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SCHEDULED CASTE STUDENTS PARTICIPATION IN TECHNOLOGY AND INNOVATION STUDIES: EXPLORATIVE STUDY AMONG HIGHER EDUCATIONAL INSTITUTIONS OF KERALA

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ABSTRACT

In this globalization economy the world has accepted the development and importance the science technology and innovation. Technological and Innovative studies and development are the key supporting factor for a nation's economic growth and development. World has given attention to highly skilled human capital to support the growth of Knowledge Economy. The development and participation in higher education and are a pivotal role. The quality of higher education and their contribution to national and regional development and the less number of scheduled caste students participation in higher education is major concern among the policy makers of India. The paper examines higher education and development participation of scheduled caste students in science and technology subjects. The study is based on the primary data collected from higher education institutions of Kerala on science and engineering subjects And it is an attempt to find out the gap of existing education system and suggest various policy measures in higher education to improve the existing condition and participation of Schedule caste of Kerala.

Key words: Higher education, Innovation, Human capital, Schedule caste

INTRODUCTION

Education in the modern society assumes roles ranging from a basic ingredient for its successful functioning to a mechanism capable of weaving the multitude of distinctly different threads that can create a better tomorrow (George. 2011) Education plays a vital role to achieve employment income and social empowerment . Equal opportunity and inclusiveness from different sections of society is an integral part for a democratic society. Participation of marginalized section in Educational is essential for social and economic mobility for a stable society. Now days, Illiteracy and low level of education is a general problem for the country which is critical across caste, religion, and region (Dhende. 2017). According to 2011 population census Scheduled caste constitute 9.1 percentage of total population . Include Scheduled caste in human development process through higher education is essential for social and physical capital formation. Through the up gradation of educational standard scheduled caste people acquire better position in the Indian society. Higher education offers courses which range from transition (school to work) programmes, to postgraduate study and research. Challenges for the betterment of marginalized group

especially among scheduled caste incorporated in science technology and engineering subjects. In this context the study is an attempt to find out status and challenges of scheduled caste students in higher education.

Objectives

1. To assess the scheduled caste students participation in higher education in India.
2. To find out the constraints faced by scheduled caste students in science and engineering subjects.
3. To bring out the challenges faced by Scheduled Caste students in higher education and the possible ways to improve the same.

Methodology

The study collected information from both primary and secondary source of data. Secondary source of data gathered from annual reports of various educational ministerial departments. And various research studies .Primary data is collected through field survey among the full time scheduled caste college students in the University of Kerala. Detailed information collected from 254 graduate and post graduate students in science and engineering subjects.

Analysis and findings

Table 1: Students Enrolment In Different Discipline Of Higher Education 2015-16

No.	Discipline	Total enrolment	% of Enrolment
1	Arts	10271296	36.06
2	Science	5417464	19.02
3	Commerce/Management	4637317	16.28
4	Education	1085876	3.81
5	Engineering/Technology	4885134	17.15
6	Medicine	1118178	3.93
7	Agriculture	240090	0.84
8	Veterinary Science	31332	0.11
9	Law	474423	1.67
10	Others	323636	1.14

Source: UGC annual report 2015-16.

Table 1 illustrates the Students enrolment in different discipline of higher education in 2015-16. The percentage result indicates that 36.06 per cent of the students were enrolled in Arts subject as well as this was the highest number of enrolment when compared to the other disciplines. In science subject 19.02 per cent of the students were enrolled in 2015-16. 16.28 per cent of the students were enrolled in commerce and management subjects, and 17.15 per cent of the students were enrolled in Engineering/ Technology disciplines. Rest of the subjects has only below 10 per cent enrolment in year.2015-16. A look at the table, it was clearly indicate that only 0.11 per cent of the students were enrolled in Veterinary science.

Table 2: Literacy rate of scheduled caste population

Year	Total Population			Scheduled caste population		
	Male	Female	Total	Male	Female	Total
2001	75.30	53.70	64.80	66.64	41.90	54.69
2011	82.1	65.5	74.0	75.2	56.5	66.10

Source: Census report 2001 &2011

The Literacy among SC has been increasing over a period of 2001 to 2011 is shown in the table 2. The data shows that there is gradual increase in the literacy among total population and there is a sharp increase in literacy rates among Scheduled castes. The literacy gap among scheduled caste females

and total female population in India is higher compared to literacy gap among males of both categories

Participation in higher education

A total of 254 scheduled caste students have been interviewed in universities of Kerala. The number of respondent was varied from different science subjects. Female SC student were responded high (54.8percent) and male SC students (58percent).The proportion of female students is more in is due to majority of women students.

Table 3: Number of graduate and post graduate Students in university of Kerala

Subject of study in percentage	Gender		Total (n=254)	t-test value	DF	P-value
	Female (n=166)	Male (n=88)				
Science	54.8	42	50.4	1.941	252	.0533
Engineering	45.2	58	49.6	1.941	252	.0533
Age			Independent group t-test (2-tailed)			
Mean	20.46	21.48	23.16	8.763	252	.0000
Place of residence						
Rural	58.8	68.2	64.2	1.469	252	.1431
Urban	39.4	27.3	35.8	1.921	252	.0558

Source: Primary Survey

Table 3 shows the number of female and male graduates' students in University of Kerala. Result illustrates the per cent status of male and female students. Two sample t-test percentage comparison test was used to find whether there is any statistically significant difference between male and female students regarding science and engineering disciplines in the University of Kerala as well as the rural and urban area. Here the result indicate that there is no statistically significant difference between male studen6ts percentage and female students percentage with regard to the science discipline t252=1.941, .0533, the p-value is higher than at 5 per cent significant level (0.05<.0533), hence there is no difference. The engineering subject was also showing the same result of t-test i.e., *t252*=1.941, .0533. Hence it can be inferred that there is no significant difference in the male and female percentage with regards to the science and engineering subjects in University of Kerala. Table 3 also shows the age wise significant difference between male and female students of University of Kerala. Here the table shows Mean score of male and female students, hence the researcher has used independent group t-test for identifying statistically significant difference between male and female students. Result indicate that *t252*=8.763, .0000, her the p-value is less than the level of significance, this proves that there is a statistical significant difference between male and female students of University of Kerala while considering their age. Table also shows place of residence wise distribution of male and female students of University of Kerala. Her the result shows that 58.8 per cent of the female students were came from rural area and 39.4 per cent them were came from urban area where as 68.2 per cent of the male students were came from rural area and 27.3 per cent of them were came from urban area. Two sample t-test percentage comparisons were used to find the significant difference between male and female respondents regarding their place of resident. Result indicates that there is no significant difference between the male and female students of university of Kerala while considering their place of resident. t252=1.469, .1431>0.05. Whereas the urban area were giving same result i.e., there is no significant difference between male and female students of University of Kerala while considering their place of resident. From the result it can be concludes that male and female students of University of Kerala is almost same and no significant differences were identified with regards to the subjects and place of residents, whereas the t-test result indicate that there is a difference between male and female with regards their age.

Educational supporting schemes for scheduled caste students

The Government provide various schemes for the Scheduled caste students for their educational support. Following are some of the major schemes. The post matric hostel facility provide residential support to the students there are 17 post matric hostel all over the Kerala. From the primary survey majority of SC students staying in hostel for their higher education 37.8 per cent male and 62. 2 per cent female students staying in hostel.

Table 4: Post matric hostel Facility for Schedule caste students

Gender	Post matric hostel Facility		Total
	Yes	No	
Male	51(37.8)	37(31.1)	88(36.4)
Female	84(62.2)	82(68.9)	166(65.4)

Source: Primary survey

Lum sum grant is a financial support given to the SC students for every academic year. For the graduation period sum of rupees 1190 given to every year and for the post-graduation a sum of 1570 rupees given to each year. All SC students are receiving this financial aid from the government.

Table 5: Lum Sum grants for Scheduled caste students

Gender	Lum sum grants		Total
	Yes	No	
Male	88(34.6)	0	88(34.6)
Female	166(65.4)	0	166(65.4)

Source: Primary survey

Providing Lap top scheme were started in the 2012. In the initial stage it was provided through Grama panchayaths now it is under the Scheduled caste welfare department 34.5 per cent male students receive laptop and 65. 4 per cent female. Majority of students are not aware about this scheme.

Table 6: Lap top get from the SC Development department

Gender	Lap top		Total
	Yes	No	
Male	46(34.5)	42(34.7)	88(34.6)
Female	87(65.4)	79(65.3)	166(65.4)

Source: Primary survey

Special incentive scheme is a prize money to encourage the SC students. It given to one who achieving first class in the degree of post-graduation studies. There are 40 per cent of male and 60 per cent of female students receive the encourage scheme.

Table 7: Special Incentive Scheme for SC students

Gender	Lap top		Total
	Yes	No	
Male	36(40)	52(31.7)	88(34.6)
Female	54(60)	112(68.3)	166(65.4)

CONCLUSION

The study tries to find out challenges in higher education in the universities of Kerala in science and engineering field of study. From the empirical analysis, it is observed that the students in science and engineering fields of study faces many challenges because of their social and economic background. Institutional support is good in general sense but the institutional incapability and social vulnerability is major challenges These socially backward groups need more orientation training and financial support to uplift the community.

REFERENCE

George, K.K. (2011). Higher Education in Kerala: How Inclusive is it to the Scheduled Castes and Scheduled Tribes?: *CSSEIP Working Papers. 1.(4),* Cochin University of Science and Technology, Kerala, India

Dhende, L.D. (2017). A Study of Scheduled Caste and Higher Education Scenario in India. International Journal of Engineering Technology Science and Research, November 2017.

OECD. 1999. *The Knowledge-Based Economy: A Set of Facts and Figures*, OECD:Paris

DECLARATION

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I, C. Thomas Sebastian, hereby declare the particulars given above are true.

Kuravilangad,
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(Sd/-)
C. Thomas Sebastian