CHAPTER - II

REVIEW OF LITERATURE, SIGNIFICANCE OF THE PROBLEM AND METHODOLOGY

In this chapter an attempt has been made by the researcher to present the review of literature. The reviews has been categorised and arranged under different headings to have a clear understanding on the topic of research.

2.1 Review of Literature

The review of earlier studies have been arranged under the headings budget and budgeting, social sector and its dimensions, budgeting and education, budgeting and health expenditure and budgeting and rural, urban development.

2.1.1 Studies related to Budget

David Novik (1967)\(^1\) had described that the intent is not to provide guidelines for program development and budgeting within these sectors but rather to outline the setting in which federal action takes place. This goal might be accomplished through a comparatively rough and brief initial effort, much less incentive and less formal than that required to prepare a federal programs budget, followed by occasional updating and supplemented as needed, by adhoc special studies. It is a fair presumption that an approach as this, which by delineating the broad context on which
federal health outlays have their impact, and by helping to bring in focus the relation between federal burdens and contribution of nonfederal burdens, would make a federal program budget for health a sharper, more precise and more effective tool.

James (1973)² stated that in many developing nations the solutions to modernize budgeting has been a half hearted commitment to performance budgeting as an explanatory supplement to the traditional budget with little attempt to integrate it with national planning.

Robert D. Lee, et. al (1973)³ had pointed out that budgeting is a means by which government may be held accountable for its actions, and accountability is essential to the concept of limited government. Through budgets, the electorate can obtain information to assess the quality of decisions made by political leaders.

Michael Babunakis (1976)⁴ emphasized that the line item budget also encourages competition among departments for available funds. Naturally, each department wants a large appropriation as possible, regardless of its relative importance to overall government objectives. Each department is responsible for preparing its own budget request making comprehensive planning difficult. Because of this internal competition, there is little
enthusiasm for interdepartmental collaboration on programs whose objectives are similar.

Shakdher S.L. (1979)\(^5\) had described that countries which follow the commonwealth parliamentary system attach more importance to the control by the house as a whole before the budget is passed; a detailed and comprehensive study by its committees of a few selected items of estimates of expenditure in countries which follow the continental system. Budget is scrutinized in greater detail in committees before it is passed by Houses and there is little control over the expenditure after it has been incurred.

Sengupta A.K. (1991)\(^6\) had argued that budget making is quite different from policy making. For purposes of the present work the term budget making refers to the mechanism and manner of inclusion and exclusion into or from what will soon be emerging as the budget.

Sharma S.N. (1998)\(^7\) had studied a new conceptual framework of the budget that generates a medium for motivations of better performance by the people of the country. It sets a new creative fashion by release of potential energies. It generates, sustains and encourages willing cooperation through effective motivation of individuals. This kind of budget helps to develop the confidence of the people in effective utilization of men, machines
and other resources towards the overall development of the national economy.

Nirupam Bajpai and Jeffrey D. Sachs (1999)⁸ had pointed out that over the year, the consolidated financial position of the state governments has shown a marked deterioration in some of their major deficit indicators. One of the fundamental weaknesses of the state government finances in India can be attributed to the increase in non-development expenditure, and interest payments, as a proportion of revenue receipts. Structural imbalances in the form of large revenue deficit, rising interest burden, increasing distortions in the pattern of expenditure, and very slow growing non tax revenues are major problem areas for state finances.

Bhargava P.K. (2000)⁹ had revealed that the public sector alone can not deliver the goods and, therefore, there is need to encourage private initiative and enterprise. Accordingly provisions have been incorporated in the budget to provide relief and encouragement to the private sector. For the poor and all others not covered under any insurance scheme or workmen’s compensation arrangements, the government has decided to introduce a social security scheme to cover the risk of death by accident.

Subramanian S. (2001)¹⁰ had pointed out that in addition to reduced budgetary inputs for the health system the possible
indirect effect of the adjustment process on health status will be relevant. In short, the medium term, low growth, inflation and higher levels of unemployment have accompanied adjustment in many countries. In such a context, reductions in real terms in welfare subsidies as part of fiscal contraction, especially in food subsidies, can be considerably lower than the standard of living of the poor with serious consequences to their health system.

Narasimhulu M. (2002)\textsuperscript{11} is of the opinion that the growing fiscal inability of the Central Government to pursue either of the short term strategies needed to reduce the fiscal deficit, either to mobilize resources by raising tax revenues and/or to curb public expenditure.

Sury M.M. (2003)\textsuperscript{12} had stated that Government budgeting is a subject of increasing importance and interest in India. The high level of administrative, welfare and development activities of the Central Government are made for colossal amounts of both receipts and disbursement. Such large-scale public transactions through the budget affect the economy in various ways.

Datar M.K. (2003)\textsuperscript{13} had revealed that, in the Budget for 2003-04 the government has sought to underwrite risks faced by different segments of the population. When government assumes additional risks it is necessary to ask whether the mode of risk mitigation proposed is appropriate and who would benefit from
such intervention. An attempt is made here to examine these and related questions in relation to the budget.

Malla Lalvani (2004)\textsuperscript{14} had argued that the budgetary allocations in no way make it appear significantly different from its predecessor. However, the one important message that the budget did send out is that, it intends to maintain and take forward the reform process.

Sijbren Crossen and Hans-Werner Sinn (2004)\textsuperscript{15} had found that the administrative case for budget consolidation is self-evident. But his consolidation is a matter of administrable expediency only; we must not lose sight of the basic principle that the consolidated budget has no rationale on its own.

Errol D’Souza (2006)\textsuperscript{16} had emphasized that infrastructure expenditures have a propensity to increase inequality and this turns the attention of government towards redistribution, which in turn, increases transfer payments and squeezes out capital expenditures. Sorting out governance issues associated with infrastructure spending is essential to making budgetary finances more growth oriented.

Mala Lalvani (2007)\textsuperscript{17} had described that the opportunity provided by high growth and a comfortable revenue situation to make a serious attempt to boost allocations for education and agriculture has been allowed to slip away. The high priority status
accorded to these sectors in the budget speech is not backed by numbers. Instead the numbers have been played around with such gimmickry that it only serves to make budgets lose their credibility.

2.1.2 Social Sector and its Dimensions

Seeta Prabhu K. (1994)\textsuperscript{18} had described that the structural adjustment programme in the country is being implemented against a background of incomplete structural transformation, low level of human development and distorted patterns of expenditure in education and health. Complicating the issue further is the fact that the bulk of expenditure on social sectors is incurred by the state governments which have pursued human development strategies with varying degrees of intensity.

Guhan S. (1995)\textsuperscript{19} had elucidated and explained that, the emphasis on the centre’s social sector expenditure, which had made it important to analyse such expenditure in terms of its dimensions, trends and compositions. This article had attempted at such an analysis, with the data collected from the six budgets, (1991 to 1996) giving particular attention to the so called social expenditure which was of much significance to the poor. Further, the author had explored the available options for making such expenditure more cost effective and more purposeful.
Ajith Karnik (1997)\(^{20}\) had found that there has been substantial neglect of physical and social infrastructure. The infrastructure sector has been systematically starved of funds and in most cases, budget allocations have barely kept pace with the growth of the economy.

Abusaleh Sheriff (2002)\(^{21}\), et.al, had pointed out that the overall expenditure on social sector schemes had been increasing in real terms, but mainly through an increased expenditure by the central government. The state Governments seemed to neglect their constitutions’ commitment to carry out and sustain the programmes in the social sector, which is a matter of much concern and this, had been a large intersectoral reallocation of funds in respect of the poverty alleviation programmes. A major development had been found in their study that the large funds that had been allocated for employment generation had been diverted to the various rural road construction programmes. This reallocation might have had serious implications for employment generation.

Mahendra Dev S. and Jos Mooij (2002)\(^{22}\) had focused on social sector expenditure in the 1990s, and at several aspects, including overall levels of allocation, expenditure on health and education and interstate disparities. India’s social sector expenditure in the 1990s was lower than that in the 1980s and
also less than that of most other developing countries. With India ranking 115th in the Human Development Index, there is an obvious need to step on social sector expenditure and improve fund utilization.

Harjeet Ahluwalia (2003)\textsuperscript{23} had pointed that budget 2003-2004 promises to initiate some major steps in the realm of the social sector: These include, evolving integrated solutions for the twin concerns of poverty alleviation and rural development, a universal health insurance scheme for the poor; a monthly pension scheme for senior citizens, tax incentives for education expenses and encouraging healthcare facilities in the private sector through tax concessions.

Mahendra Dev S. (2003)\textsuperscript{24} had emphasized that social sector expenditures are inadequate compared to the size of the problem. Social sector expenditure is inadequate at both central and state levels if the country wants to do better in human development.

Ratan Kumar Ghosal (2004)\textsuperscript{25} had emphasized that India experienced higher growth rates of GDP in the 1990s as compared to the 1980s. But this growth has been a service sector driven growth, which has yielded a negligible impact on employment and entitlements of people suffering from the lack of social and economic opportunities.
Sarma E.A.S. (2005) had revealed that social sector spending is an important component of plan outlays and the resources that could be set as a part for these sectors would depend on the size of the plan itself. The proportion of budgeting resources earmarked for the plan itself has been declining steadily. Out of this the proportion going to the states is declining further.

Ameresh Bagchi (2006) had pointed out that an exclusive focus on deficit reduction has had the adverse fall out for public spending on health and education in several states forcing a shrinkage of the public sector’s involvement in the social sector.

Ravishankar V.J. and Farah Zahirand Nehakaul (2008) had found that the majority of states have relied more on enhancing their own revenues than on contracting expenditures, which is welcome in the context of the squeeze on infrastructure and social sector expenditures that states had experienced over the 1990s.

Rekha Mehta and Pallavi (2008) had stated that as a percentage of GDP, the social sector expenditure had slightly decreased and as a percentage of the total expenditure also the social sector expenditure had decreased after the adoption of the economic reforms, as compared to the pre reform period. In a country of large size and of much diversity, such as in India, there were limitations as to what the governments could achieve even with the adoption of the best of programme. The year 1991 was the
beginning of a fairly explicit phase of the adoption of economic reforms in India. The state governments also had a major role to play in developing the infrastructure facilities needed for accelerating economic growth. In fact, many of the critical areas were those where the primary responsibility of development was that of the state government. This included investments in the social sector, such as the provision of schools, making improvements in providing health services, making additional investments in critical areas of economic infrastructure such as in the power systems including programmes on rural electrifications, the development of irrigation and water management systems, land development programmes and the expansion of the state highways the district and rural roads. Huge investments were needed in all these areas to achieve faster and higher rates of economic growth.

2.1.3 Budgeting and Education

Kapur J.N. (1975)\textsuperscript{30} stated that every activity of man might form the subject matter of economics. The seventies and the eighties had witnessed an increasing trend in the world wide pursuit of interdisciplinary studies, and the economics of education had started coming up. The two main classes of the problems studied in this discipline related to an analysis of the economic values of education, that is the returns of the investment on the education on one hand, and the economic aspects of the
educational system that is, the economic optimization of the educational system on the other, so that both economics and education might become interrelated.

Chalam K.S. (1994)\textsuperscript{31} had emphasized that the budget proposals and the budget rigidity towards education in the central sector might bring educational inequalities in the long run because they indirectly encourage private sector growth in education.

Allen Roy, B. Kamiaah and Govinda Rao M. (2000)\textsuperscript{32} had conducted an empirical study of 15 large Indian states over the period, 1992–93 to 1997–98 with the help of secondary data. This study had employed the panel data models to estimate the normative (average) level of expenditure on primary, secondary and on higher education. The findings of the study had revealed that the actual expenditure on the educational services in the low income states was found to be lower than their actual needs; this finding had implied that the existing fiscal equalization mechanizing had not been effective in offsetting the revenue and cost disabilities of the poorer states in India.

Govinda R. (2002)\textsuperscript{33} had described the need for strengthening the resource base for education is obvious. The choices seem to be limited as far as school education is concerned. The government should continue to take complete responsibility of financing elementary education, and other sources can only supplement
government efforts. There is need to improve the overall allocation pattern in financing education in India.

Jhaveri N.J. (2003) had stated that, restructuring of expenditure on education for skill retooling, on affordable health facilities, on minimum income assurance and so on has become an integral part of a modern state, even a capitalist state. The true test of a budget is how fast and how far it takes the economy towards this destination.

Krishnaswamy K. S. (2004) in his article “Managing Education” points out that an important element in financing higher education is that of externalities. The quality of such education depends as much on the research element that goes into teachers as on its pedagogy; hence in the allocation of human and financial resources, providing adequately for research becomes an important issue.

Santosh Mehrotra (2004) had focused his attention on the need for reforming the structure of educational spending at the state level. He had emphasized on the inordinately high share of the total expenditure on elementary education, on teacher’s salaries, as well as the bias in favour of secondary education in many states in public spending and he had also argued for a much greater recovery from higher education than was currently under
way. All these factors had serious consequences for both efficiency as well as for equity in public education spending.

Santosh Mehrotra et. al., (2005)\textsuperscript{37} had found that capital expenditures are often adhoc grants to educational institutions. Capital spending on education, and in the case of the central government, is inconsequential, accounting for as little as 1-2 percent of total spending.

Jandhyala B.G. Tilak (2006)\textsuperscript{38} had revealed that over the years, the relative share of higher education in the union government’s allocation has been declining while increased interest on the part of the union government in elementary education is welcomed. The reduced interest in higher education should be a matter of serious concern.

Pulapre Bala (2006)\textsuperscript{39} had argued that the decline and fall of the public funded higher education system in India had its origin on the fact that there had been a steady expansion in the number of the institutions without any concern for the quality. The increase in the number of seats by increasing the number of institutions only could prove counter productive.

Anit Mukerjee (2007)\textsuperscript{40} had pointed out that in analyzing the budget provisions for education, it is worthwhile to keep in mind the complexity of the sector, the variety of players, and the
convergence between the planning process and the budgetary provision.

Jayaramu P.S. (2007)\textsuperscript{41} had revealed that higher education stands neglected in the budget, which does not augur well for the country, compared to the sustained efforts made by many other Asian nations to give priority to higher education along with primary education.

Sharanjit S. Dhillon and Afay Sehgal (2008)\textsuperscript{42} had attempted to study the patterns of expenditure on education at the state levels and had also analysed the performance of the states in educational development on the basis of the enrolment indicators. A large number of the states have accorded a low priority to the educational sector in their budgets, which had resulted in an adverse effect on the economic progress of the country. No doubt, most of the states had shifted their focus towards elementary education, but this had not been reflected in their performance in terms of educational attainments. The need of the hour is that both the centre as well as states should play a major role in providing quality education to all, focusing their attention on providing an increasing access to the socially and economically underprivileged groups, which is necessary for making education a tool for improving social and economic well being.
2.1.4 Studies related to Health

Ravi Duggal (1997) had the opinion that a meaningful analysis of recent health budgets can only be made in the context of the direct and indirect encouragement given by the state to the growth of the private sector in health services. First the slowing down of the state’s investment in the hospital sector and the subsidies, soft loan and duty and tax exemptions offered; second the creation of a market for modern health care through the setting up of PHCs and cottage hospitals in the rural areas; and third, the consistent expansion in highly qualified medical personnel who could not be observed in the state sector.

Rout (1998) who had studied the progress of the health sector from the days of the traditional health system during the pre-independence period to the development of healthcare in the post independent period, had shown that there had been a decline in the expenditure on the health care system, mainly due to the country’s failure to use its resources to provide basic health care to the majority of its population in a just and equitable manner. Though there had been a market expansion in the infrastructural facilities provided for the health sector, it had failed to match the needs of the growing population, which had more than, neutralized the improvements made in the health sector in India.
Rumki Basu (1998) had analysed the trends of public expenditure and of investments in four states, namely, West Bengal, Tamil Nadu, Punjab, and Maharastra, during the period 1980–81 to 1995–96. The average development expenditure in all these states had increased by more than 50 percent in the year 1995–96, over their average expenditure in the year 1980–81. Among the four states Tamil Nadu was the only state which had doubled its per capita development expenditure in real terms in the year 1995-96 as compared to that of the year 1980-81. In other states also, the per capital development expenditures had increased in 1995–1996 over that of the year 1980–81.

Deepa Sankar and Katthuria (2003) had revealed that a number of concessions in the form of reduced excise, customs, or income tax exemptions have been announced for the healthcare industry. However health care also needs to be viewed as a service, which the budget has neglected to do. Launching of an insurance scheme is a laudable beginning but overall rural health care has gained little in this budget.

Deepa Sankar and Vinish Kathuria (2004) had attempted to analyse the performance of the rural public health systems in 16 states in India using the techniques of stochastic production frontier and the panel data literature. The results of their study had shown that not all states which had disclosed better health
indicators had enjoyed efficient health systems. The study had concluded that investments in the health sector alone might not result in realizing better health indicators. A very efficient management of the investments made in the health sector was required for creating a better healthy society in India.

Ranga Reddy K. and Amitabha Rao (2005)\(^{48}\) pointed out that the budget lays special emphasis on improvement in the level of health through larger allocations, effective implementation of disease programmes and greater focus on tertiary health care.

Hugh Gravelle and Luigi Sincilani (2008)\(^{49}\) in their article “Ramsey Waits: Allocating Public Health Service resources” point out that when there is rationing the optimal allocation of a public health care budget across treatments must take account of the way in which care is rationed within treatments since this will affect their marginal value. The optimal waiting time is higher for treatments with demands more elastic to waiting time, higher costs, lower charges, smaller marginal welfare loss from waiting by treated patients and smaller marginal welfare losses from under consumption of care.

2.1.5 Budgeting and rural, urban development

Santosh Mehrotra, Jan Vandemoortele, and Enrique Delamonica (1998)\(^{50}\) had emphasized on the fact that not all social sector expenditure had played an important role in supporting
economic growth and reducing poverty such as the expenditure on basic social services, preventive and basic curative health services, water and sanitation, family planning and basic education. They were not only more efficient in terms of providing human capital and were also more equitable; nevertheless, there was very little information as to how much the governments of the developing countries had spent on these basic services for estimating the level of public spending on such basic social services, with a special emphasis on the need for future work and for assessing the possibilities for increasing the expenditure on these basic social services.

Padmanaban K. (2001) had given due importance to the development programmes that were directed towards reducing poverty, human resources development, universalisation of primary education, provision of safe drinking water, primary health services, connectivity to all villages and to the streamlining of the public distribution system to benefit families below the poverty line. Abusaleh Shariff, et. al., (2002) had analysed the trend in public expenditure on social sector and Poverty Alleviation Programmes, during the period 1990-91 to 1999-2000. In their study, on inter Governmental adjustment factor had been computed by them, by dividing the added total figures of the centre and those of the states. The study had revealed that a considerable
proportion of the expenditure had increased over a period of time. They had considered the central and the state adjusted combined expenditures for their study. A major development found in their study is that the large funds that had been allocated for employment generation had been diverted to the various rural road construction programmes. This reallocation might have had serious implications for employment generation.

Sudhaman K.R. (2005)\textsuperscript{53} pointed out that the budget has substantially stepped up allocation and schemes to rural development under various leads apart from the employment guarantee scheme to bring about social transformation by giving a new deal to rural India.

Tripathy K.K (2010)\textsuperscript{54} had stated that the Budget of 2010-11 had attempted to lay much stress on the common man and on rural India, and for taking steps for consolidating the efforts taken by the Government on rural development, promoting employment, food security, education, health and housing. Some of the important budget announcements concerning social and physical infrastructure in the rural areas had also been analysed by the author. The budget had laid its focus on social sector and on rural development initiatives. The emphasis of the budget was on the social sector and had aimed at ensuring the inclusive growth.
2.2 Research Gap

From the foregoing review of literature, it is found that there are a lot of studies conducted on different issues of union budget expenditure and social sector development separately. These studies have focused on social sector especially, education, health, family welfare, nutrition, rural and urban development individually. But this study is related to the overall budgetary expenditure of the union government which combined the departments of education, health, family welfare, nutrition, rural and urban development. Hence, this study is done to fill this gap. Moreover, from the researcher’s point of view there is no study conducted so far empirically on union budget and its impact on social sector development.

2.3 Significance of the Problem

Budgets are the most crucial policy documents that reveal the social and economic priorities of governments. It is in these expenditure decisions that official objectives and stated commitments get a concrete shape. Of course, it is true that the effect of these expenditures on human development does not only depend on their level, but also on the effectiveness of their utilization. The budget utilization is comparatively less for social sector development. Union budget expenditure allocation fails to satisfy the beneficiaries. It hardly reaches the needy persons.
The attention of the Government of India during the reform era had been more on economical issues which had resulted in the process of rapid economic development in India, but the social development had remained virtually stagnant during the same period. After twenty years of the adoption of economic reforms, it is being increasingly felt that there is an urgent need to give a human face to the economic process of reforms, by consolidating the economic gains and by matching it with social development through the provisions of the budget.

After attaining independence, the Indian government took efforts to develop the social sector and has given equal importance to the economic sector. In the social sector front, the progress achieved so far has been relatively very low and its impact has been a mixed one. In the case of education and literacy, various field level studies conducted so far had shown that, though there had been an improvement in the overall levels of literacy, in respect of the number of schools, the number of students enrolled and the total number of teachers, there has also been an increase in the level of the drop outs among the students of the primary and the middle school levels. Union budget failed to satisfy the Kothari Commission which insisted six per cent GDP growth rate of education. But still now it is possible to obtain four per cent GDP only.
Likewise, in the health sector, that there had been a distinct improvement in the health indicators such as birth rate, the death rate and the infant mortality rate. Though several sub centres, primary health centres and community health centres had come up in the rural areas during the several plan periods they had not yet become fully operative due to the high incidence of absenteeism on the part of the doctors and the nursing personnel. Similarly, the performance record in the other social sector area such as family welfare, nutrition and the like had been quite disappointing and also lopsided. At this juncture a study of this nature assumes importance. The main reason is the allocation of funds through the budget had failed to spend effectively.

India lives in its villages, and while the cities have grown immensely over the past 20 years, rural areas have not seen that kind of development. For India’s economy to be strong, the rural economy needs to grow. Rural areas are still plagued by problems of employment, housing, water supply, electrification, toilet facility, sanitation and road facilities. This leads to migration of the workforce from rural areas to cities.

There is a tremendous pressure on civic infrastructure systems like water supply, sewerage and drainage, solid waste management and also leads to malnutrition and undernourishment. If the allocated budgetary provisions would be
percolated to the beneficiaries, the social development indicators would be at least moderate. Hence this study focused on various issues related to the budgetary allocations and its actual impact on social sector development.

2.4 Objectives of the Study

The overall objective of the study is to analyse the Union Government’s expenditure on various developmental activities. The specific objectives are

1) To analyse the union government’s budgetary expenditure on education and its impact during the study period.

2) To examine the union government’s budgetary expenditure and its impact on public health.

3) To find out whether the union government’s budgetary expenditure will promote family welfare or not.

4) To find out whether the union government’s budgetary expenditure will promote the nutritional value of the population.

5) To find out the impact of union government’s budgetary expenditure on rural and urban development.

2.5 Hypotheses

The hypotheses formulated by the researcher are
1. There is a positive correlation between the union government’s budgetary expenditure on education and enrolment of students.

2. Union government’s budgetary expenditure on health has failed to promote adequate health centres in India.

3. Union government’s budgetary expenditure on rural and urban development is inadequate to promote facilities in rural and urban areas.

2.6 Scope of the Study

In the present study, an attempt has been made to analyse the trend and the composition of the social sector expenditure in India for 18 years (1991-92 to 2008-09) which come under the purview of first and second generation of the economic reforms. The first generation of the economic reforms was between 1991 and 2000 and the second generation was from 2000 - 2001 onwards. For the study uniform time series data is available. It consists of the study of union government’s expenditure on education which includes primary education, secondary education, higher education, technical education and adult education. There is a link between union government’s budgetary expenditure on education and the enrolment of students, the number of educational institutions, drop out rates and the teacher pupil ratio. The study also includes union government’s expenditure on medical and
public health, family welfare and nutrition. This expenditure has an influence on the birth rate, death rate, fertility rate, coverage of children under immunization, per capita availability of food grains, availability of allopathic hospital beds, doctors and nursing personnel and couples currently protected under family planning methods. It also consists of the union government’s expenditure on rural and urban development. It is correlated to the employment in organised Sector (rural and urban) and employment in public and private sectors.

2.7 Limitations of the Study

As the study is restricted to union government’s expenditure on education, health, nutrition, rural and urban development, it is subject to the following limitations

i) The study has been restricted to a period of 18 years only; from 1991-92 to 2008-09. During this period, there has been no major change in the policy pursued by the government.

ii) The analysis made in this study was based on the data collected from the published sources only. Hence, the data used in this study was subject to the limitations that were usually associated with the limitations of analyzing the secondary data.

iii) This study includes social sector but all aspects of social sector are not covered.
iv) The study aims to analyse the union government’s budgetary expenditure social sector in India. No attempt has been made to make any comparative analysis of India’s expenses with the expenses of the other countries.

v) While collecting relevant data for the study, the researcher had come across to various sources compiled by government and non-governmental organizations. In such situation, the authenticity of the documents and reliability of data, were problems of concern for the researcher. Therefore, care has been taken to consult updated and authentic documents forwarded by government organizations and to avoid inconsistency in data. However, in some cases data collected from a single source available to researcher, could not be reconciled with other sources.

vi) The data availability is not extensive and thus incomplete and/or underreported. Since there has been a limitation in obtaining latest and current data, only past trends have been reflected and used.

vii) The funds allotted for social sector development do not serve the intended purpose for which they are allotted. The funds are distributed through the various schemes of the government. No real schemes existed during the period of this research study. They either broke off in the middle or were
merged to the other schemes. So it was difficult to collect the list of the beneficiaries during the study period exactly.

2.8 Methodology

A research study in any field is an investigation of the unknown factors based on the known factors. Research studies require appropriate and suitable methodology. The methodology is a systematic method, which depends upon the researcher telling the truth about the happenings in the research, and not what he or she wishes to happen in his or her research.

2.8.1 Period of the Study

The period of the study covers eighteen years starting from 1991-92 and extending up to 2008-09. The present study includes the time span of eighteen years after the reform period. The study is an attempt to throw light on the pattern of union government’s budgetary expenditure on social sector in India, with a special emphasis on the social sector development from 1991-92 to 2008-09. One of the reasons for choosing this period is the fact that there had been many variations in the budgetary policies of Government of India with regard to its expenditure patterns and during study period the congress party had been in power at the Centre.
2.8.2 Collection of Data

The collection of data has got its own distinctive methodology. The researcher has used only the available secondary data for the analytical purpose. The data were collected from various sources such as from the Reserve Bank of India Bulletins, RBI Hand Book of Statistics on Indian Economy, RBI Annual Report, RBI Reports on Currency and Finance and various Economic Surveys.

The collected raw data were classified, arranged and computed according to the requirements of the study with a view to study the trends of certain selected macro economic variables in India and the appropriate statistical tools had been employed. The analysis had been further interpreted and the observations which were relevant to the study had been made.

2.8.3 Tools of Analysis

The researcher had analysed the collected data keeping in mind the basic objectives of the study. The tools used for analysis in this study area are

i) Index Numbers

The Index Number is a statistical measure designed to measure the changes in one variable or the changes in a group of related variables spread over a period of time, or with respect to the geographic locations, or such other types of characteristics.
\[ I = \frac{\sum P_1}{\sum P_0} \times 100 \]

\[ P_1 = \text{Current Year} \]

\[ P_0 = \text{Base Year} \]

**ii) Correlation**

The correlation analysis is used to know the association between union government expenditure on education and enrolment. It is computed by using the formula

\[ r = \frac{n \Sigma xy - (\Sigma x)(\Sigma y)}{\sqrt{n \Sigma x^2 - (\Sigma x)^2 } \sqrt{n \Sigma y^2 - (\Sigma y)^2}} \]

and the significance of co-efficient of correlation obtained is tested by the formula

\[ t = \frac{r \sqrt{n-2}}{\sqrt{1-r^2}} \]

**iii) Compound Growth Rate**

A trend in semi log form was used to estimate the compound growth rate of the dependent variables, union government’s budgetary expenditure allotted for health centres, rural facilities and urban facilities during the study period of 18 years. The functional form used to estimate the compound growth rate is

\[ Y = ab^t \]
Where Y - dependent variable

t - independent variable

‘a’ and ‘b’ - Parameters to be estimated

b = (1+r) where ‘r’ - Compound growth rate

The compound growth rate percentage is calculated by using the formula (Antilog b – 1) x 100.
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