross enrolment ratio

2. Father's education, mother's education, family size, father's occupation, mother's occupation, family income, landownership, cost of education and distance were insignificant of determinants of education of Kota tribals.

The study tried to construct composite educational index for the scheduled tribes, following the approach of Nauriyal and Shahoo (2010). The composite educational index was calculated as follows.

Composite Educational Index (CEI) = $(2 * LI + GI) / 3$

ere literacy ne $\frac{\text{Actual literacy rate} - \text{Minimum literacy rate}}{\text{Maximum literacy rate} - \text{Minimum literacy rate}}$

Where maximum value is 100 and minimum value is 0.

Quantitative Tools Used

Sopher's Disparity Index

The disparity in literacy rate between males and females among selected population has been estimated by using

Sophers (1974) disparity index. The index may be written as follows:

$$D = \log (X_2/X_1) + \log (Q-X_1)/Q-X_2$$

Where X_1 and X_2 are per cent literate among the two groups of population and Q greater than 100. The index as proposed by Sopher lacks in certain desirable properties. Indicating this Kundu and Rao (1986) proposed Q greater than 200 and the current study follows the same. Lower value indicates lower disparity and higher value indicates higher disparity.

Logit Analysis

The current study attempted a logit analysis to identify the determinants of tribal education. The household decision as to whether a tribal child will be sent to school/college is a qualitative variable. It depends on a large number of demographic, economic and social factors. Based on past studies, important variables like family income, family size, cost of education, father's education, mother's education, father's occupation, mother's occupation, father's age, mother's age and land ownership have been considered in the present analysis, to identify the determinants of tribal education.

The probability of 100 per cent willingness to send the tribal children to school depends on the following attributes.

- (i) The parental characteristics-Father's education (FLIT), Mother's education (MLIT) and Mother's occupation (MOCCO);
- (ii) The demographic characteristics like the size of the family (SF);
- (iii) Economic characteristics like the family income (FINC) and land ownership (LOWN).

Hence, the equation is written as follows:

$$Z = \beta_0 + \beta_1 FLIT + \beta_2 MLIT + \beta_3 FOCCO + \beta_4 MOCCO + \beta_5 SF + \beta_6 FINC + \beta_7 LOWN + \beta_8 DIST + \beta_9 COST$$

The estimated values of the parameters $\hat{\alpha}_1$ to $\hat{\alpha}_9$ were used to describe the probability of 100 per cent willingness on the part of the household to send tribal children for education.

Father's occupation was denoted as dummy variable. If the father was employed, the value 'one'

was assigned and if he was unemployed, the value 'zero' was assigned. The coefficient of the equation with respect to father's occupation was expected to be positive. Mother's occupation was denoted as a dummy variable if the mother in a particular household was employed the value 'one' was assigned and if she was unemployed, the value 'zero' was assigned. The coefficient of the equation in relation to mother's occupation was expected to be positive. Size of the family has an absolute value. The coefficient of the equation in relation to size of the family was expected to be negative. Family income of the household also has an absolute value. The coefficient of the equation in relation to the family income was expected to be positive. Land ownership is measured in terms of acres and coefficient of equation in relation to land ownership was expected to be positive.

The coefficients of the logit equation were estimated by using Limdep software version 7.0.

Garrets Ranking Technique

In order to analyse the problems in tribal education, Garrets raking technique was followed. The formula used was

Where R_{ij} = Rank given for i th variable by the j th respondent;

N_j = Number of variable ranked by the j th respondent.

By using this formula the result observed is compared with Garrets ranking table and scores were calculated. The total scores for each item were added and ranks were given according to the total value.

FINDINGS OF THE STUDY

Socio Economic Profile of the Families

The literacy level is determined by size of the family, family income, type of family etc. Hence the current study tried to analyse socio economic profile of the families. Table 1 represents the socio economic profile of the selected families.

Table 1
Socio Economic Profile of the Selected Tribal Households

<i>Sl. No.</i>	<i>Items</i>	<i>Number</i>
1.	Age Structure I (in years)	
	0-5	13
	6-10	45
	11-13	35
	14-15	39
	16-17	28
	18-24	37
	24-30	32
	30-40	52
	40-50	27
	50-60	13
	Above 60	21
2.	Sex	
	Male	163
	Female	179
3.	Occupations	
	Farming	49
	Business	7
	Workers	34
	Coolies	10
4.	Family Income (in rupees)	
	Below Rs. 5000	23
	Rs. 5000-10,000	43
	Rs. 10,000-20,000	19
	Above Rs. 20,000	15
5.	Type of Family	
	Small	65
	Large	35
6.	Education of the Head of the Family	
	Illiterate	30
	Primary	45
	Secondary	23
	Higher Secondary	2
7.	Landownership (in cents)	
	0.5-1	43
	1-4	20
	4-8	22
	8-12	15
8.	Distance (in kilometers)	
	Below -0.5	20
	0.5-1	22
	1-2	25
	2-3	20
	Above 3	13

Source: Field survey

Table 1 reveals that, there were 342 members in the selected households. Of total members, 13 were representing the age of 0-5, while 45 belonged to the age group of 6-10 and 74 belonged to the age of 10-15.

The total number of males were 163 and females were 179. The analysis of occupation indicated that majority of family members were doing the work of farming.

Table 1 also implies that 43 per cent of the families were getting the family income of Rs. 5000 to Rs. 10,000. Of the total families covered 65 per cent belonged to small family and 35 per cent represents large family.

It is also clear that 30 per cent of the head of the selected tribal households were illiterate. Of the literate head of the households, 45 per cent have completed primary education.

Stage Wise Enrolment of Selected Kotas in Nilgiris District

Table 2 gives details about the number of Kotas students enrolled at various level of education.

Table 2
Stage Wise Enrolment of Selected Kotas in Nilgiris District

Education	Number of boys	Number of girls	Total
Primary	32	24	56
Secondary	28	25	53
Higher secondary	18	12	30
College	10	9	19
Total	88	70	158

Source: Field survey.

Table 2 make it evident that only 158 were enrolled. However 184 represent school/college going population. Hence the enrolment rate of Kotas was estimated to be 85.86 per cent. The poor enrolment of Kotas might be due to long distance to school or difficulty in medium of instruction.

There exists male-female disparity in enrolment of Kotas. Of the total male school/college going

population, 88 were enrolled and hence male enrolment rate worked out to be 92.63 per cent. However there were only 70 females enrolled in schools. The calculated female enrolment rate was 78.65 per cent.

Stage Wise Dropout of Selected Kotas in Nilgiris District

When the students enrolled are not able to complete their study, they drop out from studies and this implies wastage of human resources. Table 3 represents the details about the stage wise drop out of selected Kotas.

Table 3
Stage Wise Dropout of Selected Kotas in Nilgiris District

Stage	Number of boys	Dropout rate for boys	Number of girls	Dropout rate for girls	Total Dropouts	Total Dropout rate
Primary	2	6.25	8	33.33	10	17.86
Secondary	9	32.14	11	50	20	37.74
Higher secondary	8	44.44	6	50	14	46.67
College	2	20	3	33.33	5	25
Total	21	23.86	28	40	49	31.82

Source: Field survey.

Table 3 indicates that of the students enrolled, 49 were dropped out and dropout rate was calculated as 31.82 per cent. The dropout at the higher secondary level is high as compared to other levels. This might be due to the compulsion of the parents to look after the young siblings or go for work.

The comparative analysis of dropout rate of boys and girls reveals that girl's dropout rate was higher than that of boys dropout. This might be due to the fact that girl children are retained by the parents to look after their siblings.

Composite Educational Index

The current study tried to construct composite educational index based on educational attainment index and enrolment index.

Table 4
Frequency Distribution of Educational Attainment Index, Gross Enrolment Index, Composite Educational Index for Kotas

Range	Educational Attainment Index			Gross Enrolment Index			Composite Educational Index		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
.30-.40	2	1	3	-	-	-	-	-	-
.41-.50	32	13	45	-	-	-	1	1	2
.51-.60	9	10	19	7	15	22	10	12	22
.61-.70	1	1	2	1	2	3	22	32	54
.71-.80	16	11	27	3	6	9	8	6	14
.81-.90	1	-	1	1	2	3	5	3	8
.91-1.00	1	2	3	29	34	63	-	-	-
Average	.35	.23	.58	.56	.49	.85	.31	.35	.66

Source: Calculated figures based on field survey.

The average educational attainment index was estimated as .58 and this was high among boys (.35) and low among girls (.23). The composite educational index was estimated as .66. The average gross enrolment index was high for boys (.56) as compared to girls (.49).

Estimated Gender Disparity Index of Literacy, Enrolment and Dropout of Kotas

Table 5 presents the estimated gender disparity index of literacy, enrolment and dropout.

Table 5
Gender Disparity Index of Literacy, Enrolment, Dropout and Composite Education Index of Kotas

Item	Male	Females	Overall	Disparity Index
Literacy	81.25	70.36	75.60	0.6656
Enrolment	92.63	78.65	51.83	0.4823
Dropout	23.86	40.00	31.82	0.4471
CEI	.31	.35	.66	1.1297

Source: Calculated figures based on field survey.

The disparity in literacy rate between males and females was found to be .6656. Disparity in enrolment rate between males and females was found to be 0.4823. The disparity in composite education index was 1.1297. The estimated gender disparity index was lower with regard to enrolment.

Identification of Determinants of Demand for Education

In order to estimate the relationship between households decision to educate and socioeconomic characteristics of the family the current study specifies qualitative response model.

The study tried to identify the determinants of education with the help of Logit analysis. The estimated parameters related to father's education, mother's education, mother's occupation, size of family, family income, land ownership and distance are given in following Table 6.

Table 6
Estimated Logit Coefficients of Demand for Education as Related to the Selected Variables

Variable	Regression Coefficients	t value	Probability
Constant	-0.0603	-1.29	.20
Father's education (X1)	1.4366	0.32	.75
Mother's education (X2)	-0.8159	-1.60	.11
Family size (X3)	-0.7987	-0.72	.47
Father's education (X4)	-0.1155	-2.34*	.02
Mother's education (X5)	1.4464	2.82*	.00
Family income (X6)	1.0053	2.21*	.03
Land ownership (X7)	9.8393	4.24*	.00
Cost of education (X8)	-0.9771	-0.58	.56
Distance (X9)	-3.1248	2.47*	.01

Source: Calculated figures based on field survey

* Statistically significant.

Table 6 indicates that father's education, mother's occupation, family income and land ownership have got positive impact on attitude towards tribal education. Among these factors, mother's occupation, family income and landownership were statistically significant determinants. This implies that employment and economic status of the family were the basic factors determining education of Kotas. Cost of education and distance has got a negative impact on education of Kotas. In this context the current of study is in accordance with the view of Saqib and Zahid (1999), Bilquees and Hamid (1989) and Shahnaz Hamind and Rehana Siqqiqui (2001) distance to school is the restraining factor in tribal education.

Problems in Education

There are restraining factors on the demand for education ranging from poor income of the family to higher cost of education. Table 7 brings out the problems in faced by Kotas in getting education.

Table 7
Problems Faced by Kotas in Getting Education

Problems	Number
Non-availability of school	3
Long distance	32
Harsh attitude of teachers	2
Inadequate facilities	5
Tough syllabus	4
Inconvenient timings	18
Unfamiliar language	22
Inadequate teachers	6
Difficult language	5
Sick parents	3

Source: Field survey.

Table 7 reveals that, the distance between home and schools acts as a bottleneck in sending the tribal children to schools since the parents are more concerned about the safety of the children.

Garrett Ranking of the Problems in Education

By using Garretts formula total scores for each item were calculated and the ranks were given according to the total value. The garretts are given in Table 8.

Table 8
Garretts Ranking of Constraints in Education

Constraints	Total score	Mean score	Garrets rank
Non-availability of school	379	3.79	VIII
Long distance	1530	15.30	I
Harsh attitude of teachers	266	2.66	IX
Inadequate facilities	406	4.06	VII
Tough syllabus	262	2.62	X
Inconvenient timings	520	5.20	VI
Unfamiliar language	578	5.78	V
Inadequate teachers	677	6.77	III
Difficult language	764	7.64	II
Sick parents	657	6.57	IV

For Kotas long distance is the major problem in education. The second important constraint faced by them was difficult language. The inadequate number of teachers in the school also poses serious difficulty to the Kotas tribals. Inconvenient timings and inadequate facilities in the school were the predominant problems faced by tribal students.

CONCLUSION

- (i) In recent times, people are realizing the value of tribal education. Even the low income families are willing to educate their children;
- (ii) The basic determinant of education in tribal area is the employment and economic status of household interms of income and landownership. and
- (iii) Tribal education is constrained by the distance between home and school and the non-availability of adequate transport facilities.

Measures recommended;

Based on the findings of the study, the following measures are recommended to improve education in tribal areas.

1. Establishment of secondary and higher secondary schools within easy accessibility;
2. Providing regular transport facilities;
3. Motivating all the parents to send the children to school and not to work
4. Creating awareness to the rural families about the educational facilities provided by Government and
5. Flexible school timings can be introduced for girl children.

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