PUBLIC FUNDING AND ENROLMENT IN SECONDARY EDUCATION: A STUDY OF RAJASTHAN

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MASTER OF PHILOSOPHY

KAVITA MEENA

ZAKIR HUSAIN CENTRE FOR EDUCATIONAL STUDIES
SCHOOL OF SOCIAL SCIENCE
JAWAHARLAL NEHRU UNIVERSITY
NEW DELHI-110067

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NEW DELHI-110067

ZAKIR HUSAIN CENRE FOR EDUCATIONAL STUDIES
SCHOOL OF SOCIAL SCIENCES

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DECLARATION

I, **Kavita Meena**, declare that the dissertation entitled **"Public Funding and Enrolment in Secondary Education: A Study of Rajasthan"** is submitted in partial fulfillment for the award of the degree of Master of Philosophy of Jawaharlal Nehru University. This dissertation has not been previously submitted for any degree of this or any other University and is my original work.

Kavita Meena
Kavita Meena

CERTIFICATE

We recommend that this dissertation be placed before the examiners for the award of the degree of Masters of Philosophy in this University.

27/7/2015
Prof. Minati Panda

(Chairperson)

CHAIRPERSON
Zakir Husain Centre for
Educational Studies
School of Social Sciences
Jawaharlal Nehru University
New Delhi - 110067

Saumen Chattopadhyay
Prof. Saumen Chattopadhyay

(Supervisor)

PROFESSOR
Zakir Husain Centre for
Educational Studies
School of Social Sciences
Jawaharlal Nehru University
New Delhi - 110 067

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Contents

List of Abbreviations

AISES	:	All India School Education Survey
ASER	:	Annual Status of Education Report
BSE	:	Board of Secondary Education
CABE	:	Central Advisory Board of Education
Deptt.	:	Department
DISE	:	District Information System of Education
dt.	:	Date
EBB	:	Educationally Backward Block
Edu.	:	Education
EFA	:	Education For All
et al.	:	and Other
FICCI	:	Federation of Indian Chamber of Commerce and Industry
GDP	:	Gross Domestic Product
GER	:	Gross Enrolment Ratio
GOI	:	Government of India
GOR	:	Government of Rajasthan
Govt/govt.	:	Government
HDI	:	Human Development Index

HRD	:	Human Resource Development
Ibid.	:	the Same Place
ICDS	:	Integrated Child Development Services
KVS	:	KendriyaVidyalayaSangthan
L.Sec.	:	Lower Secondary
MDG	:	Millennium Development Goal
MDM	:	Mid -Day Meal
MHRD	:	Ministry of Human Resource Development
MPCE	:	Monthly Per Capita Expenditure
MRW	:	Mankiew, Romer and Weil
NFHS	:	National Family Health Survey
NGO	:	Non- Government Organization
NIOS	:	National Institute of Open Schooling
NITI Aayog	:	National Institution for Transforming India Aayog
NPE	:	National Policy on Education
NSSO	:	National Sample Survey Organization
NVS	:	NavodyaVidyalayaSamiti
OBC	:	Other Backward Class
PFST	:	Poor Family Socialization Theory
PP	:	Pre-Primary
pp. / p.	:	Page

PPP	:	Public Private Partnership
RMSA	:	Rashtriya Madhymic Shiksha Abhiyan
RTE	:	Right to Education
RTE	:	Right to Education
SC	:	Scheduled Caste
SDP	:	State Domestic Product
Seco/Sec.	:	Secondary
SEMIS	:	Secondary Education Management Information System
Sl.No.	:	Serial Number
Sq.KM	:	Square Kilometer
SSA	:	Male
SSA	:	Sarva Siksha Abhiyan
ST	:	Scheduled Tribes
Ter.	:	Tertiary
U Sec.	:	Upper Secondary
UEE	:	Universalization of Elementary Education
UNDP	:	United Nations Development Programs
UNESCO	:	United Nations Educational, Scientific and Cultural Organization
UNICEF	:	United Nations International Children's Emergency Fund
UNO	:	United Nations Organization
WBR	:	World Bank Report

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Chapter 1

Introduction

1.1 An Overview

Education has utmost significance for the society and it serves social as well as the economic purpose of the man; which has been supported well by various empirical studies including literature related to the endogenous or the New Growth theory in economics. Initially, education was taken as the consumption commodity but after, the advent of the human capital theory it became to be considered mostly as an investment good. It is difficult to separate out the consumption and investment traits of the education as it depends on the context, the institute and the individual. Therefore, it becomes difficult to determine the optimum allocation of resources for education.

According to the human capital theory, if the individual or state spends on the potential of the individuals which is on education and training, health, etc., will increase the productive efficiency and skills of the individuals. However, there is no discrimination over the point that education enhances the productivity of labours, improve the skill ability and also improve the development of individual and society as well as income level. Thus, education increases the productivity of the human being; it is a universally proved fact.

Education raises the economic growth directly or indirectly such as, *first*, it may raise the quality of the labour force and it is presumed that it enhances the productivity of the educated graduate, which speed up the knowledge and technological spillover into the society and that is applicable to the society. And, *second*, education by raising the quality of the labour force may stimulate the productivity of the economy. Hence, investment in education broadens and boost knowledge, leading to advances which raises the productivity and improvement in health (Johnson, 1968). Recently, the world economies suggested that now the economies shouldn't worry about their economic growth. They should emphasize more than economic growth of the economy. And, education is the most prominent factor of development as it refers to the addition of the growth

of ideas and system. The economic development is the major theme ofthe Human Development Report. There are many countries in the world where the significance of the education is not well understood especially in their backward societies.

Whereas, a positive relation between education and economic development was found to be stronger in case of less developed countries (Psacharopoulos, 1973). For the development of the state, the welfare state always has to take the steps because individuals are unaware from its significance. So, the expenditure on education on behalf of the citizens, the government has to take initiative to start educating children. The other most significant obstacle is inequality, which is unlikely to alleviated by economic growth because what matters in the composition of economic growth is income growth not by development per se (economic growth doesn't care much about the inequality of the society, to weed out the inequality from the society and it is an important aim of any economy to enhance economic development). Some of the studies suggest that there is a positive relation between education and income distribution (Schultz, 1963; Tinburgen, 1970; Tilak, 1986).

1.2 Significance of Secondary Education in the Contemporary Era

India is a young nation of the world and major part of its population are graduating from the age group of 20-35 years. The 'Demographic Dividend' that presents India an opportunity to propel its economic growth along with growth in other spheres of the economy. But, the problem arises when itbecame apparent to our eyes that this 'demographic dividend' is not as healthier, appropriately skilled and intellectually rich. The population is helpful in any nation's development if, this population group is healthy, educated and endowed with skills.

India has been focusing on education from the very beginning of its independence period and also provides constitutional right to primary education as the first education minister of India Maulana Abdul Kalam Azad in his own words emphasized on the importance of education for the development of individual of any country as follows:

"*Every individual has a right to an education that will enable him to develop his faculties and live a full human life. Such education is the birth right of every citizen. A state cannot claim to*

have discharged its duty till it has provided for every single individual the means of acquisition of knowledge and self-betterment" (Suranjan, 2007).

In India, education is provided by the public and private sector and the funding for it comes for all the level that is center, state and the local level. Under the Constitution of India education is the fundamental right to the children between the ages of six to fourteen. Primary education constitutes the base for education pyramid thus; the Indian government is trying hard to achieve the universalisation target to be achieved through various schemes and programmes. These schemes led to dramatic improvement in the enrolments, retention or the positiverate in transition phase. The Annual Status of Education Report (ASER), 2012 observed that the 96.50 percentages of rural children between the ages of 6-14 years were enrolled in school. It is the 4th Annual Survey which report enrolment above 96.00 percentages. Whereas, the lower secondary education has very low that is 71 percentages of the total children in this age group as the world average. In India as per the statistics that is conducted by the NSSO 64th round in 2007-08 more than 28.20 million students were enrolled in lower secondary level and 16.26 million in senior secondary level; so, as a total 44.46 million students enrolled in secondary school.

Now, after achieving universalization in elementary education through the RTE Act the demand has increased dramatically thus now the next level is approaching for the same programmes and needs. Education tiers are mutually dependent on each other and it is tough to treat them separate as Majumdar (1983) argued. The student can't jump because the previous knowledge is the base for the new or back to sit in the old class is not feasible economically and chronologically. After, primary education secondary became another important step. Because, secondary education acts like a bridge between elementary and higher education and it also prepares the young learners who are in the age group of 14-18 years to ensure their entry into higher education. Secondary education is a crucial stage in India's educational system.

Demand for secondary education is increasing as a result of universalization of elementary education. The elementary graduates will face scarcity due to unpreparedness and scarcity in infrastructure in secondary stage. And, it puts infrastructural pressure on the middle level of education. Thus, low participation (that is enrolment) and bad quality at the secondary stages is hindrance to quality of higher education and schooling at the elementary education.

1.3 Historical Background

Secondary education in India as a concept came into India during the modern Indian History. Charter Act of 1813 was the beginning of education system during colonial period. Under this Charter Act, the East India Company was told that, there would be not less than one lac rupees to be spent for the educational development, revival and improvement of literature and the encouragement of the 'learned natives of India' for the betterment of 'knowledge of the science'. Later the Macaulay's Minute, 1835 and William Bentinck's 1835 Resolution were for the educational improvement in India but, are not specifically for any tier of the education system in India (Agrawal et al, 2011).

Next, the Wood's Dispatch, 1854 in Indian secondary education history is very significant from the Grants-in-aid 'and the European language introduction in the country. The Hunter Commission Report, 1882 recommended that the grants-in-aid should encourage in the field of secondary education and the government should come out from the management of the secondary education and leave it in to the hands of private players.

The crucial recommendation of the Hunter Commission was that there should be two avenues for the secondary education's graduate*first*, there should be entrance examination for the university admission and*second*, the secondary graduate should go into the vocational studies. But the recommendation was discarded at that time (Agrawal et al, 2011). The Calcutta University Commission or the Sadler Commission, 1917 under the chairmanship of Sir Michael Sadler, was held to improve the education quality of secondary education, i.e., essential for the improvement of the university. For the improvement in the quality of secondary education, the education should be in the mother tongue that was not recommended in the initial educational reforms.

The Sapru Committee of 1934, which was dealing with the issue of unemployment or the quality of education, the system of education was preparing the students only for examination and not for the occupation in life. This Committee recommended the education should be more practical and complete in itself, i.e., the vocational education required at secondary stage. The Sargent Report was introduced in 1944. In the post war years, i.e., 1944 the Central Advisory Board was set up which is the All India Advisory Body, submitted its report on the post war educational

development. It recommended that there should free education to 6 to 14 years of girls and boys. The admission to the high school should be selective; the medium of instruction should be in mother tongue. And, at the financial point of view it recommended that scholarship should be provided and out of total annual expenditure of Rs. 312,60 lakhs, an expenditure of Rs. 7,900 should be expended on the secondary or the high school. The expansion of secondary stage enrolment witnessed drastic improvement, i.e., 33,801 in 1855-56 to 370,812 in 1946-47.

After independence in India the Secondary Education Commission, 1952-53 was established which was headed by Chairman, Dr. A. Lakshmanaswami Mudaliar and other 8 members. The Commission issued a questionnaire that consisted 8 sections:

a. Regarding the aims of education
b. Organization
c. Administration and supervision
d. Curriculum
e. Methods of instruction
f. Teachers and conditions of services
g. Finances

This Report deals on almost all the relevant issues of secondary education. The Report is divided into 15 chapters regarding the aims, needs and objectives, duration, diversified curricula, different types of schools, textbook, methods of teaching, discipline, etc. Whereas, on the other side, it advised that there should be an Industrial Education Cess for the advancement of secondary education and on the other hand, the Centre should assume direct responsibility for the betterment and reorganized secondary education through the financial aid for the purpose. We have to bear in mind that secondary education is complete unit in itself not merely a preparatory stage; that at the end of this period, the student should in a position, if he wishes, to enter in the responsibility of the life and take up some useful vocation" (The Secondary Education Commission, 1952-53).

After this, in this educational reform's series the next is the Indian Education Commission or Kothari Commission on Secondary Education, 1964-66. This Commission was headed by the Dr.

D.S. Kothari and the other 15 members. This Commission proposed the new education structure one as secondary school and the other is higher secondary which have twelve years course, i.e.,two years course more than secondary school. Kothari Commission also suggested that the ratio of higher secondary schools with secondary schools should be 1:3.

"*The destiny of India is now being shaped in her classrooms. This, we believe, is no mere rhetoric. In a world based on science and technology, it is education that determines the level of prosperity, welfare and security of people. On the quality and number of person coming out of our schools and colleges will depend our success in the great enterprise of national reconstruction whose principal objective is to raise the standard of living of our people*" (Kothari Commission, 1964-66).

The Government of India accepted the advised structure of the education system, i.e., 10+2+3 in its National Policy on Education, 1968. The National Policy on Education, 1968 is a landmark in the history modern Indian education; it deals with the national education system, education for quality and equality, child centered education, operation black board, pace-setting schools, vocational education, delinking of degrees from jobs and investment of education to exceed six percent of national income. The last feature is very important from the public expenditure point of view. Later, another National Policy on Education introduced in 1986 which deals extensively on the infrastructure of the secondary education such as the adequate playground facility, construction of additional classrooms and laboratory facility, etc. And, the 1:3 ratios should be ensured under National Policy on Education, 1986.

1.4 Secondary Education and Public Funding in India

In India, education system follows the uniform structure that is, the basic education is the elementary upto class VIII and after it secondary education up to class XII and then the higher or tertiary education. The Indian education system follows a uniform pattern that is 10+2+3 after the National Policy on Education, 1986 (Tilak, 1989; Kolhatkar, 2012). The secondary education sector comes under the state list initially but, now the expenditure of secondary education is shared by the state government and the Central government. Now, it is in the Concurrent List. Secondary education is the indispensable link between primary and higher education but, even after this it is the most neglected among the three tiers of the education system in India. There is

a need for enhancement in the infrastructure and the quality improvement in the secondary schools; the Non-Recurring Expenditure[1] such as the buildings, telecom networks and computers is needed for the advancement of secondary and higher secondary graduates. Whereas, the Government of India and state governments are spending the money on the Recurring Expenditure that is most of the outlays are spent on salaries and wages. "Most of the outlays are spent on salaries and wages. Given this situation, the tax payer's money is better spent on improving literacy, primary education, secondary education and education that is not market oriented while private sector money needs to be attracted for institutions of higher learning" (Mukherjee, 2007).

The National Education Policy of 1986 has laid down that " Education will be treated as a crucial area of investment for national development and survival…It will be ensured that from the Eighth Five Year Plan onwards, it will uniformly exceed 6 percent of the National Income".
The funding of the government should be on the school education more because without school education more funding to the higher education is an irrelevant policy decision. So, the funding resource for higher education system should not come wholly under the government funding sphere. Thus, the government should ensure that the funding for university should decrease with time and universities should make themselves self-sufficient by increasing students fees, donations and endowment, linkages with corporate establishment for research, alumni contribution, royalties on books and research output, etc. and this fund should be used by the government for the advancement and improvement of the secondary education sector. But, with this the higher education funding agency that is University Grant Commission will no longer exist (Mukherjee, 2007).

But, financing education in India is not easy because it is probably the most controlled sector. The whole focus is on grants and aids and if, it has to come out from this mindset then has to face the overabundance of rules and regulations. Because, there are too many bodies which control and manage school education. Rules and regulations which regulate almost all aspects and facets related from location, student intake, course content, fees and fee structure, appointments, compensation for faculty, etc. Or, we can say that, these rules and regulations for

[1] Non-Recurring Expenditure is the expenditure which incurred once not on the daily basis or in other words such as basic infrastructure.

education are like controls imposed by the government on an industrial unit's location, capacity, raw material intake, technology, compensation package, product prices, recruitment, etc. on the back of subsidies and grants. That is Indian administrative system is suffering from over regulation and governance issues.

1.5 Rationale of the Study

Children are the basic units of the demography of any nation and decide the future prospects of the country. Parents send their children to school because they believe that they will learn and gain the skills, abilities, values and habits that will enable them to become productive adults. The country's ability to deliver these outcomes will affect its future prosperity in no small measure. The Government of India has implemented a range of initiatives to ensure that schooling is indeed accessible to all children. India is a developing nation and to acquire the economic growth with the development it becomes necessary to push the educational advancement further. For this basic and significant aim of the government, and to fulfill this aim the government has to allocate public fund through the announcement in the budget and/or through grants-in- aid. Despite these efforts the enrolment level i.e. represents the enrolled students in the schools of secondary education is not appropriate.

The important economic rationale for the public funding in the secondary education is that it contributes to economic growth and poverty reduction. These justifications cleared by the fact which is given by the employer surveys (FICCI, 2007 in World Bank, 2005) those employers who are graduated with the secondary education have the highest rate of return and so, the demand for the secondary graduates increased more than the supply.
Education creates positive externalities to the health, gender equity, and living conditions are even stronger than those of primary graduates. This is evident from the results given in the "The National Family Health Survey (NFHS) III (2007)".

The basic idea is to link between public expenditure and level of enrolment. Public investment in secondary education can overcome the education market failure and the misperceptions of the households in case of girls. According to Kingdon (2002), the household undermine the value of education for girls due to some socio-cultural reasons.To improve the quality and enrolment in

higher education it becomes necessary for the government of India to excel in the secondary education because it provides base for higher education.

1.6 Purpose of the Study

The present study has intention to search the public expenditure plan expenditure[2] v/s enrolment situation of the secondary education in Rajasthan and it takes the urban Jaipur district of Rajasthan for the case study. In the transition period what is the scenario in the government schools of the state. And, here we want to explore that how the increased demand for secondary education making impact on the enrolment.

1.7 Case Study

The study has been done majorly on the basis of secondary data but to know the problems and support the results through providing them ground of reality the case study of a Higher Senior Secondary School, Niwaru has been selected from the urban Jaipur by random selection. Under this case study we have been trying to find out the answers of the research questions that is, what is the ground of reality and analysis of the finances and enrolment of the urban Jaipur government senior secondary schools and are these results supports the results of literature survey and the data analysis.

The investment in secondary education enhance the productivity of the man and earnings, at the gross level it improves the economic growth, enhance the equity, higher societal benefits, and will clear the misperception of household regarding secondary education availing, preparation for higher education (World Bank Document, 2009).

1.8 Reference Period of the Study

Reference period for the study varies accordingly the research area and availability of the data. This study has been done for six years of the recent financial years, that is, 2008-09 to 2013-14 to find out the relation between enrolment and plan expenditure. For trends of the plan

[2] Plan expenditure is meant for the developmental activities in that particular sector such as new programmes, projects, schemes, new schools, new building, new teachers etc.

expenditure, the reference period is of ten years that is 2003-04 to 2013-14. This period is selected because initially, the central as well state government has been focusing more on the primary education financially as well as through the policy making for it. But, in the year 2009-10 the central government has launched the 'Rashtriya Madhymic Shiksha Abhiyan' that is the first step of the central government towards the goal of universalization of the secondary education. And, to know the trends in plan expenditure the reference period for the whole Rajasthan has been taken more than ten years that is 2002-03 to 2013-14. And for Enrolment trends in Rajasthan, we have been taken eighteen years data that is 1995-96 to 2013-14.

However, the reference period for case study of urban Jaipur by random selection of the Senior Secondary school, Niwaru is only for two years 2012-13 to 2013-14 for the financial condition and the subjective knowledge pertaining to students based on the present situation.

1.9 Research Objectives

- To elucidate and inspect the district level funding as well as the enrolment for secondary education by the Government of Rajasthan. The condition of different districts of Rajasthan regarding expenditure and enrolment.
- To interpret the relationship between the two variable i.e. enrolment and plan expenditure that at what degree expenditure on education impacts the changes in enrolment.
- To investigate the financial problems from the state side in transition to the higher elementary to lower secondary education. The resource crunch and other problems in lower secondary level.
- To study the changes in fund allocation after the RMSA and the other Centrally Sponsored Schemes and enrolment improvement in the state.

1.10 Research Questions

- What are the patterns of public expenditure on secondary education in Rajasthan and how does the State allocates it to districts?

- Whatthe allocation of fund are to schemes especially RMSA and the fund allocation to these by the Union Government?
- How does the allocation change in the face of rising demand for secondary education in the transition from elementary to secondary education?

1.11 Methodology and Methods

Methodology is the process by which a research or study is conducted. Methodology is define as; "to describe and analyze these methods, throwing light on limitations and resources, clarifying their presuppositions and consequences, relating to their potentialities to the twilight zone at the frontier of knowledge. Methodology have to venture generalization from the success of particular techniques, suggesting new applications, and to unfold the specific bearing of logical and metaphysical principles on concrete problems, suggesting new formulations" (Kalpan, 1973 in Best and Kahn, 2003). In other words, we can say the aim of methodology is to help us to understand, in the possible terms, not the products of scientific enquiry but the process itself.

The methodology for this study based on the positivist paradigm. The study is majorly quantitative but, at a small level, one qualitative approach is also in it. The data for the study are both qualitative and quantitative in nature.To understand the systematic pattern,secondary data has been used however, to support it at a level, we have used qualitative data. To conduct the case study, we prepared questionnaire. The qualitative approach in the study is fulfilled through asking questions to the three major stakeholders of a higher secondary school; i.e. principal, parents and students. The interview schedule of Principal, Parents and Students is the way to ask them and whichprovides reality to this study.

The study would cover the space of Rajasthan. The study would be based on secondary data as well primary data. Secondary data obtained from various sources such as SEMIS Report and Flash Statistics for secondary education, Directorate of Economics and Statistics Rajasthan, various Government Reports, Directorate of Secondary Education, Bikaner, etc., The secondary

sources and field experience, relative questions and issues were identified related to dig out the study's objectives in Rajasthan.

Methods are the tools; and with its help the researcher can explain the research proposal or thesis better. Methods are the range of approaches used in educational research to gather data which are to be used as a basis for interference and interpretation, for explanation and predication. Descriptive statistical techniques such as: Correlation, Regression, etc., have been used to interpret the results statistically and other Statistical tools like averages, percentage etc. will also be applied. The collected data from secondary sources has been tabulated, analyzed and interpreted for drawing conclusion through graphs, tables and charts. This study would be based on the concept of positivist paradigm.

1.12 Structure of Dissertation

To accomplish the objective of this study, the dissertation has been framed in five chapters. The present study analyses the public expenditure in Rajasthan from broad point of view and then frame a micro picture for the urban Jaipur district and one empirical case study of Higher Secondary Public School.

Initially, the dissertation starts with the introduction of the subject and then take up the problems under the studied area, context, historical background of financing of education and relevance of secondary education, research objectives, research questions developed for the study, purpose of the study, methodology, which structured first chapter.

Second chapter, titled as 'Literature Review' presentsa canvas of the studies concerning to the secondary education system. Here, the studies deal with the literature survey in detail and attempts to find out the loopholes in the secondary level education system in India. This chapter has divided into five major themes such as; allocation of public fund and public expenditure, federal structure in India, utilization of public fund and enrolment, secondary education and public expenditure in India and scenario of secondary education in Rajasthan. There are not clear cut absolute schemes so can overlap on each other.

Third chapter examines the 'Theoretical Framework' for the study and discusses the Endogenous Growth Theory and school education, the Theory of Public Goods, the Concept of Externality, Production of Education and the Social Rate of Return Approach. The Social Rate of Return Approach is basically based on the assumption that benefits of public investment are collective in nature because the whole society is beneficiary of this investment that is take place by the government and thus the government should focus on the equal distribution of the resources to all the three sectors of the education system.

Fourth Chapter elaborates the 'Public Expenditure and Enrolment in Secondary Education in Rajasthan' along with a discussion over the other headings like; the scenario of public expenditure in India, Centrally Sponsored Schemes and their funding, RMSA, the federal structure of the country, public expenditure and enrolment in different districts of Rajasthan. It later, explored the study through the discussion of social rate of returnfor a senior secondary school in a village area. This case study of a government higher secondary school in urban Jaipur is conducted to find out the reality at the ground level.

Fifth Chapter is the final chapter and it concludes the whole study's findings, analyses, limitation and further possibility of research in the presented area.

Chapter 2

Literature Review

2.1 Introduction

In this Chapter, we review the literature of studies which deal with secondary education. We also discuss the public funding aspect for secondary education. We begin with the statement of the problem which deals with the complexities and hurdles faced in the proposed area of study. And, then comes on the brief review of the theories of economics of education focusing especially on the endogenous growth models that highlights the role of education (i.e., Human Capital) in an economy of any nation. This part of literature review, i.e., role of education in the growth of the nation justified that why the nation should invest in education sector. India is a federal nation and it impacts the formation of major policies as for the education and industrial sector policy. Education is in the Concurrent List so; it becomes important to define the federal relations of the nation to explain the pattern of public expenditure. So, we present the survey of literature on the federal structure of the Indian constitution regarding education funding or the elements of the Public Funds that receives the secondary education at the Centre, State and District level.

Further, we will consider the literature on Education and Public Funding which helps us to consider the impact of Public Funding on the second tier of the education system, i.e., secondary education.

Finally, we providea brief review of the major studies on India and Rajasthan to understand the specific scenario of these two spaces under which the study is conducted.

Here, we have tried to present the thematic review of the literature review on public financing of secondary education. However, the proposed study doesn't cover all the areas from Economics of Education. In the study, we are trying to discuss the related literature of our study i.e. secondary education and utilization of public funds in terms of the increased enrolment in Rajasthan.

2.2 Statement of the Problem

In early years,after independence the school education was in trouble due to absence of any institution which can regulate it or the problem was about structural modification in the courses of school education as the universities was controlling as per their courses.In 1950's and 60's there was limited regulation for the school education and the functioning was smooth for the school education, colleges and university control the school education so, the functioning of school sector was below optimal and the objectives of primary and secondary school was diluted. So, there was a dire need for the body for the control and regulation with the protection of objectives of schooling and as a result the secondary education can contribute in the economic growth of the nation (Singh, 1997).

With time, the problem for school education has changed.Secondary education is the middle stage because it is in between the lower and higher levels of education. That's why it is very crucial from the policy point of view to ensure stability of the education pyramid and render input to all three stages meaningfully. One of the recommendations of Indian Education Commission (1964-66) is that expansion of educational facilities extensively on the basis of manpower needs and with an accent on equalization of educational opportunities. This recommendation is crucial in nature because India has vast demography between this age group and thus still this recommendation has relevance.

The prevalent problem of the school education system has been underfunding of resources by the state (Reddy, 2007). The present study is focusing on the problem that presently fund allocation to primary which is more than half of the total expenditure made on education whereas on secondary education, it is less than 20 percent and on the other hand, the demand for secondary level is increasing due to the universalization of elementary education with the introduction of

RTE Act in 2009. And, what are the consequences due to underfunding to secondary education will retard the economic development of the country.

Technically, enrolment is the way to know the participation of students so, a rise in it which is a positive indicator to the state but on the other side it puts pressure on the state's secondary education infrastructure. If the present way of resource allocation to education system going on then it will be difficult to employ the elementary education graduates and inputs for the higher education graduates. Basically, India faced with two dominant deficiencies: *firstly,* limitation of coverage and *secondly,* lower level of standard that is offered to the young (Sen and Dreze, 2013). Here, in this study we are dealing with the limitation of coverage problem in secondary education from the government side.

2.3Federal Structure regarding Education

India is a federal country with the strong Union. The Indian states have their own resource base and social sector which have to be funded by them as prescribed in the Constitution of India. The subjects are divided among them and these are in the Seventh Schedule of the Indian Constitution known as the 'State List'. Education comes under the 'State List' and has to be funded by the states. But, the importance of education is vast in nature thus with less expertise and resources it becomes necessary that the center should interfere and help to the states. Tilak (1989), examined federal system in India from the British period till now, that when India became independent the Constitution made Three lists: *a.* the Union List *b.* the State List and *c.* the Concurrent List. Education was placed in the 'State List' except some smaller segments of education. But,Tilak (1989) argued that education has been placed as right to all then the fund should share by both Centre and state.The school education is partially funded by the Centre government since 1976. And, the proportion of the Centre in the school education funding is increasing day by day (Shariff and Ghosh, 2000).

Reddy (2007), observed that the contribution of Centre in the financing of the plan expenditure of the secondary education has increased. The school education has taken into Concurrent List that was earlier in the State List of the Constitution. Many literature surveys suggested that what should be the educational expenditure for, e.g., 10.00percent of the central budget and 20.00 percent of the state budget should allocate (The Kher Committee in Kolhatkar, 2012).

Tilak (1989), consider the federal system in India as a complex and big system, so some scholars term the federal – provincial financial system as one big "interdependent economic unit". So, it is necessary to improve this system in terms of complexity.

2.4Allocation of Public Funds

Public finance is an important branch in economics it deals with the expenditure made by the government on the various social and welfare sector. Education is one of the most significant social issues which are significantly helpful factors in economic development and growth as well in any of the state.India is a populous nation and have highest demographic dividend with this it has more than 99.00 percent enrolment in elementary education. Now, the need is to improve infrastructure and investment in secondary education as demand is increasing. Education Commission, 1964-65 made an observation that demand for the secondary and higher education had increased and will continue to increase in the near future so, it becomes necessary to make public policy to meet this increased demand in the near future.

Secondary education in this context has served to filter out those who would not go on to higher education. On international level, the Millennium Development Goals act as the pressure on the countries to devote time, effort and resources to the elementary education thus almost all nations are moving towards achieving these goals, whereas on the other hand the expenditure on higher education is high per pupil (World Bank, 2005). Educational indicators are improving much in developing countries as of the expenditure by the state increased (Gupta et al, 1999; Mehrotra 1998). "Publicly financed education is a legitimate end of public activity, even to extreme exponents of 'classical' economic doctrine" (Vaizey, 1962).

Allocation of public fund or the utilization of public fund is the investment in education by the Central government and the State governments. By the economists, education is being looked through two different lenses- investment and as policy, and what outcomes could be possible if it is actually implemented (Peacock and Wiseman, 1966). The investment in education is different from the Conventional Capital Market[3], i.e., in education market both the stakeholders are

[3] The capital market which consider demand and supply only. Demand from consumer side and supply is from producer side.

investors but both are distinct at their own domains, i.e., the Domain-Distinction[4] (Majumdar, 2007).

The sources of expenditure is of two type, *first,* in which the union and state government allocate, *second,* in which the expenditure is incurred by the household on the payment of fees, the purchase of books, stationary and uniforms, conveyance, private coaching and maintenance in school (Shariff and Ghosh, 2000). Here, we are focusing on the first part, i.e., expenditure borne by the union and state government and on the supply side allocation of funds.

The public investment in Indian Education should be 6.00 percent of the GNP as the National Policy on Education (1968) and its revised version Kothari Commission (1964-66) had recommended. The expenditure on education is still not 6.00 percent of the GDP that's why the Indian education system is facing the resource crunch that is not appropriate for the proper growth of this crucial sector.It is important to recapture that the proposed that there should be 6 percent of the GNP should allocate to the education for the developmental requirements.

Becker (1975), examines that investment in human capital is made because of the profitability and the higher rate of return but it is very difficult to calculate the increased earnings due to that particular investment. The reason behind it is that the investment period is so long and dynamic and the economic parameter has been changing with time so, here the concept of 'Single Net Earnings Concept'[5].

Single Net Earnings =

Gross Earnings – Cost of Investment + Returns on Investment

Tilak(1989,) studied the whole Centre-State financing relationship for education. Initially, he elaborates the history of the federal structure for the financing of education and then examine about the two main bodies which has the main role in allocation of resources to education. Here, the two bodies are the Finance Commission and the Planning Commission. Erstwhile, the

[4] Domain Distinction refers that the domain of demand and supply are having different relation between the conventional capital market and public education.

[5] Gary Becker1975, *Human Capital: A THEORITICAL AND EMPIRICAL ANALYSIS WITH SPECIAL REFERENCE TO EDUCATION, p.4*

Planning Commission deals with the plan expenditure, i.e., for the growth of the sector and the Finance Commission deals with the non-plan expenditure, i.e., for the maintenance. But, from Jan, 2015 another body NITI Aayog comes into existence after scraping Planning Commission.

Tilak (1989), argues that the financing should be based on the 'Equity and Efficiency' but this is not the reality in actual terms the funding is based on the "Political Model"[6] or the political biasness towards the same party state by the Centre. And, the final solution for the entire financial problems was that the Centre should help the state to widen their economic resource base. But, he did not explain that how the state can increase their own resource base. Tilak (2003), examined that the funds allocated to education is insufficient to meet the quantitative and qualitative improvements of the education system as a whole.

James (1970), evaluated the condition of US and its old complex relationship regarding the public funding and the private funding of the school education and the quality of the education. The federal funds and individual funds (i.e., the taxpayers) cut during that period because the performances of the schools were not satisfactory or the educators had not satisfied the congress that increases funds which will improve the quality of education. According to the author, the major reason for the quality degradation of the institutes is that the institution sometimes becomes less attentive towards the goal for which they created and becomes more attentive towards the need of the employees who work there. James (1970), argues that as the State funding increases then as the consequence the control and accountability of a school to state will increase.

So, there is a positive relation between the state funding and the quality of the school, i.e., as the State funding increases the quality of school will improve. On the other side, there is massive federal support to the least capable state in the education investment. Mukherjee and Sikdar (2012), concluded that the public schools are generally suffering from underutilization and the suffering by over-capacity, i.e., the resource utilization is not as efficient as it should be because there is quality difference in the education, i.e., provided by the government and the private players. They examine it, and provide solutions for it that the government should focus on the public private partnership (PPP) but the difficulty is due to the differences in incentives motive

[6] J.B.G.Tilak 1989, *Center-State Relations in Financing Education in India, p. 477*

of the government and private player. The private player's focus on the benefit whereas, the government's focus on the welfare of the society.

On the other hand, we can say that if the government adopts the public private partnership (PPP) then the welfare motive may be diluted and the universalization of education becomes difficult because in rural areas the citizens are still not aware about the importance and significance of education. The government has to give them incentive to send their children into schools in terms of the quality education so that there should be guarantee of employment and it comes with the quality and education. But, the problem comes when the government doesn't know the optimum level of subsidy there is no general principal on the basis of that the subsidy, can be decided (Blaug and Woodhall, 1979).

2.4.1 Supply Side Allocation

Allocation of fund to public education is from two sides one is from demand side and the other is supply side. The demand side is from the parent's side that is the indirect cost in case of public education. The public education gives the feeling that it is cost free for the household and the household does not incur any cost to send their child in school. And, other is supply side that is from the government side in the public education the major cost has to incur by the government.

Indirectly, the individuals have to incur some indirect cost and, it is difficult to measure the cost of the individual. The fund allocation to education or the investment in education determined by two factors such as the individual who decide to send their child into school with some direct or indirect cost and on the other side the institution such as the government and the schools who decide whether their country or the region needs the education or not (Majumdar, 2007).

Tilak (2004), deals with the whole Indian education system with the especially on higher education and then elementary with the secondary education. The author is here trying to find out the answer that the education should be subsidized or not? Eventually, he finds out that the education should be subsidized.

Sharma et al, (2011), the secondary education essential for the nation's economic growth among the different sectors of the economy. The financing of secondary education is completely funded by the state government in India. The vocational education/ technical education are beneficial for

the industrialists, traders, transporters etc. That's why they should pay taxes and grants for the quality improvement in the secondary education. Thus, Sharma et al (2011) tells that how the expenditure base can be increased to cut the cost of education. .

The educationist developed a theory that the enrolment pressure is increasing due to universalisation of the elementary education and to meet this increased demand the government has to increase the fund. They also calculate the extra fund burden to the government has to incur (Agrwal and Gupta, 2007).

The centre's contribution is significant especially in the plan expenditure of the school education (Reddy, 2007). According to Mukherjee and Sikdar (2012), the expenditure over the secondary education increased in 11th plan period in 2007-08 it was 8.90 percent of total expenditure on the secondary education and in 2011-12 it is 14.50 percent of the total expenditure. This increment in the expenditure over education is due to increased education cess not only in primary but also in higher and secondary education. Kolhatkar(2012), tells that the Finance Commission recommended that the devolution of revenues and grants-in-aid for improvement in many public services including education.

Grants-in-aid to private aided schools constitute half of the total budget expenditure on secondary education (MHRD, various years). Intra-sect orally, elementary education accounts for a major proportion of total education expenditure, presently around 47 per cent. It has marginally increased over the years particularly after the formulation of the National Policy on Education (1986). The share of secondary education has been stable around 30 percent and the share of higher education has also remained stable around 13 percent (Tilak, 2004).

2.4.2Schemes for Secondary Education in Rajasthan

The budget allocation of Central government on education is almost totally spent through the various schemes; generally schemes have many externalities for, e.g.,Mid-Day Meal Scheme, Model School, Girls Hostel, Rashtriya Madhymic Shiksha Abhiyan (RMSA) (Mukherjee and Sikdar, 2012). It was observed that the centrally assisted schemes are the part of State Plan whereas; the second five year plan introduced the centrally sponsored schemes to distort the priorities of the state (Kolhatkar, 2012).

Initially, the Centre didn't support school education financially but after 1970, the centre started supporting the school education (i.e., the elementary and the secondary education) through the various central schemes and centrally sponsored schemes ; the major schemes are the Navodaya Vidyalayas (NVS) and Kendriya Vidyalayas (KVS), etc., (Reddy, 2007). But, both these schemes are of the extreme cases such as the NVS is for the poor and meritorious students of the rural areas and the KVS admission is restricted only for the children of the government employees. The economically efficient formulation and implementation of the schemes is very necessary for the better consequences.

As per Mukherjee and Sikdar (2012), from the broad view financial management, the sufficient resources should be allocated to a particular scheme rather than replace it by a new scheme with the same objectives and targets.In India funding pattern is such that the secondary education is wholly funded by the state government, and the schemes like RMSA and other secondary education schemes have the central and state's share in the scheme's expenditure (Sharma et al, 2011).

The issue of malnourishment among the children and its linkages with cognitive development as well as school participation is important from the enrolment point of view. In this chapter, she reviews two national programmes dealing with the nutritional intervention for children, i.e., Integrated Child Development Services (ICDS) and National Programme of Nutritional Support to Primary Education, popularly known as the Mid-Day Meal Scheme (NPNSPE/MDM), and concluded that despite overall improvement in the nutritional status of children gender differences in malnutrition continues to remain high and is more pronounced among the disadvantage social sections, such as SCs and STs (Sood, 2011). According to the benefits derived by secondary education the fund allocation is insufficient (Mukherjee, 2007).

2.5 Utilization of Public Fund

Here, the utilization of public fund refers for the changes occur after the governmental efforts or investment in education. After the investment in education what the government derived or gain can be taken as the utilization of it. The outputs from the government investment in public education are of two types:

a. The externalities derived by the society but it is immeasurable

b. The enrolment increment as a result of improvement in funding of it.

2.5.1 Improvement in Secondary Education Enrolment

As a result of the improvement in the expenditure, the enrolment improves in the schools. After, the universal scheme Sarva Shiksha Abhiyan for elementary education the demand for secondary education increased. The major reason behind the expansion of the secondary education in recent time is because the elementary education is universalized and the passed out elementary graduates are knocking the doors of the secondary school and put the secondary education system in pressure (Agrwal and Gupta, 2007).

But, the enrolment improvement is varies according to the economic background of the household. According to the NSSO Report, 2001, the low MPCE (monthly per capita income) household's children have low participation and the high MPCE leads to the high participation in the schools (Reddy, 2007). Thus, the economic disparity also leads to the social stratification in the society.

There are 44.80 million children in secondary education in India, which translates into a gross enrolment ratio (GER) of 45.81 per cent in Classes IX–XII. Most of these 44.80 million children are in lower secondary education - 28.4 million while the remainders are in higher secondary education (Linden, 2012). The latest research has done by the Hanushek and Wobmann, (2007) measured by the years of schooling in determining the future income and contribution to economic growth. Here, my argument is that in Indian case we have to focus on both the 'quality' and the 'access' because the enrolment rate is increasing at the decreasing rate and on the other side the problem of dropout. So, with the quality India have to retain its children in school.

Gender and social equity in primary education (hierarchies of access) have to be established and hierarchies in the society due to the deprived section and female inequality the government have to focus more on these sections (Ramachandran, 2004). The social hierarchy can be studied through the school type because the private schools are for the elite families whereas the poor section's children go into the public schools. Thus, Ramachandran (2004), says that why the elementary schools have lower enrolment in the government schools.

Sujatha et al (2011), are dealing with the 1950's to the 2004-05 data regarding the growth of education in terms of enrolment and the public expenditure incur by the government. The authors concluded that the enrolment is increasing in absolute numbers chronologically. The dropout rate in elementary is still very high even after the efforts to universalize elementary education. The question still persist for the elementary school that does every child have equal access to primary education but the answer for it is negative (Juneja,2011).

In terms of enrolment 1970's is considered '*GoldenPeriod'* but, after it there was sudden decline in enrolment due to the pattern of the school education had been changed. The demand pattern of the secondary education is dependent on the enrolment in upper elementary and the higher education. The growth of enrolment in secondary education has backward[7] and forward[8] linkages.

2.5.2 Infrastructural Improvement

With the increment in the secondary school enrolment pressure on the infrastructure increased. The Indian government is universalize the elementary education so the number of elementary graduate increased which lead to the infrastructure scarcity in the secondary schools because the secondary education is facing the resource crunch and not able to maintain the efficiency and quality of it (Reddy,2007). It increases the dropout of the children or the lower participation in the secondary education.

The different type of infrastructural problems to the students regarding the availability of secondary school, distance from home, availability of primary school are the major factor which are the significant role into enrolment of the student of the students into secondary education (Sanker,2011). Infrastructure improvement is required with the increment in the enrolment of the secondary education.

[7] The backward linkages are the relationship with the elementary education.

[8] The forward linkages are the relationship with the higher education in the enrolment of the secondary education.

The elementary education improvements are very necessary for the secondary school research before delving into the secondary education because, it provides feeder to the secondary education. The access and coverage at the secondary level is poor in comparison to the elementary level because the lower secondary schools are located within the radius of two kilometers and in rural areas it is the radius of the five kilometers (Sujatha et al, 2011).

2.6 Participation in Secondary Education and Public Expenditure in India

To promote and protects democratic rights; to promote cooperation instead of competition; to promote national values, and so on. Also increasing evidence shows that public expenditures on education do matter a lot in improving the education indicators in many developing countries (Gupta et al, 1999; Mehrotra 1998).

The present modern school education system started in India during the colonial period before the colonial period the education system was very different from the present modern schooling. Agrawal and Gupta (2007) discussed the historical evolution of the secondary education in India. The beginning of modern education in India under the British rule was started as Clause 43 of the Charter Act of 1813.Under it, the British government would spend on the revival and encouragement of the education to the 'learned natives of India'[9]. Macaulay in 'Minute of 1835' introducing English as their favored language or it is the key to acquire the modern language in India. The 'Wood's Dispatch, 1854' is the landmark event regarding the public expenditure in the form of Grants-in Aid to the secondary education in India.

Shariff and Ghosh (2000) are talking about the intra sectoral allocation of the public expenditure in education and argued that the Balanced Approach[10] should be adopted by the government to fund the education. But, the present scenario has changed, i.e., the country is going to achieve or almost achieved the universalisation of elementary education and now, it creates burden to the

[9] The term 'learned natives of India' is not specified in the Act.

[10] According to Shariff, Ghosh the Balanced approach is the expenditure or public investment in education in that manner that lead towards economic growth of a country i.e. as the country should spend more on the elementary education compare to the secondary and higher education as the "Japan Model" of education was at the time of 1885.

secondary education resources that turns into the lower participation of the students into the secondary education. So, there is a need to change the equation of the Balanced Approach.

Sankar (2011)analyzes the data sets of NSSO Sixty Fourth Round for secondary education; through the data she evaluates the participation rate of adolescents, transition pattern from elementary education to secondary education and the proportion of population who had secondary education. This is a data analysis based study on the enrolment and public expenditure data of the secondary education from NSS Sixty-Fourth Round.

Sujatha et al (2011) are providing their knowledge on to financing of secondary education in India, the patterns and allocation of funds among the education sector at Central level. They are sharing the knowledge that to fulfill the commitment of the universal elementary education the Government of India launch the Sarva Shiksha Abhiyan (SSA) and also considered higher education important but at a level ignoring secondary education. The expenditure in India for every sector categorized as the plan and non-plan expenditure; the plan expenditure is for the new developmental activity whereas the non-plan expenditure deals with the wear and tear of the existing infrastructure in the sector. And, the fact is that the non-plan expenditure is exceeding the plan expenditure, i.e., not a good sign because the major money goes into the old schemes not the developmental works.

Linden (2012), in the given article the author mainly focused on the access, quality and equity issues in the secondary education and later provides the solutions for these three challenges. By what logic the wage premium is larger for the secondary education graduates than the tertiary educated graduates? He doesn't explain this. According to the author it is also worth noting that, when controlling for socio-economic factors, there were no significant differences between the performance of public and private schools in India.

2.7Status of Secondary Education in Rajasthan

Rajasthan is a backward state of India and it comes under the category of BIMARU[11] states. The BIMARU states of India allocate more resources to the elementary education. The intra sect oral

[11] "BIMARU" states are the most backward states of India in major development indicators such as education, health and life expectancy etc. There are four states like Bihar, Madhya Pradesh, Rajasthan, and Uttar Pradesh.

allocation in the all education hierarchies the elementary education got the maximum funds by the underdeveloped states of India (i.e., the Rajasthan and other backward states). This implies that the secondary and the higher education suffer from the resource crunch (Shariff and Ghosh, 2000).

Sujatha et al, (2007) discuss the access and the coverage of secondary education, i.e., dealing with the infrastructural facility and also deal with the demand pattern of the various states of India. Rajasthan is a backward state educationally and economically but the demand for the higher secondary is increasing in it.

Chapter 3

Theoretical Framework

3.1 Introduction

This chapter focuses on the major theories which applied to our study. The education has utmost significance in the development of state as well as individual thus we are presenting here some empirical theories which told us that how education improves the economic growth rate of an economy. 'Economics of Education' has remained an unexplored area of study till it emerged as a sub discipline of economics after the study done by Schultz in1960s; Economics of Education is the applied part of economics in the area of education (Majumdar, 1983). "Nobody published in this field or even that nobody used the label 'economics of education 'before 1960" (Blaug, 1968 in Majumdar, 1983). The initial major studies tried to explore the relationship between economics and education that is how education is acting like a capital in the present world and thus, the concept of 'Human Capital' come into existence.

Then, the question arise if education is significant from almost all spheres of individual as well as for state then who should invest in education the individual or the state. To answer this we

explain here the concept of public good which generates positive externalities and with Sen's arguments in favor of education.

And, after knowing the importance of education we come on the issue that why the government should focus more in the welfare society on education through the argument of 'Domain – Distinction' that how these two domains of household and institution differs.

3.2 Endogenous Growth Models and School Education

According to Schultz, 1961, education has a link with economic development is a known fact for economists, but economists shy away from investment in man; no economist wants to deals with this complex area of study. In the beginning, Adam Smith supported that all the individuals of a nation are essentially parts of capital of any nation. But, there were debates at that time how a man can be like physical capital. On the other side, H. von Thunen supports Adam Smith that considering man as a capital does not degrade or debase him as a human being because it is different from the physical capital (Sen and Dreze, 2013). Investment in education is significantly different from physical capital. As it affect the productivity and skills of an individual and empowers him through enabling him with right decision power.

The New Growth theory holds that knowledge, unlike physical resources, is not subject to diminishing returns, thereby offering opportunities for continuous growth (Romer, 1986; Nelson and Romer, 1996 in Reddy, 2007).The country should focus more on the people of the nation and education should be imposed on the citizens, if the people ignore it. Endogenous Growth Theory considered education as the most vital weapon for any economy to fight with backwardness that may be economic type or of social backwardness. Education is a tool for economic growth and economic development of the individual as well as for state.

"*For a very small expence the publick can facilitate, can encourage, and can even impose upon almost the whole body of the people, the necessity of acquiring those most essential parts of education*."

-Adam Smith, 1776 in Sen, 2013

In this era of globalization economic growth and economic development are the major goals for any economy to achieve. And, the relation between education and economic growth is very significant to understand the economic growth issues of the economy. Human capital is based on the relation between education and economic growth (Peacock and Wiseman, 1966). Investment in education expands and extends the knowledge as well as awareness, leading to the advances which enhance the productivity and improvement in the health (Johnson, 1968).

But, this human capital theory is also not free from the critiques such that the role of education in the enhancement of the productivity is limited; as education serve as the 'Screening Device'[12] and provides the measurement scale for credential of the individual (Arrow, 1973; Spence, 1973). Another criticism was also leveled on the Marginal Productivity Hypothesis which takes wages as reflective measure of productivity (Bhaduri, 1978 in Majumdar, 1983). But, even after these criticisms it can be safely or strongly said that education contributes positively to the economic growth (Denison, 1962; Kothari, 1970; Psacharopoulos, 1973; Tilak, 1986).

Ravallion and Wodon (2000) criticized that the formal schooling is not feasible for the poor students because they need money for survival which undermines importance of schooling. That's why the authors are criticizing the creation of labour intensive jobs in the country like India keeps the children out from the school. But, the creation of labour intensive jobs only can give them incentive to education.

Gradstein and Justman (2000) are not dealing with education as human capital only but also the normative role of education, i.e., to provide modern education it also needs the social capital[13].

[12] "Screening Device" refers here for the producer by which he can filter out the labour according to their education level for the job in the firm.

[13] Social capital refers for the tradition and values on which the family and society run are becoming loose because of education gain by the youth. This is also one type of cost that is incurred by the parents.

There is not only the economic cost to provide education to the children; the parents also sacrifice the social capital in the form of traditions and customs of their society.

In human capital theory the individual deals as the capital and production of human capital is in the schools and commodities production in firms. Thus now, we are coming on the fact that clears the difference between schools and firms for the production of commodities of economic value and also we understand the interconnection between these two.

Whereas, according to Becker, 1975 the typical school i.e. we are taking here are the schools that provide specialization in particular school while the firms are the school which provide training to the student. So, both are the complementary element. Or, the definition of school in his words: "An institution which specializes in the production of trainees, as distinct from a firm, that offers training in conjunction with the production of goods" (Becker, 1975). Hansen (1963), concluded that the marginal rate of returns rise with the increased years of schooling but further with more schooling up to completion of Grade VIII the marginal rate of return is gradually start falling to the completion of the college. Singh (1997) is still juggling with the question "how we can align the rate of economic growth rate and the rate of growth in education?"

Education provides basic capability to the human being,which contributes in the expansion of other capabilities which enable the person and assist him in his future life (Terzi, 2007 in Chattopadhyay, 2012).

The study done by Mankiew et al, (1992), for the Solow Model is that according to Solow Model, the economic prosperity of any Nation depends on the saving and population, i.e., saving is positively related with it whereas population is negatively correlated. But, later empirical study of cross countries done by MRW[14] (1992) found that many countries with large population having higher growth rate, for it they provide the answer that it is because of human capital investment is higher in these countries. Or, we can say that the investment in education is high and high levels of investment in education lead to higher economic growth of the nation. It is known as 'Augmented Solow Model'.The economic growth in any economy is facilitated by the

[14] Mankiew, Romer and Weil (1992)

role of education and secondary education in the new endogenous growth model and Augmented Solow Model (Mankiw et al, 1992; Barro and Sala - i - Martin, 1995 in Reddy, 2007).

Public education is a commodity which is provided by the government of state and it creates benefits for the society and for the individual. The benefits for an individual is not much tough to calculate but, the betterment of the society are the social benefits and these are tough to compute.

Any policy on financial matter is based on some economic calculation or on the Cost-Benefit Analysis, here it is easy from the supply side to estimate the Cost but, it is not tough to calculate the benefits derive by the receiver but the benefits for which the government invest in education are difficult to calculate because they are subjective in nature. Therefore, the benefits accrue by the society we have to use the 'Social Rate of Return Approach' which facilitates the government decision to invest in education or not or in what way it should be.

So, here we are going to discuss the characteristics of education as public good and the externalities created by it. Then, we will focus on the social rate of return that is the most important benefit derived by any democratic or non- democratic government.

3.3 Education as a Public Good

Initially, education[15] used to be a private good that generates positive externalities. But, now with the improvement in technology and government's contribution in financing, it is considered as the pure public good as a whole. Education is a public good [Vaizey 1962; Blaug 1965; 1970; Levin 1987], producing a wide variety and vast gamut of externalities.

Definition of public good is based on two approaches: the one is juridical approach and the other is neo-classical approach[16]. According to the *first* approach, the public good is that which produced by the publically owned and the private good is the one which produced by a private enterprises. And the *second* approach, is defined the public good on the basis of the nature and characteristics (Chattopadhyay, 2012).

[15] Here, education is in the totality sense, i.e., the whole system of education.
[16] The Neo-Classical Approach is developed by the Samuelson (1954).

There is a debate on the basis of the characteristics of education as the public and private benefit derived from it. According to one concept education is public good as it improves the social benefits such as benefits across society in terms of economic prosperity, health and social cohesion and employment, etc., but it also serves as the base for the private benefits.

Educations, Health and migration are the most important element of human capital and very crucial for any society or nation's growth (i.e., social, political and economic growth). Gradstein and Justman(2000), examine that public education is not technically a public good because it is divisible as well appropriable. They are trying to examine that why generally education is administered and financed by the government and then provide the argument behind public financing that the potential significance of government intervention as means internalizing the external benefits of education, relaxing the credit coercion, and redistribution of the income through taxes.

Elementary education considered as "Pure Public Good" and higher education is considered as "Quasi Public Good" and as the structure of the Indian education system secondary education has taken as the middle between these two upper and lower level's nature. But, secondary education should be in the category of "Pure Public Good" in the changing socio- economic condition (Reddy, 2007).

Cappelli (2004) considering that the employer providing training to whom, who pursue the post-secondary education because it is the stage of "general skill[17]" that raises the wages of student but ultimately the employer have to recoup the skills of the general skilled labour. Initially the general skilled labour do not get the wage according to their Marginal Productivity but later when all the employers know about labour's ability then they will no longer get lower wages.

The benefits of education do not accrue to the individual only; it also creates external benefits to the society. The benefits accrue to the highly educated population are far more than the increase in GNP, the social benefits can't limit to the individual only who produces it (Levin, 1989). The externalities derived by education include improvement in health, reduction in population growth, reduction in poverty, equal distribution of economic growth, reduction in crime rate,

[17] Peter Cappelli 2004, "*why do employers pay for college?" P.213*

rapid adoption of new technologies, strengthening of democracy, ensuring civil rights, etc., and even dynamic externalities, which are required for technological progress and economic growth and to arrest diminishing marginal returns. These positive externalities constitute a powerful justification for public subsidies (Nerlove, 1972; Lott, 1987). The externalities due to education are 'uncompensated' benefits from education are regarded to be legion (McMahon 1987, 1999). Thus, subsidization of education is good for the individual as well as for the society.

Some other educationist and economist took education as the 'Merit Good' that is somewhat like Public Good concept. A closely similar aspect education is also a merit good (Musgrave 1959 in Lekhi, 2011; Levin 1986). Merit good is a good which consumption has to be encouraged by the government because people could be ignorant of it or can't foresee its future benefits in the illiterate society so the government has to emphasis on it.

The individuals of the society cannot be represented as the economic agent who can make rational choices in all cases that is they are not clear about their economic goals that how to achieve them. Individuals are unable to foresee their future consequence of the investment they have made and can't find out the best strategy for it (Lane, 1993).

So, public subsidization against individual's ignorance is the crucial requirement of the society. Consumer ignorance is the only factor which approaches the government interference in the society. Universalization of elementary education is based on this principle only. Subsidization is also important because it provides and enhances the equal opportunity to all members of the society.The major function of the modern state in the present time that providing equal opportunity to all in education irrespective of not only social background, but also economic background. Hence, education is an effective measure to ensure equity in the society.
It is the long time perception that "it is necessary to provide free education at all levels and also to subsidize students' living expenses in postsecondary schooling so as to guarantee 'equality of educational opportunity' " (Blaug and Woodhall 1979).

Arrow (1993) observed, imperfections in capital markets and asymmetric information are possible justifications for the public subsidization of higher education. In several developing

countries markets are 'incomplete' and credible markets do not exist (Stiglitz, 1986).Even more importantly, the lenders would be understandably reluctant to accept risk backed only by uncertain future incomes of the reluctant debtors (Arrow, 1993). Hence, need for public subsidies.Thus, it is more efficient for any government to produces and provide free education to its people so, government policy for the whole education system is required including higher education or in this field the government should act like a single body but, due to scarcity of fund in the developing country like India the government should focus at least on the school education.

The education is considered as public good in the present era of time. "A pure public good is defined as a good that one person's consumption of the goods doesn't reduce the amount available to others; that is, the consumption of a public good is non- rival" (Musgrave and Musgrave in Tyagi, 2013-14). Public good is determined by its characteristics: which are as follows:

a. The public goods are non–rival in nature that is large number of people can use them simultaneously.
b. Indivisible that is the use of commodity doesn't reduce the benefit of others.
c. Non-excludable means no one can be excluded by using them.
d. The cost of the public good may be unequal for all but the benefits derived by it are same for all.

The study done by Carnoy and McEwan, 1997, in Honduras, revealed that the direct cost incurred 43.50 percent of total costs that means the parents have to incur a substantial amount of indirect cost and the rural children start participation in from the young age as of eight thus the financial burden to make educated these child is tough.

Technically, the private good has the characteristics of rivalry in consumption and excludability. Can be written as:

$$Xp = \sum_{i=1,2,\ldots n} Xpi$$

$$(MRSxy)_1 = (MRSxy)_2 = \ldots\ldots = (MRSxy)_n = P$$

,i.e., the Marginal Rate of Substitution for the ‘n’ private goods is equal to the given price ratio ‘P’. And, the public good have the features of non- rivalry in the consumption and excludability. It can be written as:

$$X_1 = X_2 = \ldots = X_n$$

$$\sum_{i=1,\ldots n} \text{MRS xy} = \text{Pi}$$

The public good is available in same amount to all the ‘n’ number of consumer. The cost in production is the pays by all the consumers of that public good. But, they pay according to their marginal rate of substitution in consumption.

3.3.1 Education and Externality

Education creates positive externalities to the society. If the commodity that is consumed by any consumers or that is non-rival in nature means consumption of one consumer creates benefits (positive externalities) for other large number of individuals (Grandstein and Justman, 2000 Ed. by Blaug, 1968; Chattopadhyay, 2012). Externalities are differential in nature thus change the real structure of the social rate of return is important, so it leads the difference in the fund allocation decision. However, empirical work on the documentation of externalities is still in its infancy (Weisbrod 1964).

Knowledge can be considered as a public good because it is non-rivalrous and the cost of production is meager or almost zero cost of production (Romer, 1990 in Chattopadhyay, 2012). There are various literature concluded that education is the reason behind the differential growth rates that is taken as the research issue in the new growth models (Romer 1992).

The benefits derived from education are of two types, these are quantitative and qualitative facets such as the individuals who enter into useful work and the working hours they spend there are quantitative dimension here. On the other side, the productivity enhancement in the human efforts yield a positive rate of return that is the qualitative benefit (Schultz, 1961).

Education is the major reason which creates externalities to the society. Due to the presence of the externalities in education the price of education (actual monetary outcome from the education is incalculable) or the social rate of return for the society (Coase, 1960).

The debate behind government subsidization is that education generates positive externalities, as for instance people exchange knowledge through social interaction outside the conventional market transactions (Lucas, 1988 in Canton, 2007).

3.4 Sen's Argument regarding Investment in Education

"*Greater literacy and basic education can facilitate public discussions of social needs and encourage informed collective demands (e.g. for health care and social security); these in turn can help expand the facilities that the public enjoys, and contribute to the better utilization of available services*" (Dreze and Sen, 2002).

Education is a market where investment is done by keeping various possibility into the mind and this investment on society's knowledge, demand for education, psychic returns which has two component: enjoyment of education (by individual) and enjoyment as a result of education process. Overall success depends somehow on conventional wisdom of the society (Peacock and Wiseman, 1966).

Sen distinguishes between commodities, human functioning/ capability and utility as follows:

Commodity ➔ Capability (to function)➔ Function(ing)➔ Utility (e.g. happiness)

Thus, in sphere of education commodity is education which provides capability to the individual in his physical and social environment to perform well and lead to good functioning which gives the individual happiness and joy. That is, the real human development of any individual and it will also improve the human development rank at global level. That is it has its best application in education also. Capability Approach is the key to human as well as economic development education has new dimension in it (Dreze and Sen 1996; Sen, 2000; Nussbam and Sen, 1993 in Chattopadhyay, 2012). Improvement in human capabilities without the proper functioning of schools for the poor person it is also tough for him to take advantage of the market opportunities (Mehrotra, 2006).

The public investment in education does depend on the quantitative result of education investment that is improvement in enrolment, but this will not be the perfect interpretation of public funding of education. The explanation for it is provide by Jean Dreze and Amrtya Sen, 2013, in his book "An Uncertain Glory; India And Its Contradictions" that why the government should invest more in the education by their nine points to show the significance of education investment.

First, the education made positive impact on the capability to read and write and count and it keep away from the inefficiencies and vulnerability. These efficiencies are like freedom to understand the world, provide a better way to be informed and communicate and these will provide him the better quality life.

Secondly, this investment provides economic opportunities and employment prospects which come with the education level and skills learned from it. China is a nice and beautiful example of it. And, it also keeps away the individual from the crime and illicit activities (Lochner and Moretti, 2004).

Thirdly, literacy provides voice to the people in the political sphere of life, or the real meaning of democracy lies in it (but, it doesn't mean that illiteracy hasn't strong democracy). The illiterate person can't use his democratic right in proper way or the proper participation (Friedman, 1955; Barr, 1993, 2002 in World Bank document, 2009).

Fourthly, especially basic education plays important role in better health problems solution. It is easy to make eligible to understand the simple basic precaution from the disease than an illiterate population.

Fifth, education development has been the significant factor to make aware people about their human rights. Public funding that are the public subsidies are crucial in protecting democratic rights, in promoting cooperation instead of competition and to promote national values etc. (Gupta et al, 1999; Mehrotra 1998]).

Sixth, education makes people able to use their legal right because when people are uneducated then their ability to understand and can't appeal to use their legal rights or the range becomes

very limited. Educational system performs the most important function 'Manpower Production' (Anderson and Bowman, 1964).

Seventh, it improves gender equality in the family as well as in society; education significantly improves the voice and strength of women. With female education achievement the fertility rate goes down substantially (Kingdon, 2002; World Bank Document, 2009).

Eighth, education helps in reducing the caste and class barrier which is the major halt to India's social and economic development that it helps in eliminating the social evils. Stratification in society becomes loosened with making people literate. It improves the social cohesion in the society (Grandstein and Justman, 2000).

Lastly, learning and studying are enjoyable and creative activity in itself so, it can add to the quality of life in young people. That will lead to their overall development.

3.5Private and Social Rate of Return

Investment in education depends on various factors and there are two major decision makers in this sector that, whether the child will be in school or not. These two decision maker are the investors in educating the child. Here, the direct beneficiary does not invest as the producer in economics. Thus, here the concept of 'Domain Distinction' has relevance that how there are two domain in education. Economics of education deals with the application of economics in education and in the major studies the economist focus educational benefit as the private benefit or the 'Internal Benefits[18]' but, education also creates ' External Benefits' which are derived by the society (Weisboard, 1962 ed. By Blaug). Education holds the key to India's growth and socio-economic development. Educated population drives economic growth and has a positive impact on health and nutrition.

Education is an economic process but the general rules of production like the inputs and outputs are different and the output is tough to calculate because it store in the mind of the learner, the output may vary for the given circumstances but these outcome will be same incase of physical

[18] Internal Benefits refers for the increment in the earnings of the individual as the result of improvement in productivity and skill after availing education.

production of goods and services. Whereas, according to Woodhall and Blaug, 1965, 1968 education is a simple process of production.

The education can be a simple process of production if the ex- students are directly received the benefits of education, no economies of scale, capital markets have easy access to individuals and the students are perfectly aware about their job opportunities. And in these cases the government has no need to concern about the adequacy of expenditure. But, single condition doesn't meet with the real education system that's why it differs from the simple process of production as in the firms.

Investment in education is very different from the other investment it has its own kind of heterogeneity. Investment in education as an individual decision makers' derived from the expected earnings after the acquired education level. Private returns from education are higher than the social return because education is subsidized by the government. The degree of public subsidy increases with the level of education considered, which has regressive policy implications.

Here, we are doing a study over the secondary education that how after the public investment in education and enrolment and social return as a result of it. Simply, in a functional form as it can be written as:

$$E = f (Css, Cdd)$$

Here, 'E' is the enrolment in secondary education and the social returns

The "Css" is the cost which incurs by the supply side factors such as the central government's investment, state government's investment and the other school related expenditure. It is also known as the direct cost for the public or government schools.

The "Cdd" is the cost which is bear by the demand side factors i.e. the decision makers it is also known as the indirect cost in the public schools because these cost are indirectly bear by the household.

The demand side factors are not considered for the present study so; the enrolment becomes the only function of the supply side factors that is the domain of the government (both centre and the state government).

$$E = g\ (Css)$$

Education is a social good and individual decision regarding availing social good are directed by their own interest but this choice interferes with the larger social goods (Bridges and Jonathan, 2003 in Chattopadhyay, 2012). Whereas, the institution decision making for the investment in education is based on the social return thus the returns are not same for both the parties (Majumdar, 1983; 12th FYP; Chattopadhyay, 2012)).

The social rate of return is explained by Psacharopoulos, 1995. And, from government point of view it can be helpful for the assessment of the poverty reduction, health, gender equality, living conditions, equity and positive effects that have occurred due to public expenditure on education (Psacharopoulos, 1995; 12th FYP).

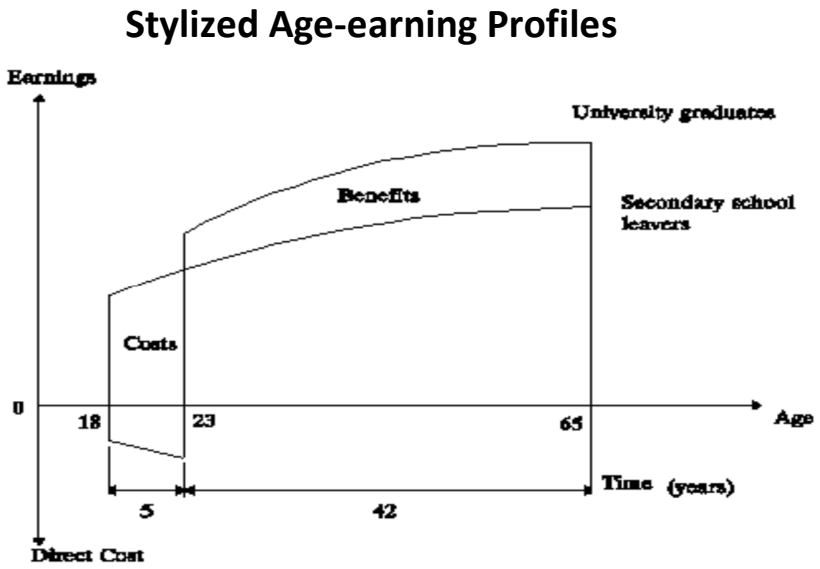
The study done by Psacharopoulos (1994, 1996) primary education is the most preferable than the investment in higher education investment especially in the developed countries whereas the investment in educating female is little higher than in educating males. Finally, he wraps up with conclusion that the returns in education are declining with the higher level or it is same as like the decline in the conventional capital that is with more investment or at higher level the returns are low compared to the basic levels. Psacharopoulos (1994) supports investment in primary education whereas, here in India universalisation of primary education achieved and thus now there is need to invest more in the secondary education as the time demands.

3.5.1. Private Rate of Return

Private rate of return refers for the returns derived from education by the individual. The 'internal rate of return' project can be used from the private and social point of view. From the private rate of return can solve the problems in the estimation of demand for education for the individual. In The market sphere, individual decisions are based on maximum 'individual positional advantage', but education grant positional advantage only at the expense of others in society (Marginson, 2004 in Chattopadhyay, 2012).

With more years of schooling the wages of educated graduates increased according to their education level. Thus the private returns increases with the education degrees. To make a person capable the education is most desirable way in providing this to him or her. Thus, providing schooling to the human being is the input to human capital formation one additional year of schooling increases their wages by significant amount. (Psacharopoulos and Patrinos, 2004 in Canton, 2007).

Figure: 3.1



This figure 3.1 is taken from the (Psacharopoulos, 1995); under this diagram we can see that how the private rate of return varies with the schooling level. Here, the cost varies with the schooling level but it have to incur by the government in the public education for the initial years of schooling after that the person is approaching to the higher wages regularly. The university graduates earning is higher than the secondary graduate according to this diagram.

The difference in gross earnings attract the economist attention and it find out later in 1970's that it was due to the differential ability between the two groups of graduates. This concept in economics of education known as "Screening" or "Filter" hypothesis (Arrow, 1973; Stiglitz 1975 in Chattopadhyay, 2012). The "screening" represents only the private benefits that are derived by the individual or how the producer knows to differentiate their wage according to their ability to work.

3.5.2 The Social Rate of Return

The social rate of return is the addition of the benefits which the society and the state also take after the investment in education. These benefits are collective in nature that means the whole society is benefited because of educational level of the individuals of society. The estimation of social rate of return is calculated after the estimation of the direct cost and forgone earnings for that period by the individual and the benefits accrue by the society. The benefits occur by the society are generally in non – monetary form such as lower fertility rate or lower mortality rate, participation of women in employment, social equity, equality etc. (Psacharopoulos, 1995).

In the public expenditure on education the government is doing or bearing the expenditure for the schooling of the children of the country the incentive behind the investment are these social benefits.

$$private\ r = \frac{\overline{W}_u - \overline{W}_s}{5\,(\overline{W}_s)}, \quad \ldots. (1)$$

Here, we are having private rate of return through the ratio of difference in mean earnings of university graduate and secondary graduate and the five times mean earning of the secondary graduate.

$$social\ r = \frac{\overline{W}_u - \overline{W}_s}{5\,(\overline{W}_s + C_u)}, \quad \ldots (2)$$

In this equation, for social rate return we are taking the ratio of difference between mean earnings of university graduates and secondary graduates and five times of the summation of mean wage earning of secondary graduate and annual direct cost of university graduates. Education improves the society as a whole and the individual who accrue the education directly. “Education is a service which transforms the fixed quantities of inputs i.e. the individuals into individual’s different quality attributes; the different quality attributes are varies according to studies that means the quality attributes such as the improvement in the understanding, externalities etc. whereas major studies are on that what is the test scores of the student or in broad terms what is the attendance rates, dropout, continuation etc. (Psacharopoulos, 1978)”. Education is divided in three sectors and all are systematically dependent to each other. In other

words, we can say that secondary education is dependent on primary education for inputs and higher education is dependent on the secondary education for inputs i.e. secondary educated graduates can only get admission into the tertiary education.

Here, in this study we can apply the 'Social Rate of Return Approach' as the education is a commodity which creates benefit for the society at large or we can say it creates externalities to the society. The government incurs expenditure to increase the inclusion more and more in the children. Government is making expenditure on education as it creates external benefit to other (McMohan, 1978). The condition according to the Psacharopoulos (1994) the fund to the sectors should be allocated in the way that the social rate of return of education should be equal in all the sectors. We can write it as:

$$\text{social (ror)A} = \text{social(ror)B} = \text{social (ror)C}$$

Here A, B and C are the individuals who are getting benefitted equally after creating social returns. Similarly, there are three sectors in education and the government has to made fund allocation to them.

$$\text{social (ror)p} = \text{social (ror)s} = \text{social (ror)h} \qquad \ldots\ldots. (1)$$

According to equation (1) all the three sectors of education creates social returns to the society and nation and by this reason according to Psacharopoulos(1978) the government should fund all the sector equally. All the three sectors of education are equally interdependent on each other for the inputs. The higher hierarchy has only the single source as input in the lower hierarchy i.e. higher education is dependent on the secondary education and secondary is dependent on primary for the input. And, if

$$\text{social (ror)p} < social\text{(ror)s} \ldots\ldots\ldots.. (2)$$

Here, in equation (2)the government allocates fund more to the secondary education compare to primary level then the social rate of return for the primary education will go down and it will make negative impacts on the secondary education's social rate of return as it is dependent on the primary education for the inputs (as the primary educated graduates).

$$\text{social (ror)s} < social\text{(ror)h} \quad \ldots\ldots\ldots.. (3)$$

In equation (3) we can see if the government allocates more funds to higher education then the rateof return for secondary education will go down. The inputs for the secondary education are absent and similarly in the secondary as well higher education are interconnected and dependent on each other. If the investments in secondary education lower than the tertiary education then there will be no relevance because tertiary has inputs from the secondary education. The all three stages of education are interlinked each other especially for the input. The upper level cannot be flourished if government invests more in the upper level. Thus the equation here is suggesting that in case of education public funding the government should fund all the three sectors equally and have to make proper balance into all the three stages.

In this chapter, we can conclude that education is the most important factor in present scenario to solve the vast gamut of problems which are faced by the any state. Broadly speaking, from economic point of view we consider only the economic benefits derived by it are economic growth and economic development. And, from social point of view the societyprogress with the help of education. The benefits derived by education suggested by various endogenous growth theories in their empirical and theoretical studies such as MRW, 1992. And later, we tried to sought that after knowing significance of education who should invest in the education and finally, with the help of 'Domain – Distinction' argument we differentiate private and social rate of return.School education has higher returns than the higher or tertiary education. That's why the role of government increased and government has the responsibility to encourage the education especially in welfare society which is in its developing stage and the people does not know much significance of education.

Chapter 4

Public Expenditure and Enrolment in Secondary Education in Rajasthan

In this chapter, we will try to find out various major and minor objectives of the study that how the public expenditure making impacts on the secondary education enrolment, the centrally sponsored schemes (CSSs) impacts positively to the enrolment in secondary education and in transition phase there is proper retention rate or not in lower secondary (class IX) from upper elementary (class VIII) in districts of Rajasthan. And finally, we will try to understand the outputof government expenditure on secondary education, i.e., the 'social returns' which improves the standard and progress of the society.

Secondary education is a very important stage from the employment as well as social empowerment points of view. Secondary education was due importance by Kothari Commission, (1964-66). Even after that it was relegated to the neglected zone; it was not so much of need at the time of Kothari Commission's recommendations because India did not have adequate elementary education graduate at that time. So, the focus should be on the elementary education. However, now the situation has changed and India has achieved almost 99.00 percent enrolment at the elementary stage. So, the next level that is secondary education has assumed new importance. The recent focus on secondary education was assigned by the 2005 Central Advisory Board of Education (CABE) Report (2005).

4.1 Federal Structure of the Country and Financing of School Education

The funding pattern is different in federal form of the country from the other political structure thus we have to study this structure first to know the funding pattern in centre and states. *"Federalism is a political device which is adopted to further ends which are always partly and sometimes predominantly economic. How far it succeeds in furthering these ends will depend partly on the nature of the constitutional arrangements, partly on the policies of the political leaders, and partly on the nature of the constitutional arrangements, partly on the policies of the*

political leaders, and partly on the effectiveness with which those concerned with economic development take advantage of the opportunities presented of them"

- J.B.G. Tilak (1989)

India is a federal country but with strong Union as enshrined in the Indian Constitution. Seventh Schedule in the Constitution of India provides the three lists in which education is the social sector which comes under the State List. The social sector programmes comes under state list but now with the changing scenario and as the importance of social sectors comes in the sphere of economic and human development the union government also start supporting to these sectors (Shariff and Ghosh, 2000). Thus, the centre is supporting to the states in education and other social sector through various schemes. Without centre's support it becomes difficult for the states to fund these sectors and education and the benefits also for there for the centre so, it becomes a necessity and responsibility for centre.

Financing of education in India is carried by two bodies; Planning Commission and Finance Commission. Planning Commission deals with the plan expenditure whereas the Finance Commission deals with the non- plan expenditurebroadly speaking plan expenditure is for the developmental activities whereas the non-plan expenditure is for the maintenance of the system. Here, we are dealing with the plan expenditure which is related to the developmental activities.

The fund allocation should be high for the state where the efficiency is high; efficiency refers for the broader coverage of school going children, higher literacy rates, fewer dropouts and failurethat is we can say that here the higher cost – benefit ratio should be there. This is one approach and another one which says that the allocation should be based on the equity in allocation according to their SDP[19] per capita income or state's own expenditure (Tilak, 1989).

4.2 Financing of Secondary Education in India

[19] SDP: State Domestic Product; SDP refers for the total value of produced goods and services during any financial year within a state. It is calculated in monetary terms.

The state shall endeavor to provide, within a period of ten years from the commencement of this constitution, free and compulsory education for all children until they complete the age of fourteen years (Article 45, DPSP[20], Constitution of India, 1950).

The state shall provide free and compulsory education to all children of the age of six to fourteen years in such a manner as the state may, by law, determine (86th Amendment, Article 21A, Constitution of India, 2002).

This article and amendment is for the right to provide free schooling to the children for elementary schooling. These two also indicate the importance of schooling for any state. And, education should be funded by the state to educate all the population who do not have access to education. Public financing becomes important for the state where approximately 50.00percent population is under multiple dimensionsof poverty and about 30.00 percent are faced with severe poverty.

…..it is precisely in the area of finance that so many nobler aims of education are defeated (Mark Blaug, 1972 in Ramachandran et al, 2009).

Thus, the justification for higher government expenditure given by Anyanwu and Erhijakpor (2007), on education is often based on its impact on:

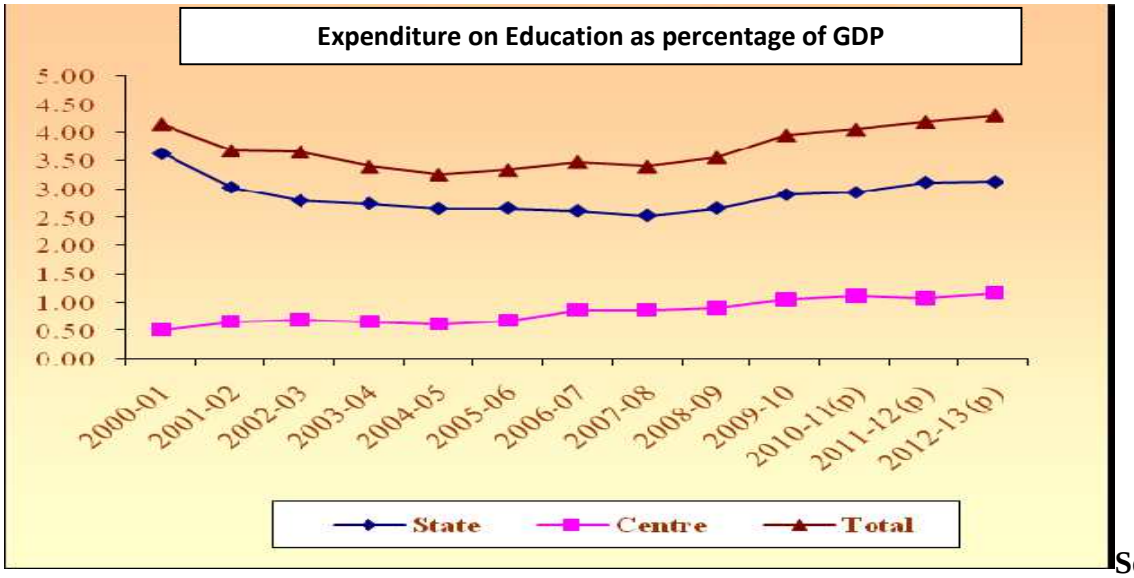
a. Individual's life time income and social rate of return (World Bank, 1995, 2009; Psacharopoulos, 1985, 1994; Schultz, 1961; Becker, 1964);
b. Economic growth (Barro and Sala-i-Martin, 1995; Tilak, 1989; Coory, 2009; Reddy, 2007; World Bank, 2009) and for economic growth to take place, a significant proportion of population should avail the secondary education (Delors[21] et al, 1996 in Reddy, 2007)
c. Fostering economic development and poverty reduction in general (Romer, 1986; Lucas, 1988; Sen, 1999; Schultz, 1999). Thus, we can say that education capital and growth estimate that an additional year of schooling raises the growth rate by 0.3 to 3 percentage points per year.

[20] DPSP : Directive Principles of State Policy, mentioned in Constitution of India in 'PART IV'
[21] Jacques Delors chairman of UNESCO's International Commission on Education for the 21st Century

Barro et al (2001) undertook a study of 100 countries during 1965 to 1995 and observed that growth was positively related to the starting level of average years of school attainment of adult at the secondary and higher levels. Due to insufficient fund the momentous objective of the education could not be fulfilled. Educational investment is essential because it serves positively both to the investor as well as to the consumer. Expenditure on education is a special type of investment that is different from the conventional capital investment because it promotes individual as well as social welfare (Majumdar, 1983).

Studies found that the investment in education have been insufficient in India. The expenditure on education should increase and now it should be more than 6 percentage of GDP of the nation whereas it is only 3.20 percent of the GDP in 2013-14. "Public expenditure on education as a proportion of GNP has been far below the national target of spending 6.00 per cent and in recent years declined from above 4.00 per cent in 1990-91 to about 3.90 percent in 1998-99" (Tilak, 2004).

Figure: 4.1



Source: MHRD, 2014,

Figure 4.1 depicts that Centre has allocated low fraction of its resource for education in terms of GDP[22]. Whereas, states have high proportions of expenditure on education with the state GDP. Centre is funding through various schemes to the States for the educational system. The expenditure on education should be more than six percent but it is less than the 4.50 percent as a whole (total that is by States and Centre) as shown above (figure 4.1). The centre was spending 0.50 percent of the total GDP on education sector during the financial year 2000-01. Now, expenditure on education by Centre government starts increasing with and it is near to 1.00 percent of the GDP during 2012-13. The total expenditure made on the education system by State and Centre as a whole is still near to 4.50 percent of the GDP.

4.2.1 Centrally Sponsored Schemes

Centrally Sponsored Schemes (CSS) are schemes that are managed by the State governments of India but are predominantly funded by the Union Government with a defined share of State Government.

For education also, the Central Government runs many CSSs. And, there are various centrally run schemes which assist the secondary education. The revised version of National Policy on Education (NPE), 1986 in the year 1992 suggested that access to secondary education, and the need to expand secondary education.Thus, the Ministry for Human Resource Development (MHRD) announced its intention to universalize the secondary education in 2001. School education was in the State List in the Constitution of India that it would be funded by the State government. But, now it comes in the Concurrent List. The financing condition of state that is the funding resources are very limited and meager to the state government. But, now the scenario is changing and the Central Government has started helping to the State government in funding of the school education (Tilak, 2006 in Ramachandran, 2009). The contribution of Government of India is generally in the form of centrally sponsored schemes.

The elementary education is benefited extensively by the centrally sponsored scheme called Sarva Shiksha Abhiyan (SSA) and secondary education is also served by Rashtriya Madhymic

[22] GDP: Gross Domestic Product; refers for the economic quantitative measure for a nation's income. GDP is the monetary value of the final goods and services which produced during a financial year within the geographic border of a country.

Shiksha Abhiyan (RMSA).There are several centrally sponsored schemes that benefit secondary school students of different categories and background. Some of these schemes are:

1. Rashtriya Madhyamik Shiksha Abhiyan (RMSA)
2. Model Schools Scheme
3. Girls Hostel Scheme
4. ICT @ Schools
5. Inclusive Education for Disabled at Secondary Stage
6. Scheme of Vocational Education
7. National Means-cum Merit Scholarship Scheme
8. National Incentive to Girls
9. Appointment of Language Teachers.

While the RMSA is a large scheme, others are comparatively smaller schemes. And some are also now merged with RMSA. Presently, RMSA is a significant scheme among all the CSSs.

Table: 4.1

Fund Allocation by The GOI for CSS to The GOR (in lac.)		
Year	**Funded by**	**Expenditure**

	GOI[23]	By GOR[24]
2007-08	811.15	893.70[25]
2008-09	2001.73	2095.99
2009-10	6239.41	6272.11
2010-11	10924.80	9247.05
2011-12	5119.97	8768.66
2012-13	25097.10	26813.00
2013-14	24174.20	N.A.
TOTAL	74368.3	62133.8

Source: Directorate of School Education, Bikaner, (Rajasthan).

Note: 'N.A.' for 'not available'

The table 4.1 shows the fund allocated by the Government of India and expenditure made by the Government of Rajasthan for secondary education. As the total fund that is allocated by the Government of India to Rajasthan Government for implementation of CSS for 2007-08 onwards and till 2013-14 is 74368.3 crore rupees and it leads to expenditure of 62133.8 crore rupees by Rajasthan Government which is quite impressive keeping in view that the expenditure is increasing from the Central Government side. The trend is quite impressive after 2010-11 as the expenditure of 2011-12 and 2012-13 shows an increasing trend and thus it will improve the quality of education as well as enrolment rate of the schools.

To explain the importance of CSSs in improving the enrolment in secondary level we have to see the enrolment growth after the introduction of various CSSs in 2009 from figure 4.5. Here, we can say that after introduction of CSSs in 2009 the enrolment improvement rate in Rajasthan is significantly high compare to other years. The enrolment trends are showing increasing and positive trend after 2009. Thus, we can say that there is significant improvement in enrolment after the introduction of Schemes to secondary education in Rajasthan.

4.2.1.1Rashtriya Madhyamic Shiksha Abhiyan (RMSA)

[23] GOI: Government of India
[24] GOR: Government of Rajasthan
[25] Here, the expenditure figure is more than the allocation of fund, the reason behind it is that when the expenditure becomes high than the allocated fund, the Government of Rajasthan discharge fund from its account and later Government of India pays.

Rashtriya Madhyamic Shiksha Abhiyan is a flagship programme of the Government of India which is a comprehensive scheme to address the problems of coverage and quality in secondary education. This scheme also helps in addressing the problem of the fund scarcity to secondary education. During the Twelfth Plan, RMSA will be made a single comprehensive scheme to address issues of coverage and quality in secondary education. This scheme is aimed to gradually extend at the higher secondary stage and should cover all schools either government school or government-aided schools. Now, after 2009, RMSA is known as the 'National Secondary Education Mission'.

For convergence and improved efficiency and in due course of time the smaller schemes shall be merged into RMSA. This should however be done without losing focus on the objectives, goals and targets of any of the previously existing schemes.

In the following example of RTE, RMSA shall develop and adopt/adapt national norms of secondary schooling for universalization of secondary education in the country. This will be required to ensure minimum quality of schooling and increase in enrolment ratio in secondary education.

Some of the significant issues that are to be addressed within the RMSA framework include important functions like construction of residential facilities for boys and girls, coverage of aided schools and higher secondary schools ,revising civil works norms to State schedule of rates, review of school infrastructure, , provision of untied funds for innovation and so on. In addition, the RMSA framework should especially focus on promoting better-quality education against clear-cut benchmarks and enable States, districts and schools to respond flexibly to their specific needs. The RMSA will make provisions for residential schools/hostels for boys and girls in existing schools to enhance access and participation of children from hilly and sparsely populated areas and from districts afflicted with civil strife to increase the enrollment rate in these areas as well as support to students as per guidelines developed by NIOS. It would include provision for schools without buildings and relax ceiling on civil works for infrastructure-deficient States with adoption of State Schedule of Rates for civil works which will improve the enrollment by providing these infrastructures. Provision should also be made for ramps and at least one toilet for CWSN so as to attract girl students.

Under RMSA, a special component will be created to identify scientific talents at the secondary level and to strengthen science and mathematics education so as to provide input for the higher education level; to take care of these students teachers will be trained and retrained on modern methods of science education is also emphasized. For the holistic development of the youths Physical education and games and sports would be made an integral part of the curriculum in schools and hence Minimum infrastructure and consumables will be made available for this under RMSA in convergence with MYA&S (Ministry of Youth Affairs and Sports) schemes to all government and government-aided schools.

School playgrounds of Navodaya Vidyalaya's and Kendriya Vidyalaya's will be opened up to neighborhood schools which will boost the efficient use of the available infrastructure. The support of Local bodies would be required and should be impressed upon to extend their support in earmarking open fields, sports stadium and community playgrounds for neighborhood schools in urban areas, as many private schools and even some publicly funded schools do not have playgrounds within school campuses in many cities and towns so as to bolster the efficacy of these schools. Such schools will be encouraged to adopt alternative sports and games activities that support physical development and nurturing of kinesthetic intelligence in their curriculum. Appointment of additional Physical Education Teachers (PETs) would be funded under RMSA in this regard. In an effort to ensure coordination and efficient implementation across a range of secondary education programmes, RMSA will become the umbrella programme and four other schemes would be subsumed under it during the Twelfth Plan. These are:

1. ICT@Schools will be integrated with RMSA to provide greater flexibility, enable optimal utilisation of resources and yield better results.

2. Inclusive Education for Disabled at Secondary Stage (IEDSS) scheme will be subsumed under RMSA and will cover children with blindness, hearing impairment, low vision, leprosy cured, autism and cerebral palsy, locomotors disabilities, mental retardation, mental illness, etc.

3. Girls' Hostel for Students of Secondary and Higher Secondary Schools will be subsumed under RMSA. The scheme also provides for a PG teacher as warden to support residents in scholastic assignments and boost their confidence.

4. The Scheme of Vocational Education will be subsumed under RMSA without any modification in the existing fund-sharing pattern and will be implemented from the secondary stage onward.

The National Scheme of Incentive to Girls for Secondary Education will be continued as a separate scheme. Schemes that are based on specific proposals from the States could easily be integrated within the composite RMSA.

4.2.1.2 Objective of RMSA

As per the announcement made by the Hon'ble Prime Minister in his Independence Day Speech, 2007, a proposed Centrally Sponsored Scheme for Universalisation of Access to and Improvement of Quality of Education at Secondary Stage (SUCCESS) also known as Rashtriya Madhyamik Shiksha Abhiyan (RMSA) was proposed to be implemented during 11th five year Plan period.

The major objectives of the RMSA are to

(i) Increase the minimum level of education to class X and universalize access to secondary education;

(ii) Quality of secondary education improves with focus on Science, Mathematics and English

This scheme has another goals and objectives:

a. Provision of infrastructure and resources in the secondary education sector to create higher capacity in secondary schools in the country, and for improvement in quality of learning in the school.
b. Provision for filling the missing gaps in the existing secondary schools system;
c. Provision of extra support for education of girls, rural children and students belonging to SC/ST, minority and other weaker sections of the society; and
d. A holistic convergent framework for implementation of various schemes in secondary education.

e. Reduce the gender, social and regional gaps in enrolments, dropouts and improving retention.

4.2.1.3 RMSA Target

The scheme envisages inter-alia, to enhance the enrollment at secondary stage by providing secondary school within a reasonable distance of habitation, with an aim to ensure GER of 100 percent by 2017 and universal retention by 2020.

As a result of this vision, The Rashtriya Madhymic Shiksha Abhiyan was launched in March, 2009 with the objective to enhance access to secondary education and improve its quality. It is a scheme meant especially for universalisation of access to and improvement of quality at the secondary and higher secondary stage in India. Other objectives include improving quality of education imparted at secondary level through making all secondary schools conform to prescribed norms, removing gender, providing funds for schools, infrastructure provision, socio-economic and disability barriers, etc.

4.2.1.4 Funding Pattern under RMSA

In CSSs the major part of funding is provided by the Central Government but, some part of it the state government also have to share. The funding pattern under RMSA in respect of normal States is 75:25 and in case of North Eastern States it is 90:10. The scheme is being implemented by a Society set up by the State Governments for implementation of the Scheme. The RMSA should continue with the current funding pattern in the Twelfth Plan period and afterward also as the need may be. RMSA should have inter-State allocation criteria for equitable distribution of Central assistance so that educationally backward States are not denied their legitimate shares, while advanced States take additional advantage due to prior preparation and as a result of which the outcomes should be achieved nationwide. The RMSA should gradually move towards funding States on per child cost basis/norms which would incentivize enrolment, retention and completion, and thus move away from techniques like inputs-based funding to outcome-based decision-making. MHRD could provide financial assistance to the State/UTs for:

a. Appointment and training of Hindi teachers in non–Hindi speaking States/UTs;

b. Appointment of Urdu teachers and grant of honorarium for teaching Urdu;
c. Appointment of teachers of Modern Indian Language (other than Hindi) in Hindi-speaking States/UTs;
d. Appointment of Urdu Teachers in any locality where more than 25 per cent of the population are from Urdu language speaking group.

4.3 Public Funding and Enrolment in Secondary Education in Rajasthan

Rajasthan has the largest area with the low literacy in the country. The finance and enrolment are the two components in funding of education and the government tries to correlate them. Because, financing to the sector is necessary to improve its efficiency. On the other hand, enrolment rates at secondary level continue to show a causal impact on growth, it is not the case with the human capital stock variable. The lack of any impact from human capital stock at the secondary level reduces the reliability of the estimate of the impact of the enrolment rate variable. Financial improvement facilitates the infrastructure and other facility in the school and scholarship for the students which improve the enrolment situation.

The data for access in secondary schools was available from 1993-94 which shows that the average distance to avail secondary education in rural area is more than four kilometers, the students have to travel daily (Reddy, 2007). Rajasthan *comes under the most backward category of states; the expenditure done on education is not satisfactory. As the case study carried out in the urban Jaipur of a higher secondary school where most of the students suffer from infrastructure deficiencies including lack of access to school because the another higher secondary school is minimum 8 kilometers away from the surveyed school.

Educational attainment has been used by several researchers to measure outcomes (Barro and Lee, 1996, 2000). Attainment can be defined as the number or proportion of school-age children that enter and complete primary or secondary school, or a particular grade. This is a superior measure of enrolment because it excludes students that drop out of school prematurely and it is not affected by the number of repeaters. There is another advantage to using educational attainment: it has a strong inverse relationship with dropout rates, and the latter are, in turn, markedly affected by educational quality (Harbison and Hanushek, 1992; Barro and Lee, 1998).

4.3.1 Public Funding of Secondary Education in Rajasthan

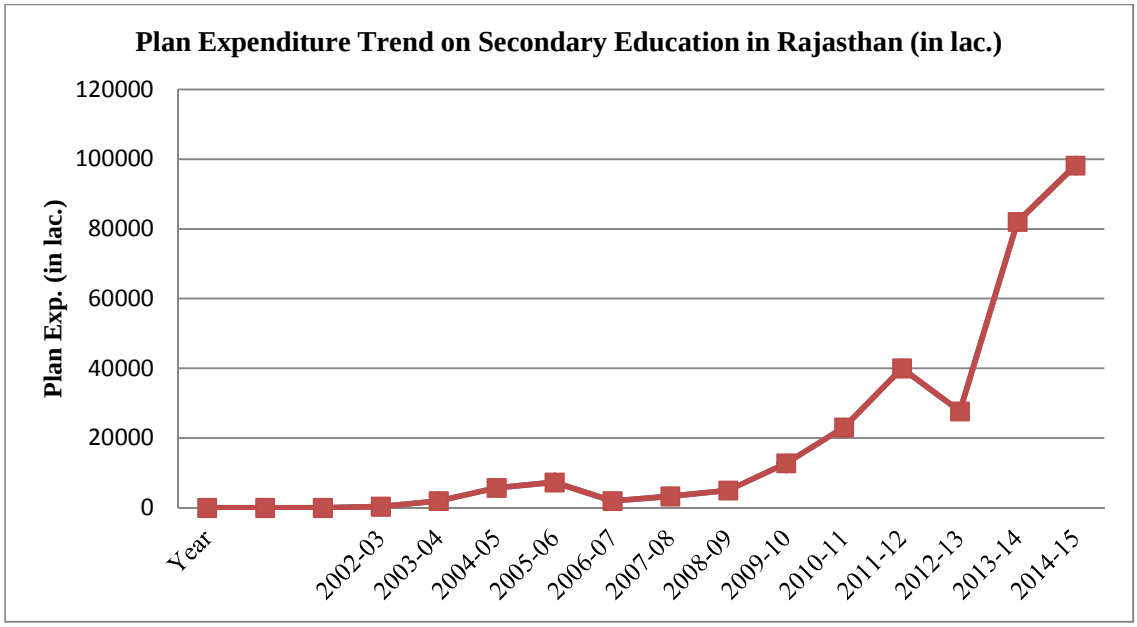
Rajasthan is the largest state of India constituting 10.40 percent of total geographical area and 5.67 percent of total population of India. The state is divided into seven division and 33 districts. In recent decades, the literacy rate of Rajasthan has increased significantly. In 1991, the state's literacy rate was only 38.55 percent (54.99 percent male and 20.44 percent female). In 2001, the literacy rate increased to 60.41percent (75.70 percent male and 43.85percent female). This was the highest leap in the percentage of literacy recorded in India (the rise in female literacy being 23.00 percent). According to the Census 2011, Rajasthan had a literacy rate of 66.11 percent (79.19 percent male and 52.12 percent female)[26]. Still Rajasthan's literacy rate is below the national average of 74.04 percent and although it's female literacy rate is the lowest in the country.

The number of secondary graduate in Rajasthan is low in comparison to elementary graduates. But, now with the improvement in elementary education enrolment and good retention rate the dropout and the problem of access will develop in the middle stage. Secondary education has low dropout rate compared to elementary education but this problem is shifted to secondary education when the elementary education is completely universalized and the continuation rateincreased.

Financing to secondary education in Rajasthan is mainly made by the Centre and State government in the public schools. Secondary education is largely funded by the State government but the Central Government also supports through the centrally sponsored schemes like RMSA in Rajasthan. The Rajasthan government helps through the various schemes and direct allocation of funds to the middle stage. The fund to the secondary education by the State government increases every year with significant amount. During 2012-13 there was a major dip in the expenditure of the government but, after that it has increased drastically during 2013-14.

Figure: 4.2

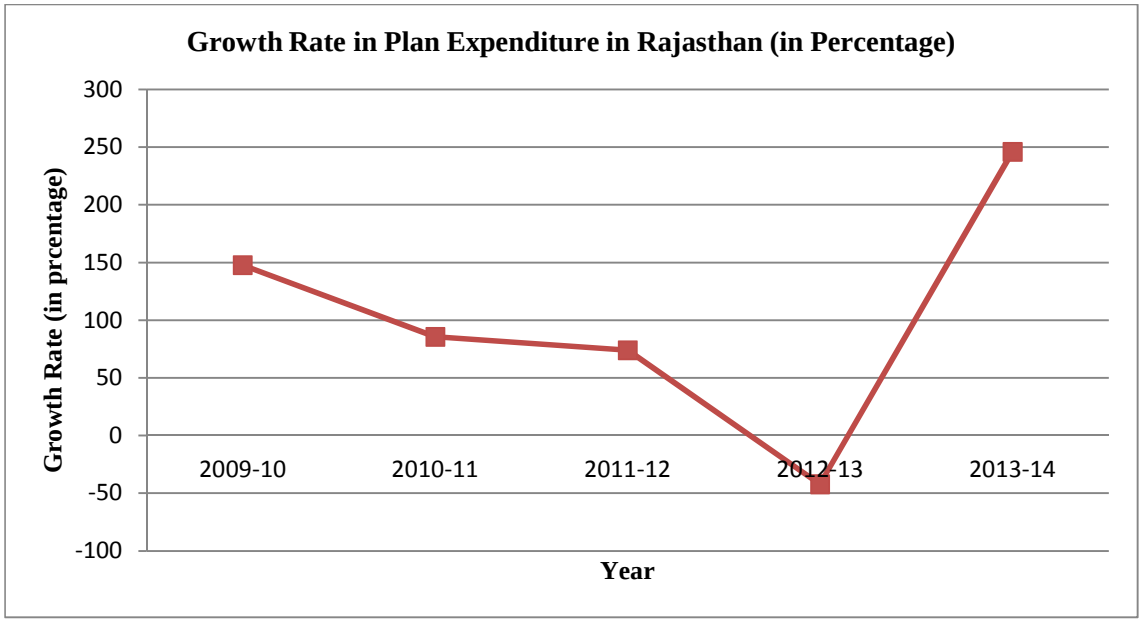
[26] Economic Review 2013-14, Government of Rajasthan.



Source: Directorate of School Education, Bikaner, (Rajasthan)

Here, we are considering the 12 years of plan expenditure from 2002-03 to 2014-15 to the districts of Rajasthan. According to this graph the initial seven years (2002-03 to 2008-09) showing the stagnant tendency but later the expenditure starts increasing trends and still the recent year 2014-15 has the highest fund allocation. The year 2014-15 showed the budget estimates. The trends of plan expenditure are showing positive and increasing trends after the 2008-09 up to 2014-15 but there is a slight dip into 2012-13 in the expenditure. After, that it is continuously increasing for the latest year 2013-14.

Figure: 4.3

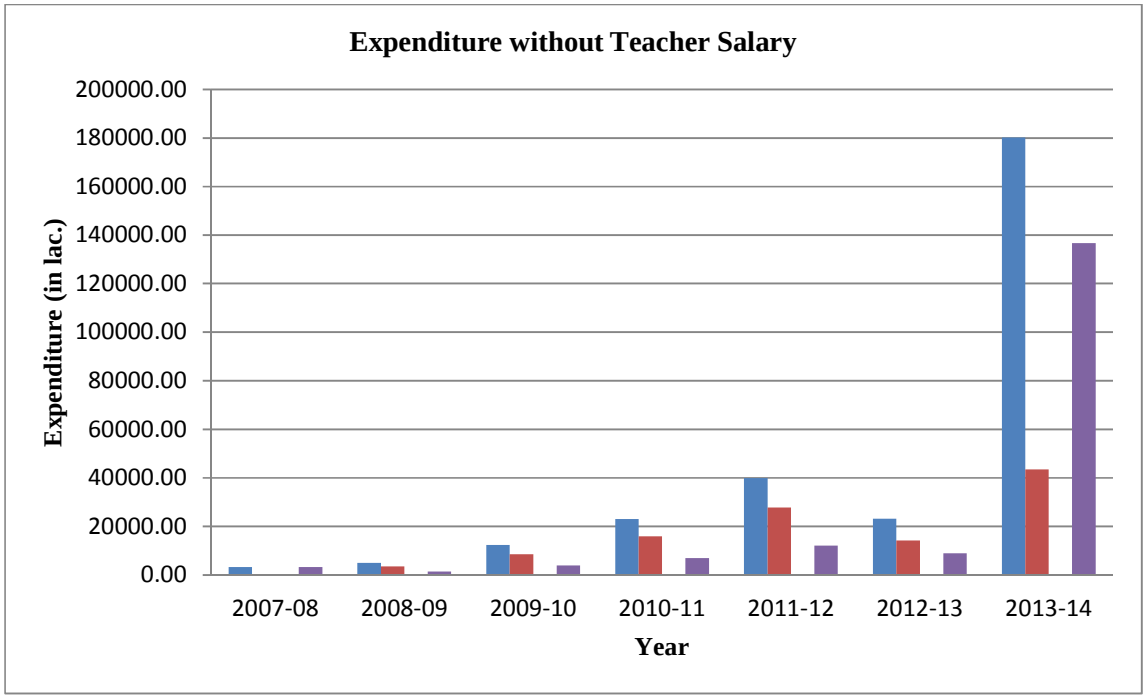


Source: Ibid.

Figure 4.2 shows the plan expenditure growth rate for the reference period of the study 2008-09 to 2013-14 for Rajasthan. Here, 2008-09 is the base year so, we couldn't find out its growth rate for expenditure. From the base year the trends depict decreasing growth rate and there is a steep dip of nearby -50 percent that is the expenditure decreased by more than half. But, after 2012-13 figure showing a sharp increment in the expenditure of 2013-14 year with more than double of 2011-12. Growth rate in expenditure for 2013-14 period is very high than the previous year's especially from the year 2012-13.

Expenditure has importance and made significant impact on the enrolment that's why with the increment in the public expenditure the enrolment improves. But, the expenditure on secondary education is with the salary of teachers that covers more than half part of the total expenditure made on the education system. So, we can say that the increment in expenditure with the teacher salary is the reality and it is not the real improvement in the expenditure on school and on student's education.

Figure: 4.4



Source: Ibid.

Note:

- Blue Bar represents the Total Plan Expenditure spend on Secondary Education.
- Purple Bar represents the Expenditure done for the development of students and school
- Red Bar represents the Expenditure on Teachers Salary

This graph is depicted between the expenditure for seven years 2007-08 to 2013-14. The expenditure is divided in different parts:

a. Total expenditure for the secondary education
b. Expenditure made on the teacher's salary
c. Expenditure only for the development of secondary education

Expenditure for the development of secondary education = Total Expenditure – Expenditure on Teacher and Staff Salary

After studying figure 4.3 we analyze that teacher and staff salary constitute a large component nearby half of the total expenditure. Thus, core expenditure on secondary education is not even

equal to the teacher's salary. As, Reddy (2007) said that the major part of expenditure is consisted with the salary component. It is also the reality in the case of Rajasthan. But, now this situation has been changing drastically for the year 2013-14 the salary component is less than 33.00 percent of the total expenditure. Per pupil expenditure is significantly higher in government and government-aided schools, driven by the much higher teacher salaries (Lindon in IIR[27], 2012).

The salary component is stagnant that is about 50 percentage of the total expenditure for the initial six years 2007-08 to 2013-14 and the overall expenditure has shown increasing tendency.This will improve and will make positive impact on the enrolment of the middle stage but, enrolment improves with the lag effect that is the effect can be seen in future. Or the enrolment will rise due to this expenditure in the near future.

Table: 4.2

Growth Rate in Plan Expenditure District Wise (in Percentage)					
Districts	**2009-10**	**2010-11**	**2011-12**	**2012-13**	**2013-14**
AJMER	157.72	49.33	94.24	-53.44	266.16
ALWAR	240.24	64.58	56.14	-65.60	286.85
BANSWARA	151.02	45.04	98.16	-33.08	94.10
JAIPUR	189.38	115.85	192.67	-87.19	1499.02
SIKAR	157.71	77.66	29.43	-76.74	413.50
DAUSA	453.05	136.30	22.33	-40.10	202.08
B.ATPUR	169.21	90.74	38.58	-50.36	267.09
J.DPUR	324.71	54.22	27.84	-3.40	158.08
BARAN	178.99	121.04	40.75	-63.64	199.47
JAI.MER	86.34	81.05	11.94	42.14	181.20
BARMER	264.25	12.17	95.67	-12.48	89.83
SIROHI	162.76	128.38	29.00	-55.55	332.48
JALOR	195.68	88.46	44.83	-6.37	91.52
PALI	100.65	111.94	14.25	-51.78	157.14
NAGOR	102.12	69.87	49.40	-41.84	129.83

[27] IIR, 2012 refers for Indian Infrastructure Report, 2012

BHILWARA	182.04	66.58	51.60	-42.39	202.90
TONK	178.04	158.24	31.07	-51.61	178.48
BIKANER	-68.61	344.55	125.98	20.43	84.20
CHURU	174.19	120.51	75.95	34.77	133.45
G.NAGAR	86.14	59.11	51.17	51.16	153.32
H.GARH	34.92	96.10	19.36	46.09	180.67
JHUNJNU	106.46	79.18	43.28	-9.63	182.94
KOTA	149.13	87.12	9.43	14.51	154.84
BUNDI	469.41	43.97	29.30	-29.52	199.54
JHALAWAR	162.28	101.07	66.15	-80.88	169.49
DHOLPUR	214.03	139.42	20.12	-62.58	248.11
KARULI	289.83	103.89	51.16	-28.43	172.63
S.M.PUR	327.06	97.56	40.82	-37.72	246.73
UDAIPUR	60.305	74.43	72.06	90.67	150.29
R.SAMAND	75.80	115.42	27.04	-11.74	147.02
DUN.PUR	528.26	21.44	40.14	-8.83	120.33
CHITTOR	48.28	33.78	149.44	2.72	116.95
PRATAPGARH	N.A.	102.49	116.39	66.85	107.27

Source: Ibid.

Note: 'N.A.' refers for the data unavailability due to the late formation of district 'Pratapgarh' in 26 January 2008.

Here, the Table 4.2 shows positive growth rate in all the districts in all six years (2008-09 to 2013-14; but, year 2008-09 is the base year to calculate the growth rate thus only five columns are there for 2009-10 to 2013-14) except year 2012-13. The growth rate for increment in public fund for the year 2009-10 is highest for the districts Dungarpur, Dholpur, Bundi, Sawai Madhopur and Karauli is more than double than the previous financial year (2008-09) except the district Bikaner which shows highest negative results. These are not as much developed districts of Rajasthan so we can make inference that the expenditure for the backward districts shows increasing trend. The table shown above is showing the growth rate in plan expenditure in the districts of Rajasthan. This growth rate in expenditure is taken for the reference period 2008-09 to 2013-14 but the year 2008-09 couldn't be represented here because it becomes base year for the next years. Some districts shows very strikingly high growth rate from the year 2009-10 like

Dungarpur, Sawai Madhopur but, only one district shows negative growth rate in the expenditure and that is Bikaner.

At gross level the year 2012-13 shows negative trend for almost all the districts of the state. But some districts like Chhittorgarh, Dungarpur, Pratapgarh, Jaisalmer, etc., showing positive growth rate for this year. Recently, the year 2013-14 shows positive increment in the expenditure for the state. Whereas according to the figure4.2 and 4.3 which shows that the overall expenditure is decreasing and with falling growth rate and the year 2013-14 has highest level of expenditure with the high growth rate in expenditure.

In the financial year 2010-11 the growth rate for the districts most are Bikaner which possessed negative growth rate in 2008-09 improves and score 344.55 percentage growth rates. But, there is especially in 2012-13 data because it shows negative growth rates. The reasons behind these are the following:

a. The expenditure on teacher salary was low. It has the important share in expenditure on education as in general it is more than 70 percent. There were more than 10,000 vacancies for teachers which were not fulfilled.
b. The fund allocated for the year 2011-12 was unused that's why the allocation is reduced from the government (from state and centre) side
c. The political instability also plays important role in the funding to all sectors. The instability was due to the state legislative assembly elections during 2013.

Table: 4.3

	Per Capita Expenditure on Student (in Rs.)					
Districts	**2008-09**	**2009-10**	**2010-11**	**2011-12**	**2012-13**	**2013-14**
AJMER	209.10	510.95	697.17	1280.72	568.79	1950.37
ALWAR	204.09	667.04	1052.12	1635.12	560.05	1992.61

BANSWARA	232.43	557.16	643.16	1193.57	762.88	1415.12
BARAN	1875.73	5478.73	10925.65	28217	3635.50	53477.96
BARMER	428.30	997.09	1427.03	1818.68	382.45	1995.07
BHARTPUR	94.45	476.45	1049.21	1245.75	771.74	1999.48
BHILWARA	197.04	495.40	826.49	1041.74	516.17	1827.56
BIKANER	214.85	886.80	1206.37	1459.09	1477.54	3365.55
BUNDI	231.62	616.45	1192.04	1488.90	526.40	1500.72
CHITTORGARH	77.66	200.37	316.86	328.49	462.68	1251.68
CHURU	227.18	776.27	801.64	1350.83	1322.85	2286.10
DOUSA	91.61	223.52	478.23	608.09	276.28	1099.98
DHOLPUR	200.36	499.83	847.23	1100.86	1032.75	1778.48
DUNGARPUR	373.95	693.13	1204.31	1234.53	568.96	1385.56
HANUMANGARH	471.15	963.96	1538.99	2169.17	1330.48	2912.08
JAIPUR	84.11	230.99	378.02	565.39	330.36	953.27
JAISALMER	688.13	1801.39	3524.95	3955.74	1875.76	5058.92
JALORE	1030.07	301.94	1174.45	2643.91	3152.29	5306.81
JHALAWAR	219.62	569.41	1175.26	1886.05	2441.79	5334.76
JHUNJHUNU	226.36	446.93	662.23	1090.44	1665.35	4033.56
JODHPUR	189.66	247.21	453.01	525.71	787.45	2040.59
KOTA	566.83	1156.89	1861.50	2441.22	2154.15	5329.10
NAGAUR	105.16	256.71	514.39	580.15	667.56	1504.23
PALI	60.56	331.59	446.90	552.99	388.02	1111.57
RAJSAMAND	239.89	625.02	1259.30	1899.18	353.42	933.81
SAWAI MADHOPUR	190.33	560.41	1185.01	1388.64	525.05	1614.80
SHRIGANAGNAGAR	106.35	370.67	641.46	882.06	676.17	1782.72
SIKAR	48.21	231.51	439.69	633.24	395.41	1416.60
SIROHI	624.90	865.83	1359.34	2084.23	3829.62	9395.46
TONK	221.48	364.37	708.14	897.74	808.21	1894.58
UDAIPUR	90.85	530.25	546.30	710.48	607.52	1380.47
KAROLI	303.30	434.63	524.38	1227.81	1306.08	2617.81
PRATAPGARH	N.A.	252.27	405.37	756.90	1218.73	2455.53

Source: Ibid. **Note:** 'N.A.' refers Not Available

The table 4.3 shows the positive and higher per capita student expenditure for the districts according to requirement but data reveal some reality that the districts which are economically and socially backward in nature such as Baran, Jalore, Barmer, Hanumangah in 2008-09. And for

the year 2013-14 Jalore, Jhalawar, Sirohi etc. shows highest per capita student expenditure. Financial year 2013-14 shows great upward rising trend compare to other financial years.

Table 4.4

Average Enrolment and Per Capita Student Expenditure

	2008-09		2013-`14	
Districts	**Enrol.**	**PCSE**	**Enrol**	**PCSE**
Developed	95460	103.5458	117884.9	1297.322
Developing	58656.4	213.3472	72830.3	1917.945
Underdeveloped/Backward	36465.36	588.8631	49892.42	4453.626

Source: Ibid.
Note: PCSE: Per Capita Student Expenditure (see Appendix IV)

The results are very clear after analyzing the table 4 that. The enrolment which is the indicator of socio- economic conditions of the district. As the district which is aware much about the significance has high enrolment. According to their development and awareness government focuses much on the underdeveloped districts. Here, after analyzing the table 4 the developed districts have higher level of average enrolment lower level of per capita student expenditure. Underdeveloped districts have lower enrolment thus the funding for these districts is much higher in compare to the other two categories of districts.

Table: 4.5

Retention Growth Rate in Transition Phase and Per Capita Student Expenditure

DISTRICTS	Retention	Rank 1	PCSTU Exp	Rank 2
PRATAPGARH	155.2033	1	57.63539	17
DUNGARPUR	98.99725	2	29.94574	32
PALI	40.76908	3	78.95352	4
KAROLI	39.85722	4	53.89039	22
AJMER	29.21524	5	56.29761	19
BARAN	28.70907	6	23.3106	33
JHUNJHUNU	22.98276	7	77.90047	5
SAWAI MADHOPUR	21.10101	8	53.36355	24
SIROHI	20.43405	9	71.95728	10
BHILWARA	20.02612	10	56.12041	20
JAIPUR	19.86988	11	62.50538	13
JHALAWAR	18.05464	12	89.27285	2
ALWAR	17.49417	13	57.73094	16
BARMER	16.80107	14	36.03238	30
DHOLPUR	15.53778	15	54.75543	21
BUNDI	15.36408	16	45.3124	26
BHARTPUR	12.14975	17	84.13452	3
KOTA	11.95869	18	56.54535	18
CHITTORGARH	10.63895	19	74.36257	7
DOUSA	9.383281	20	64.39456	12
JALORE	9.259583	21	38.80126	29
JODHPUR	8.334181	22	60.82559	14
TONK	7.511482	23	53.61467	23
CHURU	7.446476	24	58.68773	15
RAJSAMAND	5.360492	25	31.23385	31
SHRIGANAGNAGAR	2.961059	26	75.73636	6
UDAIPUR	0.869536	27	72.32088	9
JAISALMER	-0.23217	28	49.03108	25
NAGAUR	-0.84265	29	70.25205	11
SIKAR	-1.37068	30	96.61081	1
BIKANER	-5.04243	31	73.37314	8
BANSWARA	-6.15921	32	43.51516	28
HANUMANGARH	-8.39802	33	43.94888	27

Source: Ibid.

Here, in table 4.4we will discuss the districts retention growth rate and per capita student expenditure. In this table 4.4 the growth rate for retention and for per capita student expenditure is for the years 2008-09 and 2013-14. But, due to public expenditure data unavailability for Pratapgarh district year 2009-10 has taken for the year 2008-09. That is explained as below:

Shri Ganganagar, Jaipur and Kota these three districts have very high HDI value 0.809, 0.779, 0.787 respectively. Shri Ganganagar district has low retention growth but the per capita student expenditure is high, whereas Jaipur district has 11th rank in retention growth and 13th in per capita student expenditure

The districts with high retention rate in transition are generally located in the south and south east of the State for, e.g., Pratapgarh, Baran, Dungarpur, Pali, Karauli, etc., But, when we have a look on per capita student expenditure growth rate we find out thatPali district has high retention in government lower secondary and per capita student expenditure growth rate has 4th rank,i.e., with high per capita student expenditure high level of retention in government schooling. Pratapgarh is the newly formed district of Rajasthan it has highest retention and 17th rank in per capita student expenditure, i.e., not very much high per capita expenditure.

Another important result from the study is that Kota district has 18th rank in retention growth and also 18th rank in per capita student expenditure. To explain it, we can say that Kota district is a coaching hub for the secondary graduates, so the change in retention is not much higher for the government secondary school. Sikar district also has similar case study to district like Kota district. In Sikar district coaching institutes at a small level for secondary graduates are persisting but on the other side the villages of it not much developed so the students done their primary from government school but in secondary stage enters into private schools or coaching institutes thus the retention growth rate in government secondary schools is negative and has 30th rank whereas, according to its backwardness the per capita student expenditure is very high or has 1st rank.

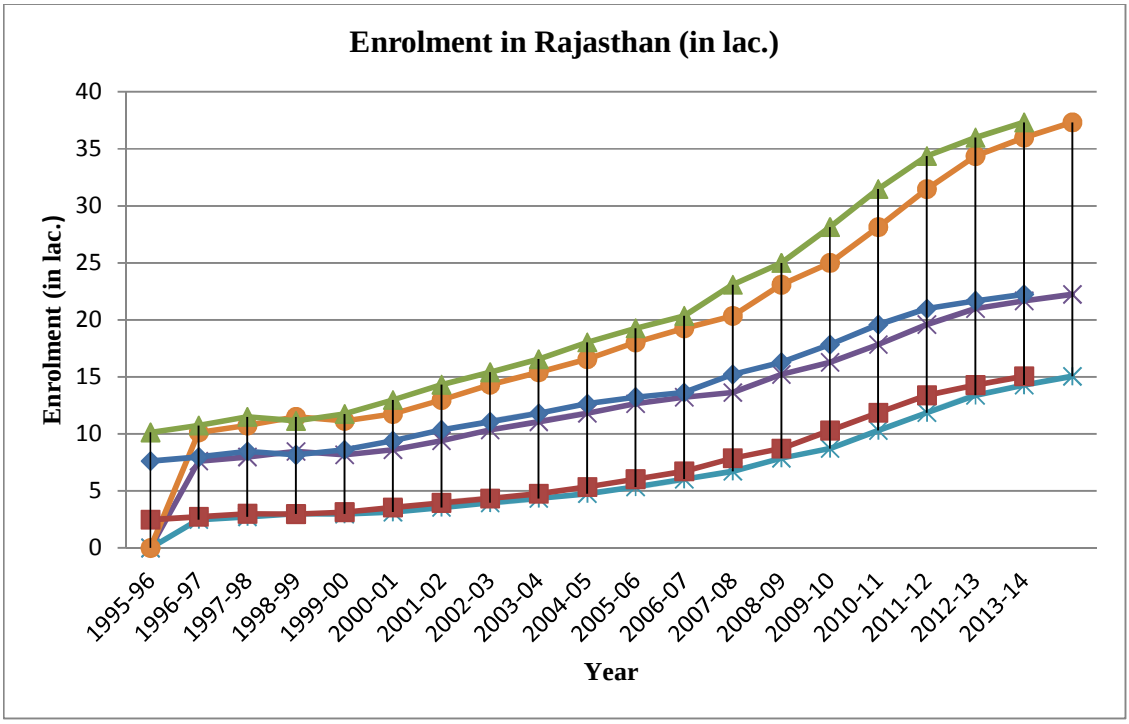
Per capita student expenditure become lower because of many factors such as population of students who are in secondary stage in the district, the private schools in the district, the income level of households in the district, etc. thus, we become vulnerable in finding out results from

single factor, i.e., per capita student expenditure. Here, as per this table 4.4 we can infer that the public expenditure to the district depends on various factor but, the single factor for it, is that the backward districts of Rajasthan get some bit higher public fund.

4.3.2Enrolment in secondary education in Rajasthan

Rajasthan is a backward state of India thus the growth pattern shows positive trends in almost all aspects. The enrolment is the only way to know the condition of formal schooling for any particular place.Enrolment in secondary education in Rajasthan shows increasing trend from the beginning of the 90's decade.

Figure: 4.5



Source: Ibid.

Note:

- the Red Line shows the girls enrolment
- the Blue Line shows the boy's enrolment
- the Green Line shows the total enrolment

Here, figure 4.5 is depicting the enrolment trend for the period of 19 years from 1995-96 to 2013-14 as available in the source. This whole data is showing results for Rajasthan as a whole. The trends of enrolmentShows the stagnancy during initial six years, 1995-96 to 2000-01 but, later start increasing the enrolment. The gender inequality continues to persist in the same manner that is even after increasing the overall enrolmentOf girls' enrolment also increase but the difference in girls and boys formal schooling is continue.

Table: 4.6

Growth Rate of Retention and Transition Phases in Rajasthan (in percentage)							
Districts	**2007-08**	**2008-09**	**2009-10**	**2010-11**	**2011-12**	**2012-13**	**2013-14**
AJMER	75.52	32.26	60.76	80.54	66.49	81.43	116.23
ALWAR	127.10	40.03	66.73	57.20	58.05	102.57	89.63
BANSWARA	249.72	249.72	151.28	186.62	101.92	51.41	110.25
BARAN	93.83	23.62	37.87	19.35	92.50	60.56	83.44
BARMER	116.80	48.59	101.02	110.86	58.62	71.82	105.63
BHARTPUR	99.45	99.45	34.46	65.99	33.26	71.10	55.96
BHILWARA	99.72	99.72	54.56	95.73	125.59	55.70	96.47
BIKANER	76.42	64.17	61.62	52.07	77.70	31.66	49.54
BUNDI	105.79	64.28	106.88	55.25	65.87	123.31	131.36
CHITTORGARH	145.12	145.12	98.95	111.34	92.08	54.93	124.13
CHURU	61.25	46.03	63.26	62.20	65.32	66.82	65.92

DOUSA	128.94	47.29	55.45	67.02	55.88	90.10	74.06
DHOLPUR	83.60	83.60	24.80	41.60	20.47307	98.51	39.55
DUNGARPUR	157.24	157.24	70.88	80.05	88.92	53.41	118.28
HANUMANGARH	65.80	65.80	55.49	41.27	41.27	57.75	36.15
JAIPUR	73.90	1268.34	26.65	42.83	61.08	93.45	91.43
JAISALMER	102.19	102.19	41.56	42.68	48.68	78.73	38.57
JALORE	101.46	76.975	99.20	80.51	56.08	88.65	119.85
JHALAWAR	178.99	178.99	75.70	113.35	102.79	54.06	144.21
JHUNJHUNU	31.42	31.42	31.33	50.79	43.82	57.38	74.07
JODHPUR	111.07	62.81	80.35	110.62	48.22	97.63	93.72
KOTA	74.19	42.71	52.85	44.79	66.66	111.51	75.13
NAGAUR	102.72	77.51	82.71	45.45	58.66	73.44	74.30
PALI	63.19	26.81	62.33	73.35	53.09	132.39	148.23
RAJSAMAND	99.64	99.64	73.07	118.09	45.27	64.34	137.69
SAWAI MADHOPUR	131.26	131.26	22.53	27.49	30.99	69.75	69.43
SHRIGANAGNAGAR	73.67	73.67	46.51	54.43	23.96	78.60	41.80
SIKAR	67.38	65.78	40.43	42.55	60.51	90.57	61.40
SIROHI	47.76	60.58	62.93	52.76	52.09	160.83	153.50
TONK	132.05	77.18	94.06	107.85	51.92	91.41	110.87
UDAIPUR	50.08	102.35	85.76	81.79	63.12	85.07	106.88
KAROLI	90.57	10.37	191.01	27.56	78.06	45.99	55.52
PRATAPGARH	N.A.	N.A.	164.72	56.05	67.77	98.63	108.25

Source: Ibid.

The table above shows growth rate in the retention rate in class 8th and 9th. The first i.e. class 8th enrolment which is the last level of elementary education whereas, 9th class is the first level for the secondary education. We want to find out here that at what level the students of government schools retain in the secondary education. From elementary to secondary education is a transition phase and transition phase shows the dropout more but, if we consider the data here in Rajasthan then we find that secondary education has more of the enrolment in the lower secondary stage.

A case study of Higher Secondary School, Niwaru, Jaipur

The school is situated approximately 8 kilometer away from Jaipur city. In this higher secondary school the enrolment in 9th class is more than in comparison to 8th class. It is mainly due to the reason that, there is no other higher secondary government school in the area of 8 - 10 kilometers from this school. According to the students and principal there are primary private schools are in abundance at the primary stage but the higher secondary non-aided are not much in village. At the primary stage parents send their child in nearest private primary school but due to lack of fund they withdraw their child from there and in secondary stage put them in government higher secondary school.

Table: 4.7

		Rank in Transition Phase Growth						
Districts		**2007-08**	**2008-09**	**2009-10**	**2010-11**	**2011-12**	**2012-13**	**2013-14**
AJMER		22	26	22	10	11	20	9
ALWAR		8	23	16	15	20	10	18
BANSWARA		1	1	2	6	32	9	11
BARAN		18	30	31	33	2	26	20
BARMER		9	17	8	2	19	23	14
BHARTPUR		17	25	17	28	7	27	26
BHILWARA		15	16	10	1	25	13	6
BIKANER		21	12	21	19	6	33	31
BUNDI		11	11	7	17	12	6	7
CHITTORGARH		4	3	6	7	26	5	3

CHURU		29	20	18	14	13	25	24
DOUSA		7	18	23	13	24	17	23
DHOLPUR		20	29	28	32	1	30	30
DUNGARPUR		3	9	15	8	28	7	1
HANUMANGARH		27	15	29	27	21	32	33
JAIPUR		24	24	33	25	16	14	17
JAISALMER		13	22	27	20	3	31	32
JALORE		14	6	9	11	23	18	8
JHALAWAR		2	7	5	5	27	2	2
JHUNJHUNU		32	27	26	24	22	21	19
JODHPUR		10	13	14	3	33	12	16
KOTA		23	21	25	23	10	8	21
NAGAUR		12	4	13	21	18	22	22
PALI		28	28	20	12	29	4	5
RAJSAMAND		16	8	4	22	14	3	15
SAWAI MADHOPUR		6	31	32	29	8	24	27
SHRIGANAGNAGAR		25	19	24	31	4	29	29
SIKAR		26	10	30	26	17	16	25
SIROHI		31	14	19	18	30	1	4
TONK		5	5	11	4	31	15	10
UDAIPUR		30	2	12	9	15	19	13
KAROLI		19	32	1	30	5	28	28
PRATAPGARH		N.A.	N.A.	3	16	9	11	12

Source: Ibid.,NA = data not available

This table 4.4 shows the rank in the growth rate in class 9th in government secondary school. As per this data analysis in all the years the backward districts of Rajasthan show high rank into such as in 2007-08 and 2008-09 Banswara shows the first rank into the transition that is students from non-aided to aided have increasing trend. Later, in 2010-11 Bhilwara has highest growth rate in the transition phase. There are more students coming in the lower secondary stage, there can be following reason to explain it:

a. Enrolment increases in the lower secondary stage because at elementary level the non-aided schools are very high in number. Whereas, at secondary level there are comparatively less schools. So, when the student completed its schooling from elementary and will preparing to

enter into secondary stage there is less number of private schools. Thus he has to enroll himself into government secondary schools.

Table: 4.8

Schools in Rajasthan

Year	Govt.	Aided	Non-Aided
2007-08	3398	23	4888
2008-09	6096	23	5487
2009-10	6241	23	6196
2010-11	8063	24	6858
2011-12	8128	0	7559
2012-13	8169	0	7497
2013-14	8839	0	7445

Source: Ibid.

There are three reasons for the significance to complete demand for secondary education (12th FYP): first, the secondary education serves the purpose of employment in formal and informal sectors of the economy. Second, it is the important connecting stage to higher education. And lastly, it also accomplishes the need for primary school teachers "Secondary education is useful when it is fulfilling the important needs of the country such as: Providing teachers for the primary schools and preparing mature students for higher education" (Agrawal et al, 2011).

Thus, we can see this table which shows the number of schools where the number of schools in secondary education higher in government sector rather than in the private sector.

b. Rajasthan is a poor and backward state. The household of any place have a perception regarding quality of schools that government school have lower level of quality and private school provides more quality education for their child but on the other hand they are not very elite. Thus, they send their child to non-aided school in the early phase (elementary level) but terminate in government schools due to the higher fee into non-aided schools. Cameron and Heckman (1998) find a high correlation of family income to children's school enrolment at all levels, but the correlation weakens and disappears as

soon as family background variables and especially a measure of students' IQ are introduced.

c. The government schools are not much at the primary level much in numbers whereas, the private schools are very high in comparison. And at the elementary level the child is not able to go with much distance school so they have to attend in the nearby non- aided school from their house. But, later at the secondary level both (Government and Non-aided) schools are similar in quantity thus the student has to go in government school.

The growth rate in the retention is high for almost all the districts of Rajasthan for the given years. The elementary graduate goes to the government secondary school and thus the enrolment at lower secondary is almost double or more than double for many districts.

4.3.3. Expenditure and Enrolment of Secondary Education in Rajasthan

Expenditure and enrolment are the two important variables of our study. The government invests much on secondary education system as on the formal schooling. The formal schooling is the only way to improve the number of educated school graduates at this time. For government it creates social returns which improve the economic growth and development trajectory of the state.

Here, we find out the relationship between the expenditure and enrolment. To find out this we have to take the help of the tables and figure which are as follows:

Table: 4.9

Year	Expenditure	Enrolment
2002-03	339.11	15.42
2003-04	1921.65	16.57

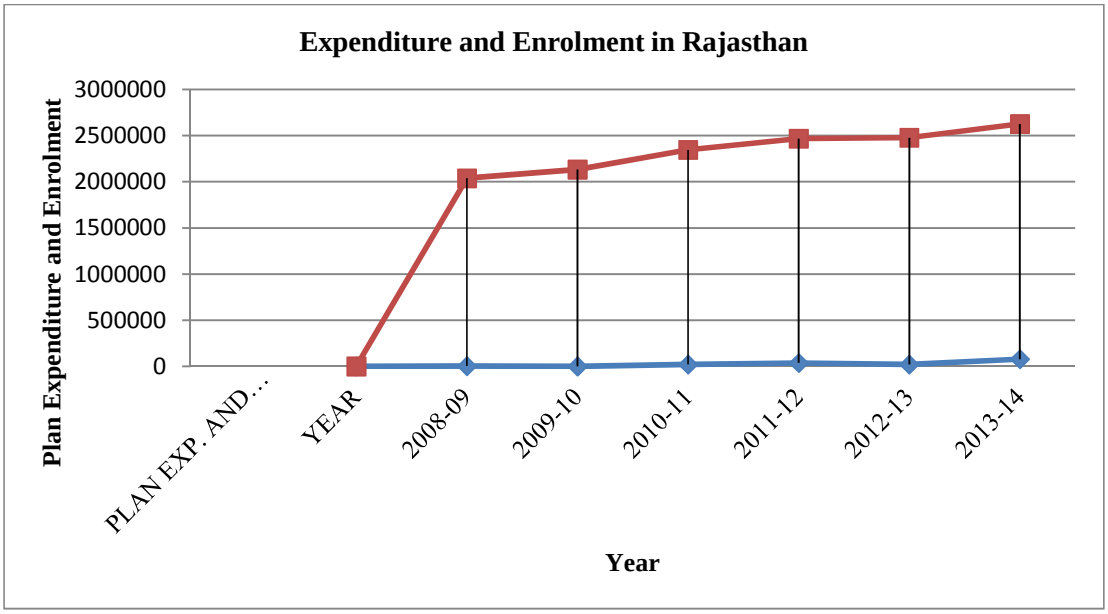
2004-05	5729.30	18.04
2005-06	7290.89	19.28
2006-07	1973.79	20.37
2007-08	3291.95	23.10
2008-09	5000.00	25.01
2009-10	12767.70	28.14
2010-11	23002.80	31.47
2011-12	40036.00	34.38
2012-13	27677.50	35.98
2013-14	82027.90	37.33

Source: Directorate of secondary Education, Bikaner, (Rajasthan)
Note: The Expenditure and Enrolment both in lac.

This table is showing Plan Expenditure and Enrolment for secondary education for ten years 2002-03 to 2013-14 for Rajasthan. The data in above table shows strong positive correlation that is with the increment in expenditure the enrolment situation improves.

The correlation value for this data is 0.815239.The correlation value is strongly positive we can infer that with the improvement in expenditure to education the increase the enrolment as well. As the expenditure increases the enrolment for secondary education also increase.

Figure: 4.6

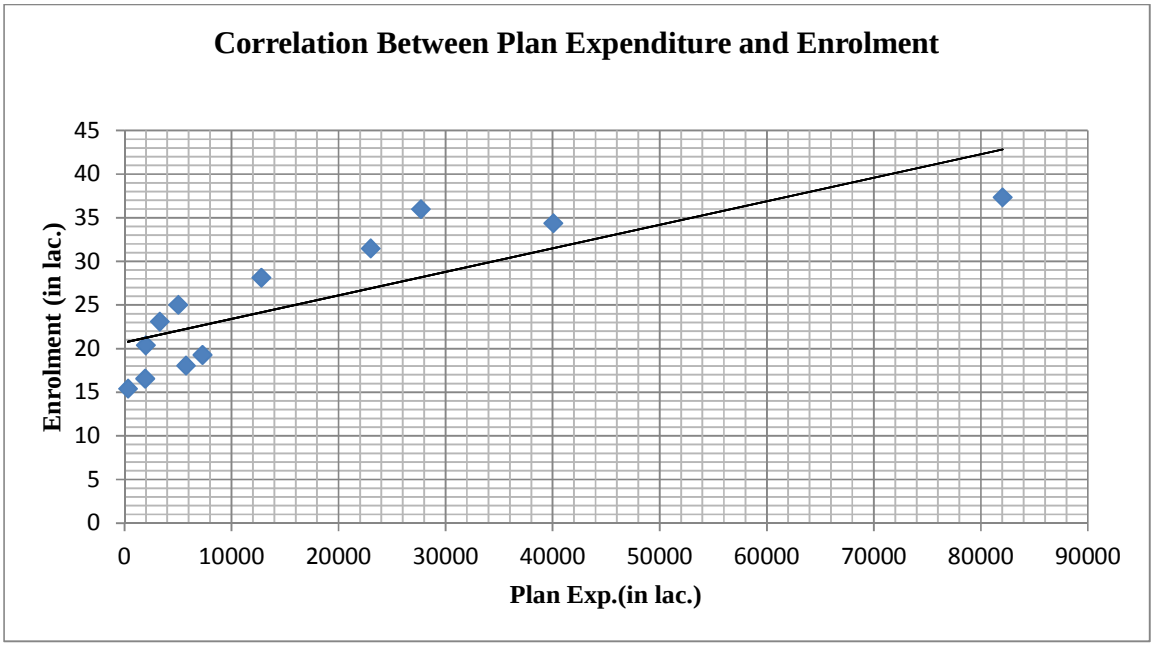


Source: Ibid.

Note: Here, the Red Line represents the enrolment in secondary education in Rajasthan and the Blue line shows the plan expenditure for the state.

The Figure 4.6 above is showing the positive relation between expenditure and enrolment. As the expenditure rise the enrolment also positively changed. We can see through this graph that enrolment which shows increasing trend in a linear form. There was a dip in the expenditure during 2012-13 financial years according to the table for expenditure and enrolment in secondary education. From the beginning the enrolment line is showing positive trend and after showing stagnancy in 2012-13. And, later again showing increasing trend in the year 2013-14.

Figure: 4.7



Source: Ibid.

The enrolment in schooling is the desirable variable for this study it is dependent variable. It is influences by two sides that are from demand side and the supply side. Demand side is the

Household's side which contribute in the public education indirectly. We here concern about the public funding in public secondary schools. It can be written in functional form as:

$$E = f (Css, Cdd) \qquad \text{…..(1)}$$

'E' is enrolment in secondary education

'Cdd' cost from demand side. We take 'Css' cost from supply side into consideration that is done by the Government.

Thus the function will be;

$$E = f (Css) \qquad \text{…… (2)}$$

According to the data set in table 4.6 the correlation between the public expenditure and enrolment is 0.815239 that is a strong positive correlation.

As the expenditure increases the enrolment also improves accordingly. The pattern of investment has been similar in almost all countries. There may be two reasons for it may be due to domestic pressures or for the pursuit of the Millennium Development Goals, countries have devoted time, effort and resources to elementary education; and higher education has long received generous (per pupil) funding but remained small and elite (World Bank 2005).

4.4 Social Rate of Return in a Higher Secondary School

Any democratic nation spends money on the social sectors to improve the societal conditions which indirectly beneficial for the health of the individuals. We cannot calculate the social rate of return thus we have to study it from the ground level changes in the society.

According to principal, teachers and students the majority of students are from the economically and socially weaker section. Most of the students in elementary as well as in lower secondary hailed from socially weaker section and their parents works into informal sector. The majority

of the parents are unaware about importance of education but they just attracted due to the scholarship to the students and so, allows their child to remain in school. Some students even after adversary shows interest in study and want to continue even after higher schooling. But some that is they are not much in numbers they are only for the scholarship and they deny that they will not continue.

As per the parents the children from their community who doesn't go school either indulged into unlawful activities or working with their parents as a labour and the problem of early marriage is also therein the children who are not in schools. The girl student are benefited most to the government higher secondary school because the number of girls in secondary classroom is quite high than boys. The reason behind the high number is that the parents think that non-aided schools which run by private entities are best in quality so they send their boy child to non-aided school and doesn't want to waste money on the girl child and the girls are also receives scholarship under 'Cycle Yojna' for class 9^{th}'s girls. Thus they send them into government higher secondary school. The students get food under the 'Mid-Day-Meal' Scheme that is nutrient and the purified water provides the 'Akshaya Patra' NGO.

After, knowing the Federal structure of India we came to know that how the Centre Funds to the States through CSSs; especially, we have elaborated here the RMSA which is the important CSS of the Central government. RMSA makes a clear impact on the enrolment trend of the state. Then, we come on the financing and enrolment situation in the districts of Rajasthan. We have find out some conclusive result here and find out some pattern with the help of data in all districts. That is Funding improves the enrolment in the schooling is proved according to the study conducted above so, to improve the social returns the government should focus on the public funding to the school system. Major part of the fund is provided by the state government thus the union government should have concern about the lower level of resource base for the states. Or, either Centre should improve the financing tools for the state

Chapter 5

Conclusion

5.1 Overview of the Study

Research in education is important from the policy point of view and it is practically the most vital tool to alleviate the society from its backwardness. Policy formulation for education is the way to realize the development goal of any nation. Education plays major role to achieve the developmental goal of the country. Secondary education needs the attention for the economic growth as well for the individual and social development.

Public funding and enrolment in secondary education has been the basic theme of the study. The study is conducted for the districts of Rajasthan to know the enrolment and funding by the government for the secondary education. With the universalisation of elementary education the government afford to the complacent as the enrolment rises which demands a commensurate increase in public funding next level of education system.

Rajasthan is selected as the research space as it comes among the backward states of the country. The education status which is measured by the literacy rate which is also low when compared to the national literacy rate. We discuss the significance of the middle stage in the Third chapter.Besides some districts of Rajasthan almost all perform poorly in term of enrolment in secondary education. After, discussing enrolment and public expenditure we have found the changes in the enrolment in transitional phase in class VIII and IX.

5.2 Research Findings of the Study

After, conducting the research for the particular area (as we have done for the secondary education) we discuss below our major and minor observations and conclude with an assessment of the emerging scenario.

5.2.1 Trends in Public Expenditure and Enrolment in Secondary Education

After, studying the trends in the public expenditure on secondary education the overall pattern indicates that the expenditure has been increasing in all the districts of Rajasthan however the rate of rise show wide variations. The major dip in public expenditure was in year 2012-13 due to a cut in fund allocation by the Central government, whereas, enrolment in secondary education continue to show continuous increasing trends and improvement in 2013-14.

According to literature, we assume that with the increment in the public expenditure, enrolment also improves, as evident fromthe correlation coefficient which is strongly positive. The correlation coefficient is 0.815239 for Rajasthan as a whole. Almost all the districts of Rajasthan show positive correlation in the public expenditure and enrolment for whole reference period. It indicates that if the government invests in formal education then it will improve the enrolment situation definitely. Hence, to improve the formal schooling the government should invest more in the secondary education.

5.2.2Centrally Sponsored Schemes and Enrolment in Secondary Education

Centrally Sponsored Schemes are run by the Central government to improve the access and quality of school education system. RMSA, a major and an important scheme, which is run by the Government of India. RMSA is playing important role in usheringin transformation to overcome the gloomy situation in the school education of the state.

After, RMSA the fund allocation to secondary education improved in the state of Rajasthan. Centre is playing an important role in improving the secondary education scenario.

5.2.3Retention in Transition Phase and Per Capita Student Expenditure

In the transition phase the enrolment in lower secondary increases at a much higher rate in almost all districts with varying degree but, the interesting fact is that this rate is not so much for

the urban and economically advanced districts of state. The reason behind is that number of private schools are more in the advanced districts of State. So, the enrolment growth in government secondary schools in these developed districts such as Jaipur, Alwar, Udaipur, Jodhpur, Ajmer, Kota, Shri Ganganagar, etc., is low in comparison to backward districts such as Banswara, Dungarpur, Baran, Pratapgarh, etc.

We have categorized the districts according to socio – economic indicator. The socio – economic indicator are indicated by enrolment in respective district. According to enrolment the districts are divided into three parts as developed districts, developing and backward district.

The retention in transition phase is much low in the developed district. The socio- economic conditions impacts the enrolment status in education system. The socio refers for the awareness in society regarding education and economic refers for the income status of the district. The developed districts receives lower per capita student funding despite high enrolment. The backward or underdeveloped districts of Rajasthan receive higher level of public funding from the government with lower level of enrolment. To understand it, the data can be vied (See table 4.4).

Hence, the basis of public funding is not performance basis but, it depends on motive to improve the conditions of underdeveloped districts. Here, we can say that the direction or way of public expenditure have a welfare motive to develop the backward districts in terms of education.

The expenditure improves the enrolment situation in secondary education but, the major part of the expenditure is spent on the teacher's salary so, the expenditure increased on education of children and for school is not much. The teacher salary component is more than 50 percent. In 2013-14 the salary component decreased drastically near to 33 percent because the overall expenditure increased. The expenditure for the development of schools and students should be shown clearly and separate from the total plan expenditure. And the finding by the case study that the delay in funds is not in the teacher's salary, it is in the student's scholarship and school's infrastructure fund.

The urban area of the state have high number of non-aided primary and secondary schools whereas, the rural and backward districts of state have high number of primary non- aided school

compared to the non-aided secondary schools. This fact helps in knowing the socio-economic status of the districts of the state.

5.2.4Important Findings of Case Study

The research study is conducted for state of Rajasthan. The geographical terrain is tough due to the warm climate of dessert. Due to the tough climatic condition the density of the state is also low. Rajasthan is a low income state of India, and the literacy of the state is also not much attractive. The finding which totally support with theoretical framework can be derived from the case study that how the social return helps in development of the society and children who achieve the level of secondary education.

Some children from the socially backward section are avoiding the social evil like child marriage, problem of under nutrition (through Mid-Day Meal Scheme and drinking water by Akshaya Patra NGO), gender equality, mental and psychological improvement through teachings, games, nutritional food, etc., in the school. Moreover the distance of school from house refrained the child to come to school daily with enthusiasm.

The results of case study support the above results that are derived from secondary data, i.e., the expenditure and enrolment in secondary improve there. The increase in funding is merely for the setting up of new schools and upgradation of existing factors. A part of the funding was allocated to scholarships, Mid-Day-Meal, Cycle for Girls, etc., improves the enrolment scenario in the school.

According to the major stakeholder in the higher secondary school, i.e., Principal of the school is that after, RMSA and other important schemes for secondary education the enrolment improves and the infrastructure of the school also. With the help of RMSA fund the school upgrades to higher secondary school.

According to the results of case study private secondary schools are attended by the rich sectionof the society. The results of retention in transition based on availability of the private school and the previous higher base in enrolment doesn’t lead to wide variation in retention especially in the backward districts.

The student from poor sections attends the government school and secondary schools are low in number in comparison to government primary schools. Thus, the enrolment improves in lower secondary due to presence of higher number of private primary schools, income status of the household.

5.3 Limitation of the Study

The study is conducted to know public funding,enrolment situation and enrolment retention rate in the upper elementary and lower secondary level in the districts of Rajasthan. The results of the study favor expenditure on the educational system and in the transition phase higher level of enrolment in the primary education the pressure on the infrastructure of the middle stage. The study has some limitations which are discussed below,

The enrolment in formal schooling depends not directly on the education receiver that is the student; it depends crucially on the parents of the student. The investment decision is not only from the government side but the household side also plays an important role. The role of household in decision making to educate their child is very crucial and single one who will decide that the child should take education or not. The enrolment improvement does not depend only on the public expenditure done by government. But, due to the scarcity of resources and time only the supply side investment decision considered here.

The study sought to know the impact of public expenditure on the enrolment of secondary education but because unavailability of the data of non- plan expenditure the study is based only on plan expenditure whereas, infrastructure of the school also improves with increment in non-plan expenditure. And, the non-plan expenditure is the significant amount and significantly higher than the plan expenditure. So, in terms of title of the study the expenditure is inappropriate.

5.4 Upcoming Scenarios

In the present era of globalization, the education has become very significant for the individuals and for the economic growth and development of the country. Funding of education is necessary at present time because the education sector still gets meager funding. It deals with the question like locating and mobilization resources for education and also with the pattern and processes of

resources allocation among different subsectors of education with reference to the national economy as a whole. The whole system needs to be overhauled. The higher level educational institution should change the funding pattern because the school education has to improve first as it provides inputs for the higher education. If there is fund scarcity then the government should prioritize the sectors or the higher education can be privatize at a level or the funding sources can be alter after recognizing the students who can pay the fee according to their financial status. Thus, the Government of India should priorities the school education and especially secondary as the elementary is going to universalize as the market does not support the school education.

With the poor infrastructure the quality and access of students in formal hamper. The reason behind it as the major fraction of population in India belongs to the backward and from rural area which is unaware from significance of education so the government should initiate it at large scale level. Financing to education helps in creating knowledge to the society. And the funding bodies other than government should tax exempted so, that the other NGO and institutions come to fund to school system. The government should lose the regulation of the tertiary education institutes and encourage the various ways to finance. The vocational education provides the skilled labour to the industries; thus the industrialist respective sectors help in financing.

Hence, we can say that the other levels of education can be financed with another sources like discussed above but, the school education suffers from ignorance in India which depends much on the investment in school education by the government. As per the importance of the secondary education in the economic growth and development after taking primary education ‘pure public good’ it is the secondary education which is ‘quasi-public good’. But, now after universalization of primary education, secondary should be treated as ‘public good’ and funded by the government. That’s why the poor population of the country can have access to the secondary school which is the most helpful stage in achieving skills and employment. It will remove the inequality, poverty, and will promote economic growth and development to the nation.

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APPENDIX-I

A Note on the Use of Word 'State'

The word state has been used in two different senses at different sense at different places. At some places it means the government, without denoting any particular state government or Central government. At others, it denotes state of the country such as Rajasthan state government. The most probable use of word state is for the state Rajasthan. However, there reference in which the word is used generally makes the meaning clear and does not remain ambiguous.

Appendix-II

Regression for the Study

With the help of table 4.6 the Regression Equation can be finding out by the following:

The Plan Expenditure is the independent Variable that is denoted by ‘X’ and, Enrolment in secondary education is the dependent variable that is ‘Y’.

Thus, we have to find out the Regression Equation Y on X:

$$Y = a + bX$$

To determine the value of ‘a’ and ‘b’ we have to use the ‘Least Square Method’ where, the sum of Squares of the deviation of the actual Y values from the computed Y values is the least or

$\sum(Y - Y_c)$, should be least. For it the required equation will be:

$$\sum Y = Na + b \sum X$$

$$\sum XY = a \sum X + b \sum X^2$$

Thesetwo equations for our study will be like this:

$305.09 = 11a + 211058.53b$ …..(i)
$7039850.83 = 2110558.53\ a + 9919163503\ b$ ……(ii)

After, solving these two equations we get the values of the constant ‘a’ and ‘b’. As follows:

$$a = 16.41$$

$$b = 0.0087$$

And so, the Regression Equation for the table 4.6 will be:

$$Y = 16.41 + 0.0087X$$

By taking into consideration to this equation we can interpret that the intercept part hence, we can conclude that the plan expenditure and enrolment are showing positive correlation as the diagram depicts.

The other factors like parental decision influence at a much higher level in educating a child. Other factors are like interest in study of the children, societal condition and economic status of the family. That's why the regression equation shows much impact plan expenditure's impact on enrolment.

Appendix - III

Interview Schedule

Interview Schedule for principal

1. How much public fund received by the school in 2008, 2009, 2013 and 2014?
2. Have you received the fund without delay and if not then what are the problems the school and students face?
3. Have you make aware the upper financial authority about your fund related requirements?
4. What are the reasons for the lower enrolment in secondary education?
5. Is this reluctance regarding proceeding in the secondary education from the child side or from the parent's side?

Interview Schedule for Parents

1. Are you wanted to educate your child if not then what are the reasons?
2. Have you faced the financial problem to educate your child?
3. Is the school infrastructure is not adequate or should be improved or will it make any positive impact on their decision regarding their child's enrolment in secondary class?

Interview Schedule for Students

1. Will you proceed in the next class? If not, then why, what are the reasons behind that decision?
2. What are your parents wish regarding your proceeding in next class?
3. Are your parents facing the financial problem?
4. Have they any feeling that school related factors are not adequate and they will not promote the child's growth so, it will be fine to pull their child from school and should be engage in other activities?
5. Have you got any financial assistance from the government side i.e. any scholarship etc.?

Appendix-IV

A Note on Developed and Backward Districts

Developed districts

Sri Ganganagar, Dholpur, Sawai Madhopur, Udaipur, Jaipur Alwar, Ajmer, Jodhpur, etc.

Backward Districts

Baran, Banswara, Dungarpur, Sirohi, Barmer, Karoli, Sirohi, Jaisalmer, etc.

Appendix-V

Table: 1

Year	Plan Expenditure on Secondary Education(In lac.)
2002-03	339.11
2003-04	1921.65
2004-05	5729.3
2005-06	7290.89
2006-07	1973.79
2007-08	3291.95
2008-09	5000
2009-10	12767.7
2010-11	23002.8
2011-12	40036
2012-13	27677.5
2013-14	82027.9
2014-15	98188.1

Source: Directorate of Secondary Education, Bikaner (Rajasthan)

Table-2

Enrolment in Secondary And Senior Secondary Education in Rajasthan							
DISTRICT	**2007-08**	**2008-09**	**2009-10**	**2010-11**	**2011-12**	**2012-13**	**2013-14**
AJMER	77362	82276	86777	94973	100426	105277	112421
ALWAR	114618	116287	121075	126338	126937	127472	138601
BANSWARA	64885	75874	79458	99841	106611	111615	116795
BARAN	29388	33172	32866	35574	40314	40072	43560
BARMER	53662	63815	70645	87697	89067	98474	96937
BHARTPUR	61828	62694	68741	73763	76002	73476	85671
BHILWARA	72896	80437	86133	98481	108279	108463	112457
BIKANER	43032	53487	55038	62395	65952	62911	71281
BUNDI	36438	36002	37740	43141	48615	49990	52506
CHITTORGARH	64502	72606	52442	60042	64832	65427	68009
CHURU	58997	62711	66851	72619	84328	75357	82777
DOUSA	56977	61859	66619	71113	72147	70572	76660
DHOLPUR	32701	33509	39717	44160	49225	49129	54641
DUNGARPUR	54394	62476	67633	82501	91952	96204	101587
HANUMANGARH	46658	53785	53136	56537	59931	56826	59671
JAIPUR	158721	169373	173955	177076	179489	176964	185766
JAISALMER	11321	12406	13177	17390	20312	20727	21402
JALORE	40023	46358	49632	56725	56944	57520	62937
JHALAWAR	37158	44422	46978	50192	55034	57291	61219
JHUNJHUNU	75605	70988	66927	71870	65982	65311	68310
JODHPUR	73790	84176	87136	93249	95913	93548	101322
KOTA	42277	38560	39007	43438	47461	48602	55587
NAGAUR	87420	100912	102987	96176	93320	92872	105036
PALI	68694	76659	79730	85171	89002	89387	93466
RAJSAMAND	44041	45790	46097	46004	50685	52051	53090
SAWAI MADHOPUR	34931	35102	37438	42391	43456	42997	48669
SHRIGANAGNAGAR	46455	47189	52785	62192	68367	63821	65995
SIKAR	87592	97847	87030	90534	88527	88285	85444
SIROHI	35748	32360	37440	41598	46681	48441	49420
TONK	43329	47560	50824	56337	56456	55347	58324
UDAIPUR	92266	93613	100770	118781	128002	136471	132346
KAROLI	42562	43438	44950	49843	53100	51277	55504
PRATAPGARH			29761	37504	43464	45040	46335
TOTAL	1890271	2037743	2131495	2345646	2466813	2477217	2623746

Source: Ibid**.**

Table-3

Transition (from 8th to 9th) Retention in Govt. Schools in Rajasthan

District	**2007-08**	**2008-09**	**2009-10**	**2010-11**	**2011-12**	**2012-13**	**2013-14**
AJMER	7885	4154	7145	12985	9437	11455	15754

ALWAR	16362	6842	10076	16018	9018	14759	15123
BANSWARA	14821	13446	14758	16347	11652	13086	14337
BARAN	3549	1274	1824	5131	1030	3558	5246
BARMER	8021	4875	9171	10797	11731	9395	12422
BHARTPUR	7114	3109	5439	7174	3438	5481	7436
BHILWARA	9307	6808	10557	13808	13818	13339	17943
BIKANER	4182	4738	4412	4487	4124	2963	5295
BUNDI	4690	3260	4768	7129	3188	7277	8339
CHITTORGARH	10989	9954	7195	11148	6809	9685	12112
CHURU	5124	4419	5682	7813	5911	6729	7302
DOUSA	8607	4353	4826	8528	5950	7466	7388
DHOLPUR	3396	1199	2239	4440	1281	2937	4311
DUNGARPUR	9716	6720	7315	14898	9280	12457	24952
HANUMANGARH	4369	4477	3215	3612	3408	2436	2595
JAIPUR	14984	316211	6725	22299	9563	18205	20254
JAISALMER	1493	828	864	1624	1312	1217	1362
JALORE	5905	5563	6696	7443	6259	6978	9780
JHALAWAR	7208	4649	6028	9441	5477	8425	10683
JHUNJHUNU	3112	3348	4733	6858	4242	5918	6910
JODHPUR	10208	7732	9383	11799	11905	10673	11847
KOTA	4066	2439	2780	7132	2667	6409	5410
NAGAUR	11605	10728	11305	11196	6158	8490	10476
PALI	6847	3625	7776	15025	8795	14611	16041
RAJSAMAND	5649	4508	7028	7192	2747	7810	6370
SAWAI MADHOPUR	5055	1200	1426	5348	1849	3785	3847
SHRIGANAGNAGAR	4521	3310	4003	5327	2383	4051	5239
SIKAR	8006	8094	4794	10454	5132	9423	6990
SIROHI	2668	3153	3589	10007	3178	7709	8750
TONK	6690	5119	5644	6215	6561	6002	7517
UDAIPUR	6661	12929	11968	17309	12466	14880	17288
KAROLI	4966	750	13396	5236	1995	3315	4454
PRATAPGARH			-3683	6728	2983	5552	6350

Source: Ibid.

Table-4

Growth Rate of Transition Retention in Rajasthan (in percentage)						
	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
District						
AJMER	32.26909	60.76714	80.54109	66.49806	81.43172	116.2399
ALWAR	40.03277	66.7329	57.20266	58.05593	102.5785	89.63903
BANSWARA	151.2826	186.6211	101.9244	51.41657	110.2536	110.0898
BARAN	23.62322	37.87375	19.35726	92.50512	60.5617	83.44202
BARMER	48.5945	101.0245	110.8685	58.62764	71.82173	105.6382
BHARTPUR	34.46785	65.99126	33.26882	71.10805	55.96855	61.15132
BHILWARA	54.5644	95.73773	125.5953	55.70911	96.47067	135.9215
BIKANER	64.17445	61.62872	52.07728	77.70489	31.66275	49.54618
BUNDI	64.28712	106.8819	55.2513	65.87408	123.3181	131.3642
CHITTORGARH	98.95616	111.3432	92.08818	54.93206	124.1348	164.0526
CHURU	46.03605	63.2669	62.20796	65.32797	66.82888	65.92633
DOUSA	47.29979	55.45852	67.02715	55.88453	90.10379	74.06516
DHOLPUR	24.80348	41.60937	20.47307	98.51419	39.55023	51.0661
DUNGARPUR	70.88608	80.0591	88.92296	53.41347	118.2889	2212.057
HANUMANGARH	55.49771	41.27616	41.27907	57.75892	36.15853	35.7931
JAIPUR	1268.345	26.65266	42.83539	61.08567	93.45962	91.43605
JAISALMER	41.56627	42.68775	48.68275	78.73721	38.57369	41.08597
JALORE	76.97523	99.2	80.51196	56.08922	88.65455	119.8529
JHALAWAR	75.70428	113.3509	102.7965	54.06756	144.2143	173.5944
JHUNJHUNU	31.33658	50.79416	43.82231	57.384	74.07686	88.16024
JODHPUR	62.81072	80.35454	110.6207	48.2287	97.63081	93.72627
KOTA	42.71454	52.85171	44.79342	66.6628	111.5191	75.13889
NAGAUR	77.51445	82.71749	45.4532	58.66234	73.44291	74.30314
PALI	26.81808	62.33766	73.35891	53.09854	132.394	148.2395
RAJSAMAND	73.07505	118.0978	45.27027	64.34487	137.6939	94.87638
SAWAI MADHOPUR	22.53944	27.49181	30.99229	69.75048	69.4368	58.70594
SHRIGANAGNAGAR	46.5149	54.43296	23.9642	78.60793	41.80599	53.82166
SIKAR	65.78883	40.43181	42.5539	60.51652	90.57093	61.40197
SIROHI	60.58801	62.93179	52.7644	52.09216	160.8387	153.5088
TONK	77.18637	94.06667	107.858	51.92977	91.4103	110.8702
UDAIPUR	102.3593	85.76752	81.79253	63.12845	85.07232	106.8876
KAROLI	10.37631	191.0167	27.56286	78.0678	45.99057	55.52231
PRATAPGARH						

Source: Ibid.

Table-5

State Wise RMSA Expenditure by GOI						
Year		**2009-10**	**2010-11**	**2011-12**	**2012-13**	**2013-14**
State						
A&N Islands		0.00	0.00	1.05	0.67	0.00
Andhra Pradesh		12.75	257.00	328.32	354.65	198.69
Arunachal Pradesh		0.29	25.95	20.24	24.37	0.00
Assam		6.35	0.00	83.46	128.32	70.62
Bihar		16.72	64.42	23.50	137.65	68.85
Chandigarh		0.00	0.00	2.35	0.70	0.22
Chhattisgarh		56.32	0.00	344.69	308.97	186.93
D&N Haveli		0.00	0.00	1.26	0.45	0.36
Daman & Diu		0.00	0.00	1.29	0.55	1.80
Delhi		0.00	0.00	3.97	0.00	4.43
Goa		0.31	0.21	3.12	0.00	1.04
Gujarat		0.24	9.82	15.25	82.05	0.00
Haryana		3.85	0.00	175.56	101.12	72.04
Himachal Pradesh		2.54	25.04	57.66	20.35	214.67
Jammu & Kashmir		8.82	18.31	96.37	109.36	135.78
Jharkhand		7.72	63.45	17.94	0.00	118.83
Karnataka		71.13	0.00	48.90	56.42	128.83
Kerala		8.93	9.29	19.10	15.27	17.19
Lakshadweep		1.10	0.00	0.74	0.00	0.00
Madhya Pradesh		92.58	158.09	242.39	461.23	524.55
Maharashtra		0.00	0.68	73.99	9.85	7.68
Manipur		17.64	24.13	38.13	43.01	43.14
Meghalaya		1.06	0.00	12.39	1.60	3.41
Mizoram		16.41	17.61	36.23	63.91	39.45
Nagaland		10.94	5.24	28.26	16.62	5.06
Orissa		5.04	66.36	128.87	215.43	265.54
Puducherry		1.50	1.87	1.96	0.72	7.17
Punjab		23.25	178.26	89.40	258.44	92.60

Rajasthan		16.18	0.00	146.89	87.04	267.14
Sikkim		2.30	3.23	6.92	0.25	8.62
Tamil Nadu		52.18	44.24	197.19	276.14	359.36
Tripura		9.58	22.85	7.23	70.18	23.66
Uttar Pradesh		29.00	39.33	204.48	220.87	96.80
Uttarakhand		2.22	67.75	34.07	96.64	75.72
West Bengal		10.99	0.00	2.74	0.00	0.77
State Total		**487.91**	**1103.13**	**2495.90**	**3162.84**	**3040.96**
NUEPA		0.66		0.00	0.00	
Edcil		0.69		3.50	7.51	7.63
NCERT		0.00		0.00	1.27	1.00
IIT Delhi		0.00		0.00	0.00	0.13
EA		0.00		0.00	0.00	0.01
Grand Total			**1103.13**	**2499.40**	**3171.61**	**3049.73**

Source: MHRD, Various Years

Table-6

Plan Expenditure in Rajasthan in Sec. Education (in Lac.)						
District	**2008-09**	**2009-10**	**2010-11**	**2011-12**	**2012-13**	**2013-14**
AJMER	172.04	443.39	662.13	1286.18	598.81	2192.63
ALWAR	237.34	807.63	1329.23	2075.58	713.91	2761.79
BANSWARA	176.36	442.71	642.14	1272.48	851.49	1652.8
JAIPUR	622.22	1800.64	3886.69	11375.4	1456.82	23295
SIKAR	273.32	704.4	1251.47	1619.85	376.62	1933.97
DAUSA	59.22	327.52	773.93	946.8	567.05	1712.98
B.ATPUR	158.5	426.71	813.94	1127.99	559.86	2055.22
J.DPUR	114.92	488.08	752.72	962.3	929.54	2399
BARAN	83.39	232.65	514.26	723.83	263.15	787.97
JAI.MER	56.39	105.08	190.25	212.97	302.72	851.26
BARMER	142.47	518.95	582.15	1139.13	996.86	1892.37
SIROHI	56.67	148.91	340.09	438.72	194.98	843.25
JALOR	67.14	198.52	374.14	541.9	507.38	971.78
PALI	233.63	468.79	993.57	1135.18	547.37	1407.55
NAGOR	253.41	512.21	870.1	1300.01	756.06	1737.67
BHILWARA	142.47	401.83	669.4	1014.83	584.62	1770.86
TONK	85.37	237.37	612.99	803.49	388.79	1082.71
BIKANER	477.52	149.86	666.21	1505.55	1813.2	3339.95
CHURU	97.56	267.5	589.89	1037.97	1398.93	3265.89
G.NAGAR	160.69	299.12	475.95	719.5	1087.66	2755.33
H.GARH	159.65	215.41	422.43	504.23	736.65	2067.57
JHUNJNU	218.57	451.27	808.6	1158.63	1046.96	2962.29
KOTA	106.12	264.38	494.72	541.4	619.98	1579.99
BUNDI	46.43	264.38	380.63	492.18	346.84	1038.94
JHALAWAR	109.85	288.12	579.33	962.6	183.96	495.76
DHOLPUR	66.81	209.81	502.34	603.45	225.76	785.91
KARULI	50.19	195.66	398.94	603.04	431.54	1176.51
S.M.PUR	47.18	201.49	398.07	560.59	349.09	1210.4
UDAIPUR	202.22	324.17	565.46	972.94	1855.11	4643.24
R.SAMAND	105.34	185.19	398.95	506.83	447.32	1105
DUN.PUR	85.05	534.34	648.91	909.43	829.1	1827
CHITTOR	131.75	195.37	261.37	651.97	669.72	1452.99
PRATAPGARH		75.08	152.03	328.98	548.92	1137.77

Source: Ibid**.**

Table-7

Year	RMSA Fund Flow Statement								
		Recurring Expenditure			Non-Recurring Expenditure				
	GOI	GOR	TOTAL	EXPENDITURE	GOI	GOR	TOTAL	EXPENDITURE	
2009-10	1618	200	1818	1805.21	0	0	0	0	
2010-11	5296	339.33	5648.12	5587.5	0	875	875	0	
2011-12	5238.51	3511.52	8810.65	8810	9450.58	2275.19	11725.8	3834.84	
2012-13	8703.95	2901.32	11683.2	6170.04	0	0	8765.93	5196.75	
2013-14	0	0	6751.29	6702.18	26714.1	8904.7	39188	6113.79	
TOTAL	**20856.5**	**6952.17**	**34711.2**	**29074.9**	**36164.7**	**12054.9**	**60554.7**	**15145.4**	

Source: Ibid.

Table-8

Year	Fund Flow Statement for Girls Hostel								
	Recurring Expenditure				Non-Recurring Expenditure				
	GOI	GOR	TOTAL	EXPENDITURE	GOI	GOR	TOTAL	EXPENDITURE	
2009-10	0	0	0	0	516	57.33	573.33	505	
2010-11	0	0	0	0	3129.92	347.76	3477.68	1592.6	
2011-12	198.57	22.06	220.63	203.5	1450.89	161.21	1612.1	1504.04	
2012-13	0	0	0	372.69	0	0	2061.47	1019.59	
2013-14	698.69	77.64	776.33	437	0	0	1041.88	950.14	
TOTAL	897.26	99.7	996.96	1013.19	5096.81	566.3	8766.46	5571.37	

Source: Ibid.

Table-9

Year	Fund Flow Statement of Model School (in Lac.)								
	Recurring Expenditure				Non-Recurring Expenditure				
	GOI	**GOR**	**TOTAL**	**EXPENDITURE**	**GOI**	**GOR**	**TOTAL**	**EXPENDITURE**	
2009-10	0	0	0	0	0	0	0	0	
2010-11	0	0	0	0	3265	1088	4353	0	
2011-12	0	0	0	0	10898	2789.63	13687.63	9448.44	
2012-13	0	0	0	0	0	843.37	843.37	4098.41	
2013-14	1026.53	1026.53	2053.06	2.58	0	0	0	3070.99	
TOTAL	**1026.53**	**1026.53**	**2056.06**	**2.58**	**14163**	**4721**	**18884**	**16617.84**	

Source: Ibid.

Table-10

Plan Expenditure on Students (in Lac)					
Year	**Total Plan Exp.**	**Exp. On Teacher Salary**	**Exp. Excluding T. Salary**	**Growth Rate (in percent)**	
2007-08	**3291.95**	0.51	3291.44	99.98	
2008-09	4999.79	3538.71	1461.08	29.22	
2009-10	12386.50	8504.02	3882.52	31.34	
2010-11	23003.00	16027.47	6975.56	30.32	
2011-12	40036.00	27858.67	12177.29	30.41	
2012-13	23186.90	14215.78	8971.09	38.69	
2013-14	180193.00	43494.66	136698.37	75.86	

Source: Ibid.

Table-11

Total Fund Allocation By GoI to GoR							
	TOTAL						**TOTAL**
YEAR	**RMSA**	**RMSA**	**G.H.**		**MODEL SCHOOL**		
2009-10	1818	0	0	573.33	0	0	2391.33
2010-11	5648.12	875	0	3477.68	0	4353	14353.8
2011-12	8810.65	11725.8	220.63	1612.1	0	13687.63	36056.78
2012-13	11683.2	8765.93	0	2061.47	0	843.37	23353.92
2013-14	6751.29	39188	776.33	1041.88	2053.06	0	49810.52
TOTAL	**34711.2**	**60554.7**	**996.96**	**8766.46**	**2053.06**	**18884**	**125966.4**

Source: Ibid.

Table-12

TOTAL EXPENDITURE DONE BY GOR.							
YEAR	**RMSA**	**RMSA**	**G.H.**	**G.H.**	**MODEL SCHOOL**		
2009-10	1805.21	0	0	505	0	0	2310.21
2010-11	5587.5	0	0	1592.6	0	0	7180.1
2011-12	8810	3834.84	203.5	1504.04	9448.44	0	23800.82
2012-13	6170.04	5196.75	372.69	1019.59	4098.41	0	16857.48
2013-14	6702.18	6113.79	437	950.14	3070.99	2.58	17276.68
TOTAL	**29074.9**	**15145.4**	**1013.19**	**5571.37**	**16617.84**	**2.58**	**67425.29**

Source: Ibid.