THE FISCAL CRISIS AND REVENUE MOBILISATION IN KERALA: A STUDY OF THE TAX COMPLIANCE BEHAVIOUR

Thesis submitted to the University of Calicut for the award of the degree of

Doctor of Philosophy in Economics

By

NEERAJA RAJENDRAN

Under the supervision of

Dr. K.P MANI
Retd. Professor
Department of Economics
University of Calicut
Dr. John Matthai Centre, Thrissur

DEPARTMENT OF ECONOMICS

UNIVERSITY OF CALICUT

DR.JOHN MATTHAI CENTRE

ARANATTUKARA, THRISSUR

OCTOBER 2022

Department of Economics,
University of Calicut
Dr. John Matthai Centre,
Aranattukara, Thrissur

Dr. K.P Mani
Professor (Retd)
Department of Economics
University of Calicut,
Dr. John Matthai Centre,
Aranattukara, Thrissur

CERTIFICATE

This is to certify that the suggestions and corrections made by the adjudicators have been incorporated in the thesis of my research scholar, Neeraja Rajendran, titled "THE FISCAL CRISIS AND REVENUE MOBILISATION IN KERALA: A STUDY OF THE TAX COMPLIANCE BEHAVIOUR"

Place: Thrissur

Date: 27/2/23.

DR. K.P MANI, Professor (Retd)
Department of Economics, University of Calicut,
Dr. John Matthai Centre, Aranattukara
Thrissur

DEPT. OF ECO... ...TTHAI CENTRE ★ THRISSUR-680 618 ★

CERTIFICATE

This is to certify that this thesis entitled **'THE FISCAL CRISIS AND REVENUE MOBILISATION IN KERALA: A STUDY OF THE TAX COMPLIANCE BEHAVIOUR'** being submitted by **NEERAJA RAJENDRAN** for the award of the Degree of Doctor of Philosophy, to the Department of Economics, University of Calicut, Dr. John Matthai Centre, Aranattukara, is a record of bonafide research work carried out by her under my guidance and supervision. No part of the thesis has been submitted for any degree, diploma, fellowship or other similar title or recognition before. Plagiarism is checked and found within the permitted limits.

Supervising Teacher
Dr. K.P Mani
Retd Professor
Department of Economics
University of Calicut
Dr. John Matthai Centre, Thrissur

Co-guide
Dr. Zabeena Hameed P
Associate Professor (HoD)
Department of Economics
University of Calicut
Dr. John Matthai Centre, Thrissur

DEPT. OF ECO... MATTHAI CENTRE * THRISSUR-680 618 *

DECLARATION

I, **NEERAJA RAJENDRAN,** do hereby affirm that the project entitled **'THE FISCAL CRISIS AND REVENUE MOBILISATION IN KERALA: A STUDY OF THE TAX COMPLIANCE BEHAVIOUR'** submitted to the University of Calicut for the award of the Degree of Doctor of Philosophy in Economics is a bonafide record of research work I carried out under the guidance and supervision of **Dr. K.P Mani,** Retd. Professor, Department of Economics, University of Calicut, Dr. John Matthai Centre, Thrissur and **Dr. Zabeena Hameed P,** Associate Professor, Department of Economics, University of Calicut, Dr. John Matthai Centre, Thrissur. I also declare that no part of this thesis has been presented for the award of any degree, diploma, fellowship, or other similar title or recognition of any University/Institution before.

Neeraja

Place: Thrissur

NEERAJA RAJENDRAN

Date: 28-02-2023

ACKNOWLEDGEMENT

I place on record my immense gratitude to all those who contributed directly or indirectly to complete my endeavour. At the outset, I wish to express my profound and sincere gratitude to my supervising teacher, Dr. K.P. Mani, Retd. Professor, Department of Economics, University of Calicut, Dr. John Matthai Centre, Thrissur, for his scholarly guidance, meticulous supervision and untiring efforts taken for guiding the study. I am extremely indebted to my supervising teacher for the support he has extended to me in every stage of this research work, which fortified me with confidence and enthusiasm to carry out this study to completion.

I place on record my sincere gratitude to my co-guide Dr. Zabeena Hameed P, Head of the Department of Economics, University of Calicut, Dr. John Matthai Centre, Thrissur, for the valuable suggestions and advice extended throughout the study. I am thankful to Dr. D Shyjan and Dr. KX. Joseph, Dr. D. Rethnaraj and Dr. K.V. Ramachandran, Former Heads of the Department for their valuable suggestions and constant moral support.

I am also thankful to the former Librarian of Dr. John Matthai Centre, Shreeja miss, the present Librarian Rashik Sir and other non-teaching staffs in the Department of Economics, especially to Manshad sir, Stanly chettan, Sheeja chechi, Ayishachechi and Sanitha chechi for their sincere assistance given to me.

I am fortunate to have a group of friends who showered their immense love and affection for me in all stages of my research work. I am thankful to Athira, Vidya and Smitha chechi for all the unconditional help and support at all sorts of times. I am also thankful to Shima chechi, Ajitha chechi, Preetha chechi and Vini chechi for their unconditional support and encouragement in completing this work. I am extremely thankful to Sarath for all the time and effort he has taken to help me complete this work, right from the stage of deciding the topic to the final stages. I also thank Sherin for being there whenever needed. I am thankful to all my colleagues and friends who have helped me in various ways with the preparation and completion of this work.

I expressmy sincere gratitude to Mr. Dinops Jose, for the support and services rendered in the neat execution of the work.

No words could ever express my sense of love and gratitude to my dear mother, father and sister for their unconditional love, care, mental support and sacrifice. I also express my *gratefulness to my husband for the love, care, valuable support and sacrifices made to help me complete the research work. Finally, I deeply thank all those who have contributed in some way or the other to help me reach the final stage in research work. Above all, I am extremely grateful to Lord Almighty for the benevolence and mercifulness which has made this work see the light of day, without God's invisible hands I would not have been able to successfully complete my work.*

Thank you all. ***NEERAJA RAJENDRAN***

CONTENT

LIST OF TABLES

LIST OF FIGURES

ABSTRACT

THE FISCAL CRISIS AND REVENUE MOBILISATION IN KERALA: A STUDY OF THE TAX COMPLIANCE BEHAVIOUR

The study seeks to examine the fiscal crisis in Kerala in the light of the composition and pattern of expenditures of the state, analyse the trend and identify the factors determining the mobilization of tax revenue by studying the tax compliance behaviour and the factors affecting it. The study makes use of secondary and primary data for this purpose.

The inferences deduced from the analysis of public expenditure expose the burden shouldered by the state to meet its obligations of salaries, pensions and interests. The implementation of a wide range of subsidies and freebies has added to the woes. The chains laid on the state governments in fixing and implementing taxes further aggravate the fiscal crisis. The study deduces that committed expenditures and limited scope of revenue mobilisation directly influence fiscal crisis.

An imminent danger that has revealed itself through the composition of expenditure and expenditure, is the mounting debt. The unsustainability of debts poses the danger of a fiscal crisis paving way for a grave debt crisis. Tackling mounting debt and higher expenditures have been the hurdles for the state. The recent calamities that the economy faced have been a catalyst in aggravating the crisis. The state increasingly resorting to out-of-budget borrowings could also add to the mounting debt if the trend of revenue growth is not reversed. The practice of Kerala using borrowed money raises severe concerns. Since the expenses incurred using these loans do not produce revenue, the significant portion of the money being used to support revenue expenditure suggests that the repayment of these debts will have to be covered by funds from other sources. Even though the share of revenue expenditure has decreased, which is a good indicator, it does not necessarily mean that the money is being used effectively. The same has been utilised to finance debt repayments in years where a smaller portion of revenue expenditures was supported with borrowed funds. Such a trend would only aggravate the crisis. A fiscal crisis is more associated with the pattern of revenue and expenditure rather than the volume of revenue and expenditure. The tax compliance index of the factors depicts tax morale as a strong influence. However, the state's tax administration system is believed to be unsatisfactory. The widespread belief is that the state's developmental efforts and services are out of proportion to the taxes its citizens pay. Therefore, this fiscal psychology may persuade people to stop paying taxes on time and in a consistent manner. But the sense of justice and morality is considered to overpower such decisions. The study makes the case that people's attitudes and behaviours towards taxes and compliance are significant factors that influence the state's ability to raise revenue.

Keywords: Public Expenditure, Tax Revenue, Fiscal Crisis, Tax Compliance

CHAPTER I

DESIGN OF THE STUDY

The macroeconomic environment of the country has changed dramatically over the last five years. The Planning Commission was abolished, and NITI Aayog was established in its place. This was coupled with the abolition of the distinction between Plan and non-Plan expenditure in the Union Budget of 2017-18, following the conclusion of the Twelfth Five-Year Plan in March 2017. The constitutionally mandated practice of classifying spending as revenue and capital has replaced this. The Fourteenth Finance Commission increased the devolution to the States from the divisible pool from 32 percent to 42 percent. However, the assistance meted out to the States through the Planning Commission has been suspended while the States' share in the Centrally Sponsored Schemes has been increased.

The introduction of the Goods and Services Tax (GST) was the most important structural reform in the indirect tax regime. Goods and Services Tax is projected to eliminate the negative effects of cascading taxes or 'tax on tax' by combining a large number of Union and state taxes into a single tax. This will pave the way for a shared national market. From the perspective of the customer, the main benefit would be a projected reduction in the overall tax burden. The assignment of concurrent jurisdiction for the levy of GST to the Union and the States necessitated a one-of-a-kind institutional process to ensure that decisions about the tax's structure, design, and operation are made jointly by both. The GST Council's institutional development as one of the cornerstones of fiscal federalism has been a key plus in this regard.

However, there have been some specific problems in implementing GST. The Union's and States' budgets have been impacted by lower-than-expected revenue growth and challenges in the settlement process. Several adjustments in rates, returns, fluctuating timelines for filing returns, delayed introduction of anti-evasion tools such as invoice matching, reverse charge, technical issues, and cumbersome compliance processes all contributed to lower GST revenues than predicted in the initial phase.

The COVID-19 pandemic has exposed up the wide gaps in the healthcare system in the country. It has brought to the front humongous significance of the health system of the country as a whole and of the states, individually. However, the pandemic has not only reiterated the importance of social health but also accentuated the health of the economy. The health of an economy is mirrored majorly through its financial soundness. The financial strength of an economy is evaluated by the magnitude of the various fiscal indicators, such as the fiscal deficit and the revenue deficit. Fiscal uncertainty is at an all-time high during pandemic times. The Main Report (Volume 1) of the Fifteenth Finance Commission states that the Gross Domestic Product and the government revenues were crumbling in 2020-21 and were causing snowballing pressure on the fiscal and debt positions on the Union and State finances.

In more ways than one, the pandemic has complicated fiscal management at the federal and state levels, as well as the federal fiscal arrangement. For starters, it has necessitated increased spending on Covid-affected treatment and healthcare facilities, as well as aid for people who have lost their jobs as a result of the Great Lockdown. Second, the epidemic has had a negative impact on government revenue at all levels. With a drop-in activity, tax revenue dips can become very significant. People shift from higher tax bands to lower tax slabs, and in some situations, even below the exemption level, as their personal incomes diminish. Similarly, when output and sales fall while fixed expenses and debt amortization remain constant, many businesses lose money instead of making money. As a result, personal and corporate income tax revenues tend to fall faster than income, and buoyancy – the percentage change in revenues for a percentage drop in income – might be higher than in the past when income was rising. In the same way, as income and activity fall, consumers cut back on non-essential purchases, causing indirect tax receipts to fall faster than income. In the aftermath of the epidemic, governments are expected to face a double crisis: a resource shortage and an upward tendency in spending, or what has been dubbed the "scissors effect" by the Fifteenth Finance Commission.

Long before the emergence of the Covid-19 epidemic, the Indian economy was showing indications of slowing. From 2012 onwards, the most notable element of this recession has been a persistent drop in the country's investment rates. India's gross fixed capital creation fell from 34.3 percent in 2011-12 to 30.8 percent in 2017-18 as a percentage of GDP (Handbook of Statistics on Indian Economy, Reserve Bank of India). This was a turnaround from India's economic development experience during the middle of the 2000s and 2012 when the economy was boosted by a surge in investment. The demonetisation of high-value currency notes in India in November 2016 was a severe setback for the country's economy, particularly for informal and rural production and consumption. India's economic issues were exacerbated by the banking sector's crisis (high levels of non-performing assets) and the problems related to the implementation of the Goods and Services Tax (GST) regime in 2017. India's export potential decreased due to the global economy's already sluggish development.

1.1 An Account of Kerala Economy: Glimpses of the Past Decades

The experience of Kerala’s economy is only worse, which has had to deal with shocks beyond direct economic shocks. The Okchi cyclone in 2017, unprecedentedly strong floods in 2018 and 2019, the attack by the Nipah virus infection in 2018 and 2019, and the advent of the Covid-19 pandemic in 2020 are among these shocks. Natural disasters wreaked havoc on the state economy, claiming the lives and livelihoods of many people and wreaking havoc on the economy's productive sectors. Kerala's growth rates, which were higher than the national average, began to decline in 2019-20. The downward trend in growth rates has been aggravated with the crisis caused by the Covid-19 pandemic and consequent lockdown. However, since Kerala's economic system has been established on the backs of decades of public activism in the pursuit of social justice, the economy has developed certain intrinsic characteristics that have assisted the state in surviving a succession of setbacks over the previous several years.

Kerala is noted for its distinct approach to social and economic development, as well as a variety of welfare initiatives that have become cornerstones of the state's policies. The government has made every effort to promote social welfare and protection for all by balancing welfare measures with economic discipline in this endeavour. In this regard, the financial difficulty suffered from 1997-98 to 2005-06 deserves to be mentioned. This financial hardship was felt by both the federal government and all state governments. Several fiscal changes were implemented throughout the period stated above due to the worsening macroeconomic condition and budgetary imbalances in the country. Fiscal restraint and consolidation, both at the federal level and at the state level, were regarded to be a must for effective economic management. To decrease macroeconomic imbalances and control inflation, the need to eliminate revenue deficits, restrict fiscal deficits, and make government debt situations sustainable and manageable became paramount. With the implementation of the Kerala Fiscal Responsibility and Budget Management Act 2003, the small fiscal leeway available at the state level was squandered.

Following a period of extended economic stagnation, the national economy began to improve in FY 2004-05. Following that, the economy began to stabilise, and investments and growth began to resume. Value Added Tax (VAT) was implemented in 2005-06. Growth in the economy, together with the installation of VAT, has given hope to the country's fiscal consolidation effort. Kerala saw a strong increase in revenue in the fiscal year 2006-07. This provided the impression that the State could achieve revenue-driven fiscal consolidation. The State was converging towards the fiscal indicators set forth in the Kerala Fiscal Responsibility Act despite massive expenditure commitments such as pay revisions, discharge of expenditure obligations, and so on.

Despite the global financial crisis that began in 2008, the state's revenue collection grew steadily until the fiscal year 2012-13. However, with the slowing of the economy in FY 2013-14, things took a turn for the worse. The State's Own Tax decreased to roughly 10 percent. The Centre's tax collection fell, resulting in a reduced proportion of transfers from the Centre. For the past seven years, State’s Own Tax Revenue growth has remained consistent at roughly 10 percent. At the same time, revenue expenditures are increasing at a rate of roughly 15 percent. Since 2013-14, the revenue account's imbalance has been increasing year after year. Better fiscal indicators were registered in 2015-16, despite the fact that own tax revenue growth remained around 10 percent and Revenue Expenditure growth was around 15 percent because it was the first year of the Fourteenth Finance Commission period, and the share of vertical devolution increased from 32 percent to 42 percent, and the state's horizontal share increased from 2.30 percent to 2.50 percent. In addition, Rs.4640 crore Revenue Deficit grant served as a cushion to further lower the Revenue Account's imbalance. A compositional shift in the State's finance occurred as a result of the abrupt increase in Central transfers for a limited time in 2015-16. Central Transfers as a percentage of Revenue receipts increased during this time due to the increase in State’s Own Tax being stagnant and the budgetary imbalances in the State meanwhile widened.

Several other factors beyond the State Government's control exacerbated the economic slump during this time. High denomination notes were removed from circulation in the country in November 2016. Both the organised and unorganised sectors were impacted, slowing the economy's growth even more. GST was implemented in July 2017. The idea was that the GST regime would result in better tax administration, which would lead to increased compliance and revenue collection. Despite the fact that the implementation had been discussed for a long time, the preparation for it was insufficient. When the GST was implemented, there was a lot of uncertainty. From time to time, ambiguity about the rates used, inability to generate waybills, delays in the filing of returns, and a slew of other issues arose. There was no one-size-fits-all answer to all of the GST implementation's problems. The uncertainty fostered an environment that was favourable to tax avoidance. GST collection growth at the central level and in the states has lagged behind expectations set at the time of implementation.

The fiscal year 2018-19 was no exception when it came to exogenous issues confronting the state's fiscal front. The state suffered huge economic losses as a result of the severe floods that devastated the state. There was a significant loss of life, as well as property damage and people's livelihoods. Almost all the sectors of the State economy were hit. Just when the State was emerging from the severe impact of the flood, heavy rains followed in 2019-20. The latest in the string of problems is the COVID-19 pandemic that hit the State. Large scale interventions were made by the Government in health care and relief.

The discussion above prove that the changing governments of Kerala have been welcomed by a constantly draining state treasury. Even though the reasons put forward are often viewed as a part of the political blame game, this highlights that Kerala has been historically poor in its fiscal management. The reasons for this have been discussed and debated over the years. One of the major reasons for drainage of the state treasury is attributed to the mounting public expenditure. The reasons for this are the committed expenditures incurred for the payment of salaries, pensions and interest payments. It is the revenue expenditure that occupies a major portion of the total expenditure of the state. The capital expenditures that the state makes are mostly for the roads and bridges.

Following the recommendations of the 12th Finance Commission, most states, including Kerala, passed the Fiscal Responsibility and Budget Management Act (FRBM), which provides the legislative framework for this. In Kerala, there is little room for savings in revenue expenditure and prudential management because committed expenditures (salary, pension, and interest payments) account for over 112 percent of total state own taxes (SOTR), while state own revenue is far above 101 percent (based on 2009-10 numbers). Because Kerala has a long life expectancy (about 76 years) and a low retirement age (55/56), its pension liabilities are growing rapidly. A look into the state's fiscal management over the last two decades, reveals that a large portion of the fiscal deficits have been used to support revenue expenditure.

Another reason contributing to the draining treasury is the limited sources of revenue for the state government. The sources are limited because the major taxes such as the income tax and the service tax are appropriated by the Central government. This narrows down the avenues of resource mobilization available for the government. A close examination of the budgetary statements of the various years reveals that the expenditures incurred by the state are more than the revenue earned by them. This has also paved way for serious revenue deficit for the state (Isaac and Mohan 2016).

This shortage of funds is met through borrowings which are mainly through internal sources as well as from the Reserve Bank of India (RBI) in the form of either Ways and Means Advances or Over Drafts. The large scale borrowing also accelerates the crisis. This unbalance between the revenue and expenditure and the resultant borrowings contribute to the fiscal crisis that the state has been facing over the years. The state has always had a condition of fiscal crisis since the mid-eighties (George and Krishnakumar 2003). The revenue deficit has further deepened the fiscal crisis. It has only aggravated over the years. With the enactment of the Fiscal Responsibility and Budget Management Act, 2003 fiscal deficit has to be limited to 3% of GDP. Consequently, measures were sought to reduce the fiscal deficit. Reduction of public expenditure was one of the measures proposed. Reduction in public expenditure implies the withdrawal of the state from the state activities. But this is not a feasible option for the economy. In a state like Kerala where the government plays a prominent role, such a withdrawal will have various repercussions.

Another way out is to raise the required revenue through taxation. The major taxes for the state are the sales tax and Value Added Tax and the Goods and Services Tax, being the latest amendment. Being an indirect tax, this is collected from the people without any hitch. But why is it that the state is unable to appropriate the desired money from the same even after the public has paid the sales tax? It is here that questions on compliance of the indirect taxes and the mechanism of tax administration gain prominence since tax thus collected from the consumers does not reach its final destination. Therefore, revenue mobilization through these taxes has not been able to meet the emerging and ever-increasing expenditure requirements (PB Rakhe 2003).

1.2 Statement of the Problem

The severity of the fiscal crisis in Kerala is blaring large through its deficit indicators. The fiscal deficit makes up 4.33% and revenue deficit accounting for 2.51 percent of Gross State Domestic Product (GSDP). The cash balances of the state have continuously decreased over the years, by 19 percent in 2018-19 and by 8.75 percent by 2019-20. Debt to GSDP has reached 31.05 percent in 2019-20 from 28.57 percent in 2015-16. Repayment of public debt eats up 27.78 percent of total expenditure. Many of the studies that have been undertaken to explain the fiscal crisis argue that the poor revenue mobilization is the main reason for it. The fact that the state is not able to raise the required revenue through sales tax/VAT opens the problem of tax administration and tax enforcement which hints a lack of efficiency on the part of the government.

The limited mobilisation of the tax revenue also raises doubts on the tax compliance, the blame for which not only rests with the traders who refuse to issue bills to the consumers, but also with the consumers who do not ask for the bill. However, there is hardly any attempt to explore the reasons related to the attitude and behaviour of the consumers and the traders towards the tax and compliance. This question is important because the attitude and behaviour of the people heavily influence the revenue mobilization of the state. Therefore, the present study tries to examine the fiscal issues of the state and then explores its reasons, with special focus on the attitude and behaviour of the people in terms of deterrence, tax morale and commitment. As Marandu, Mbekmize and Ifezue (2014) argue, there are economic, cultural, social factors that influence the tax compliance behaviour of taxpayers. This behaviour, in turn, will influence the revenue mobilization.

Why is it that the state government cannot ensure proper tax compliance from its people? What is it that makes the people evade taxes? Is it the dissatisfaction with the services provided by the Government in return for the taxes they pay? Is it their complacency on knowing that the others, too, evade taxes? Are there other aspects contributing to tax compliance? These are the important questions that the study seeks to research on.

1.3 Objectives

1. To examine the changing structure and composition of expenditures in Kerala
2. To analyze the trend and identify the factors determining mobilization of tax revenue
3. To examine the fiscal crisis in the light of the composition and pattern of expenditure and revenue
4. To study the tax compliance behaviour of the public and businessmen and the factors affecting it.

1.4 Review of Literature

The section presents the studies and literature relevant to Kerala's finances, fiscal crisis and tax compliance. A picture of the national picture is also presented in the first section.

1.4.1 Central Finances: A Review

The section presents the works on the Indian works on national public finance.

Chelliah (1980) in the report titled "Reform of the Sales Tax" makes recommendations for sales tax reforms in India. The recommendations proposed were aimed to preserve the fiscal structure and the fiscal autonomy of the country. It was suggested that the sales tax be converted to a state specific tax so that the state could raise their revenue and complement central taxation. Reforms in the structure of sales tax should be to ensure that the states are given an instrument which enables them to tax the consumption of their residents without disturbing the economy. The need for a form of sales tax which would combine the merits of the first and the last point levies is envisaged. This was proposed through that value added tax which was in the form of a multi-point turnover tax. A failure by the state in evolving a rationally designed sales tax could be dealt by replacing the excise and sales tax with a centrally administered VAT.

National Institute of Public Finance and Policy (1985) submitted a report on legislative reforms titled "Sales Taxation in West Bengal". The objective of the study is to consolidate various laws of sales tax in the state of West Bengal into a consolidated one. For integrating the existing laws their provisions were analysed and common provisions were identified on the one hand and provisions which are distinctive to particular Acts on the other. The machinery provisions in the different Acts have a large measure of similarity and have been replaced by a common set of provisions. Provisions which were in the rules were brought into the enactment of the bill as independent sections. The incorporation of the civil procedure code, the criminal procedure code and also the whole sale integration of recovery procedures into the enactment of the draft bill has increased the size of the bill.

Sen and Tulasidhar (1988) studied the "Taxable Capacity and Tax Effort of States in India" in an attempt to estimate the normative yields from the major tax heads of the states. The terms of reference set are precisely the estimation of the taxable capacity and efforts of the states by the representative tax method. The period of study pertains from 1982-83 to 1984-85. The representative tax approach involves identification of actual bases and then calculating an effective tax rate for each tax as a ratio of actual tax revenue to the actual or proxy base. A normative tax rate is then derived from these effective tax rates over the observations and applied to the actual or proxy bases used. This yields taxable capacity or the tax potential. Sales tax potential and tax effort show sharp differences in tax put in by various states. The tax effort of Kerala is highest and is lowest in Bihar. The dispersion of tax effort shows gaps in tax administration.

Purohit (1991) in "Reforms in the Indian Sales Tax System" also points out the shortfalls of the sales tax in mobilising revenue. Through the report he intends to analyse the possible reforms in the structure of both the GST and the Central Sales Tax under the sales tax systems in the Indian states. The multiplicity of tax rates blunts the progressive effects and also causes administrative and compliance costs. This creates the need to reduce the number of tax rates. The system of sales tax comprised of various forms; single point, double point and the multi point. Rationalising the point of levy is also a suggested reform. There should be a system which is a mixture of first point and last point levy. A concession on tax on inputs should be provided to the manufacturers. He points out that the lack of uniformity in the tax rates, multiplicity of rates and inefficient administration affect the revenue mobilisation of the country. The study calls for a certain degree of uniformity in the tax rates and improvements in administration.

Sen and Rao (1993) report to the Resources Commission titled "State Finances in Kerala: Selected Issues" suggest that the revenue potential of tax has not been fully tapped in Kerala. The objective of the commission was to estimate the State's tax revenue potential, to analyse the structure and operation of sales tax and State excise duties, to rationalise these taxes and to examine the scope for improving their revenue productivity and to examine the possibility of raising recovery rates in specific areas through more rational pricing of public services. The increase in sales tax was attributed to an increased tax base rather than an increase in the actual collection. An improvement in the tax productivity was projected through simplification and rationalisation of the tax system. The multi-point tax structure was to be replaced by value added tax. Better tax administration and enforcement also contributes to revenue mobilisation. Point of levy followed under sales tax also accounts for cascading effect.

Purohit (1993) in the paper titled "Adoption of Value Added Tax in India: Problems and Prospects" discusses the consequences of introducing the Value Added Tax in the country. It shows the general trends in the structure of VAT comprising the rates, base and exemptions from tax. Taxation of services follows two approaches, the integrated approach which includes all services under VAT and a selective approach which specifies a few services to be brought under the tax net. The study suggests the implementation of value added tax as a corrective measure for the problems of sales tax. Multiplicity of levies, cascading effect, high tax rates, lack of transparency and inefficient administration are the hitches of sales tax that have been highlighted in the study. The tax system is not a single system in itself but an overlapping of many systems.

Aggarwal (1996) in “Modified Value Added Tax (MODVAT): Structure and Resource Mobilisation” aims to analyse the trends in the growth of revenue from union excise duties and suggest measures for raising the growth rate of revenue from union excise duties under the MODVAT system. The revenue and value added tax credit figures have been obtained from the Department of Excise and Customs. For the year 1995-96, net revenue is a provisional figure and value added tax credit is estimated by applying the ratio of value added tax credit to net revenue for the first six months of 1995-96 to the net revenue for the full year 1995-96. Figures of gross revenue were obtained by adding value added tax revenue to net revenue. The ratio of net revenue to total GDP was found to decline. The decline in these ratios is blamed on the tax reforms which focused on rationalisation and simplification of the structure of Union excise duties. With the top rates cut substantially, the scope of value added tax scheme has been enlarged to cover more commodities and also to cover capital goods. Revenue projections of Union excise duties were done by projecting the gross revenue and MODVAT credit separately. He opines that the process of tax structure rationalisation and reduction of tax rates has to continue to ensure mobilisation of resources. Removal of exemptions and other concessions are suggested to raise revenue. It was also said to help control evasion. Exemptions open up the possibility of misusing the provisions of the scheme. The levy of sales tax on commodities like tobacco sugar and textiles was proposed to raise more revenue for the state. Improvement in administration was also projected as a method for resource mobilisation.

Aggarwal (1999) in “Who pays the tax? A study of Incidence of Indirect taxes in India” aims at estimating the incidence of the major indirect taxes in India. The incidence is estimated using a model based on input-output technique to compute the effective tax rates by including the element of sales tax in to price equations. The concept of absolute tax incidence was used. The model treats the ad-valorem tax rates as specific tax rates. The study concludes that the sales tax accounts for a significant part of the effective tax rates of most commodities. The combined effective rates for luxuries were high. Sales tax was a major part of the combined tax burden for necessities. The effective tax rates were found to include input taxation. The incidence of the tax was large upon the urban consumers as compared to their rural counterparts. The distribution of burden of individual taxes was progressive in rural and urban areas. The need for reducing input taxation so as to control the rise in price by more than the tax has been raised.

National Institute of Public Finance and Policy (2000) gave a report on "Reform of Inter-State Taxation in India". The report seeks to give an account of the inter-state taxes of India in the light of the recommendations of the Taxation Enquiry Commission of 1953-54. The recommendation by the commission to lower the tax rate of the central sales tax was not heeded to and was raised. This led to the tax being a barrier to trade. The closed economy framework with quantitative restrictions on imports as well as high tariff rates, escalation of costs and the fragmentation of the market caused by the central sales tax were not made visible. The central sales tax leads to escalation of costs, economic distortions and fragmentation of the Indian common market. Therefore, the central sales tax should be phased out with states and the central government given enough time to readjust the tax structure. This would help the states more from their respective residents and less from the residents of the other states. The centre should also make available additional tax space to the state governments.

Purohit (2002) in his paper titled "Harmonising Taxation of Inter-State Trade under a Sub-National VAT: Lessons from International Experiences" addresses the problems of introducing a harmonised VAT in a federation by drawing lessons from other countries to understand the structure of VAT. In this regard case studies of countries such as Brazil, Canada and India are presented. Through this the paper also makes recommendations for a suitable VAT structure.

Adoption of different structures of sales tax by the states along with the differences in the levy point caused inefficiency in the tax system. The sales tax related incentives provided by the states took the form of tax competitiveness and harmful tax practices in a federation.

Rao and Rao (2005) in the report to the Finance Commission titled "Trends and Issues in Tax Policy and Reform in India" address the tax policy and its reforms. The objectives of the study are to analyse the Indian tax system, its evolution and the reforms and also its efficiency implications. The study shows significant growth in tax reforms and tax administration has contributed to the growth of the tax-GDP ratio. The study also points out that revenue productivity and efficiency in the tax system can be ensured with a proper mechanism to relieve taxes on inter-state transactions and a proper information system. The major objective of the reforms must be to reduce the distortions and compliance costs. Simple tax structures must be brought along with broadening the tax base. Information based tax administration and online filing of tax returns are the key administrative reforms suggested in tax administration.

Rao (2008) in the paper titled "Goods and Services Tax for India" sets the objectives to identify the likely form the proposed Goods and Service Tax would take and the issues that needs to be resolved before its implementation. It suggests a tax rate which would make the tax regime revenue neutral. It also tries to project the impact of the proposed tax reform. The revenue neutral rates have been estimated using the All India Input-Output Matrices of 2003-04. Approaches that use overall GDP numbers and private final consumption expenditures are used for estimation. Zero rating with pre-payment was considered a better alternative for addressing evasion rather than zero-rating by itself. Efficiency of administration was assured through an integrated tax administration at two levels. High rates of tax are considered to spur non-compliance. Expansion of the tax base to include more activities was suggested to ensure more revenue even by lowering the tax rates. A careful assignment of tax powers was also called for.

Rao (2009) in the article “Feasibility of Introducing GST in April 2010” examined the feasibility of introducing GST in 2010, the date set by the government earlier. The objective of the work is to identify the adverse consequences in the wake of hasty implementation and gives the measures to be taken by the centre and state governments in order to reap maximum benefit from the new tax regime. This is done by examining the economy’s previous experiences of bringing in tax reforms. He warns of the adverse consequences in the wake of hasty implementation and gives the measures to be taken by the centre and state governments in order to reap maximum benefit from the new tax regime. A mechanism for compensation of revenue losses was called for which would ensure a smooth transition to the new indirect tax system. A mechanism to relieve the tax on goods and services on interstate transactions is also sought.

Rao (2009) in the work “Goods and Services Tax: Some Progress towards Clarity” seeks to clarify on the design and implementation aspects of GST. The paper makes use of the recommendations of the Empowered Committee report to detail the features of the tax systems along with clarifying the same further. Revenue mobilisation can be achieved by reducing the cost of compliance, cost of collection and the costs due to distortions. But the harmonised system which the GST follows poses a threat to the fiscal autonomy, a solution for reducing the aforesaid costs, of the nation. The ability of the states to control the tax rates is questioned.

Rao and Mukherjee (2009) in the report “Study on Mobilisation of State Taxes and State’s Potential to Raise Revenues – Jharkhand” study the mobilisation of taxes of Jharkhand and its potential to raise revenue. The objective of the report is to give an assessment of the own tax receipts of the Government of Jharkhand. Annual consumption expenditure as a ratio of VAT collection of 2007-08 is used. The study records an increase in the share of own tax revenue in GSDP of the state. Profession tax introduction is also proposed. The study estimates that the revenue collection is small when the taxable consumer expenditure is considered. This is attributed to the possibility of a large population remaining outside the tax net. The poor condition of the state is reflected in tax administration too. The department finds it difficult to provide complete information on the proportion of tax collected. This is seen as a hindrance in conducting a rational review of the tax administration of the state. The variations in tax collection across districts were attributed to grouping of revenue from a few locations which also result in the concentration of imports in the few locations.

Rao and Chakraborthy (2010) through “Goods and Services Tax in India: An Assessment of the Base” attempt to estimate the tax base for the, then proposed, GST and to reach a more realistic estimate of the revenue neutral rates. The objective of the study can be stated as to estimate the base for the proposed GST on conservative assumptions to arrive at a more realistic estimate of the revenue neutral rates across states. The revenue neutral rates have been calculated to assess the tax base of GST. The data pertaining to the fiscal year 2007-08 have been used to estimate the revenue neutral rates. They opine that the base that had been set by excluding electricity duty and passenger and goods tax was very conservative. Inclusion of more services into the tax base is recommended.

Purohit (2010) in “Issues in the Introduction of Goods and Services Tax” paves the path for administrative changes in the implementation of the goods and services tax in the country. The convenience of the taxpayer and minimisation of the compliance cost is also addressed. Even though a dual GST is suggested, it is recommended that the collection should be undertaken by a single agency where the payment is made by each government individually. Reduction in corruption is expected to be achieved by minimising the interaction between the taxpayers and the tax officials. This calls for a business process model of GST through the introduction of better information technology which can be useful for both the large and the small dealers alike. Setting up of a regulatory and supervisory body having statutory authority is also recommended to ensure uniformity in the tax rates.

Chakraborty and Manay (2011) studied the revenue implementation of GST in the state of Karnataka in “Revenue Implications of GST and Estimation of

Revenue Neutral Rate: A Study of Karnataka". The objective of the study set is to examine the tax base of the state of Karnataka and to arrive at a revenue neutral rate for the state. The tax turnover method has been used to estimate the base of tax revenue. Weighted average tax rates have been used for the estimation of taxable turnover in Karnataka. The study concludes that GST in a two rate structure would be higher than the general VAT rate of 12.5 percent. Reducing the number of commodities in the lower category can give a higher base at a lower revenue neutral rate. The base of services does not include services rendered by households and other services that are not registered. If these services are also included under the tax net the tax base of the services would be higher and that would contribute to a lower revenue neutral rate.

Agrawal (2011) in "India's Goods and Services Tax – A Primer" gives an account of the impact of GST on the economy of different countries. GST in New Zealand and Canada caused short term rise in the prices. The paper uses case study method to meet the purpose. In the countries of Australia, New Zealand and Canada the new tax was introduced at the end of a recession period, and it was followed by a subsequent upswing of the economy. In all the three cases the revenue generated exceeded expectations. A similar experience is expected in India with the implementation of GST. Two problems that are expected are inflation and a fall in the tax revenue. Inflation is attributed to the various regulatory bodies and uncertainty in the new tax regime which would be solved in the long run. In the case of India, inflation is expected to persist longer because of the inefficiencies in the supply chain along with higher information asymmetry.

Rao and Chakraborthy (2013) in "Revenue Implications of GST and Estimation of Revenue Neutral Rate: A State Wise Analysis" analyses the revenue implications of GST and the revenue neutral rates through a state wise analysis. The objective of the study is to estimate the revenue neutral rates for services at the states for the GST regime. The study uses the tax turnover method to estimate the tax base. Mapping National Industrial Classification codes with data set has also been done to find out the value of services for the purpose of taxation. GST rate in a three-rate structure is higher than the general rate of VAT. Lessening the number of items in the lower rate category is recommended. Charging same tax rates for goods and services brings down the revenue neutral rate. Moreover, the introduction of negative list is expected to bring in a positive impact on the tax base and help in lowering the revenue neutral rate. The inclusion of the informal sector into the GST net would increase the actual tax base and the revenue neutral rates would be low.

Rao, Mukherjee and Sengupta (2013) submitted the report “Revenue Potential for Himachal Pradesh: An Assessment and Suggestions for Reform” to the Government of Himachal Pradesh. The objectives of the report are to study the trends in the revenue receipts of Himachal Pradesh to identify the area of weak performance, to give a detailed account of major taxes and to study the non-tax revenues of the state and suggest measures for improving tax performance. The study shows scope for improvement in the commercial tax revenue since the ratio of commercial tax to GSDP is low. The collection of state excise has declined as a ratio to GSDP. The performance of transport tax also shows a similar picture. The need for drastic changes in the administration departments is emphasised. Broadening the levy of entry tax is suggested as a policy recommendation for improving the commercial tax collection.

Sen (2015) sculpts the impact of VAT on revenue in three essays. The first essay titled “The Revenue Efficiency of India’s Sub-National VAT” sets the objective to analyse changes in revenue efficiency from substitution of a consumption type VAT for a highly distortionary sales tax at the sub-national level in India. The model shows that replacing one type of indirect tax with another enhances long-run revenue efficiency only if there is a net decrease in the administrative, compliance and distortionary costs of taxation at the margin. A unique state-level dataset for the years 1990 to 2010 has been used to determine the changes in long-run revenue efficiency from the use of consumption type VAT. The first essay concludes that in the long run, a fall in the endogenous costs of taxation makes the increase in optimal revenue efficient for the government. The study shows an improvement in the efficiency of sales tax in less developed economy by the use of VAT at a sub-national level thereby proving that sub-national VAT can be an effective tax instrument for low- and middle-income economies.

The second essay titled “Did India’s Sub-National Vat Improve Economic Efficiency?” aims to analyse the impact of the VAT on the prices and consumption of multiple commodity groups in rural and urban areas. The time series data of household level consumption expenditure surveys collected by a federal government organization has been used. It was concluded that there are efficiency improvements due to the adoption of the sub-national VAT in India in certain long-term durable goods in both rural and the urban sectors. The improvements are attributed to the decrease in the level of tax cascading which reduces the real tax burden and the prices on these goods. This reduction in the real prices consequently leads to an increase in the real consumption of these goods.

The final essay “Tax Incidence: Do Institutes Matter? An Experimental Study” has the objective to bring out the possible effects of institutions on tax incidence. Stationary demand and supply functions are derived for an imaginary commodity. A balanced design where tax incidence theory predicts the economic burden of a unit tax on a homogeneous good will be equally shared between buyers and sellers, independently of the assignment of the liability to pay tax is used. Assignment of the liability to pay tax has a significant effect on the long run incidence of a tax in the two market institutions examined in this study. A change in the market institution has a greater impact on tax incidence than a change in the assignment of the liability to pay tax. The study also shows more tax shifting to consumers when the assignment of the liability to pay tax is on the seller in both market institutions.

Mukherjee (2016) through “GST in India: Chasing a Mirage or Reality?” seeks to address the details of the Goods and Services tax and its implications in India. He pointed out that a harmonised tax system like GST would restrict the fiscal freedom of the state governments. A harmonised tax rules and regulations were argued to be the need for a federal state like India than harmony in the tax rate. The incentives for invoice-based transactions and simpler tax administration adds to the success of GST in improving compliance and revenue mobilisation.

Rao and Kumar (2017) in “Envisioning Tax Policy for Accelerated Development in India” aim to highlight the reforms that are needed in the tax system to enhance the revenue productivity of the tax system to coincide with India’s vision of accelerating economic growth and development. The paper makes use of a cross country analysis of tax-GDP ratio from 98 countries to ascertain the extent of under taxation in the country. An increase in the tax-GDP ratio is considered necessary and in turn provides fiscal space for investments in infrastructure and human development. The reforms needed to raise the tax revenue productivity are also identified in the paper. One of the important reforms that are suggested is to replace all the indirect taxes with GST. It also recognises the fact that proposed tax system will have various shortcomings which will be cleared over time. Reforms to simplify the law broaden the tax base, professionalise the tax administration and to make it taxpayer friendly to improve efficiency and compliance are the other reforms suggested.

Mukherjee (2017) through “Changing Tax Capacity and Tax Effort in Indian States in the Era of High Economic Growth 2001-2014” measures the tax effort of the Indian states and brings out the factors that affect tax effort. The objective of the study is to estimate VAT efficiencies of the states for the period 2001-14 and understand the factors which influence VAT efficiency. An attempt has also been made to differentiate between factors that determine the tax base and factors that constrain the state from utilizing the available base. The study examines comprehensive revenue collection under Value Added Tax of general category states for the period 2001-02 to 2013-14. The level of per capita income as a measure of relative level of development of the states has been used to estimate the tax effort. The share of central grants-in-aid in total expenditure of the state and the state’s share in central taxes as percentage of total expenditure have also been used.

This study shows that tax capacity is function of scale and composition of economic activity of a state. States with a higher share of agriculture and services in GSDP is expected to be accompanied with a larger VAT base as compared to states having a higher share of mining and manufacturing activities. A percent of value addition from agriculture and services reaches the employees as their income and in turn facilitate consumption thereby expanding the tax base. Rise in per capita income improves the tax administration of the state in turn enhancing efficiency. Rising per capita income also reduces tax effort.

A review of the studies brings out the need to simplify and harmonise tax systems as a way to increase revenue mobilisation. Plugging of gaps in tax administration is also emphasised for raising revenue.

1.4.2 Kerala Development Experience and Fiscal Problems

The above studies on Indian public finance mainly centre on tax implementation and structural reforms. The study now focuses on the works addressing the development journey of the Kerala and its financial issues.

Kerala development experience shows the achievements of Kerala in the fields of social sector especially in education and health, which is world acclaimed in the name of Kerala Model of Development. From that onwards Kerala came to the forefronts of discussions and debate with the development paradigms of another world. The public sector has played a major role in Kerala. Hence, it is argued that the public expenditure started increasing to attain social development and resulted in fiscal crisis. Therefore, the achievements of the state in its social sector and the fiscal may be related. The following are some of the studies based on Kerala fiscal crisis, its factors, Centre-State relations, State finances, reforms, fiscal management, and Kerala model of development.

George (1990) studied the causes for Kerala fiscal crisis in 1987-88 and argued that revenue deficit is the main reason for the crisis. This deficit is due to high spending on non-plan expenditure such as salaries, pensions, social sector (education, health) and welfare schemes. Thus, crisis results in paucity of funds and then it led to affect the development of the States.

But Ramalingum and Kurup (1991) show that Kerala performs very poorly in revenue receipts especially in own tax revenue and own non-tax revenue collections when compared to other States during the sixth and seventh plan periods. Kerala's average annual growth rate was higher than the Southern States in 1974-75 to 1979-80; also, it was very lowest in 1980s. In 1982-83 period witnessed a steep decline in the ratio of own nontax revenue to total own revenue for Kerala. Therefore, revenue side reasons are also attached to explain the fiscal problems of the state.

Later, George (1993) again tried to find out whether there exists any structural relationship between the Kerala pattern of development and the State's fiscal crisis. It examines the revenue side and expenditure side of Kerala economy. Analysing the revenue side and expenditure side, he found out the reasons for Kerala's fiscal crisis. Accordingly, he argues that the origin of the fiscal crisis lies in its revenue account even though the revenue mobilization effort of the State has been better than that of other States. But Kerala's inappropriate strategy of revenue mobilization resulted in revenue deficit. The State is relying more on taxation, particularly commodity taxation, neglecting non-tax revenue for resources mobilization. Also, the tax administrative system in the State is not sound to collect tax and control evasion of taxes. On expenditure side, there is high spending on education, health and other social and community services. The State has larger non-plan expenditure because of high share of revenue, high spending of public expenditure on social and community services and non-development expenditure in the State. Lower share from central funds adds fuel to the fiscal crisis in the State. Thus, the study explains that the fiscal crisis in the State is mainly due to Kerala's pattern of development, especially due to non-plan expenditure and high spending on health education.

George (1994) focused on the trends in State finance of Kerala with all Indian States during 1974-75 to 1987-88 periods. The study covers the period from the last years of fifth five-year plan to first three years of seventh five years plan. The budgetary deficit in the State was found very poor in 1987-88, when it reached Rs.171 crores which represented 2.5% of the GSDP. The main reasons for the crisis as per this study are lower revenue mobilization in tax and non-tax revenue, lesser central assistances, higher level of expenditure and mounting revenue expenditure and increasing non-plan expenditure in the State. The study noted that the achievements of the State in meeting selected national objectives in the fields of education and health care had been used by the finance commissions to deny not only an upgradation, but also special problem grants. The study also states that lower mobilization effort of the State to meet the non-plan expenditure is a factor for fiscal crisis. Larger revenue components of expenditure side especially in social and community services, educations and health are creating fiscal crisis in the State.

Joseph (1999) showed continued neglect of growing revenue deficit by the alternative Governments in State of Kerala. This leads to the fiscal problems and hit the development of the State. The study pointed that the main reason for the increasing financial problems of the State is high spending on salaries, pensions, and interest charges. The alternative Governments in Kerala did not take any measures to reduce the growing revenue deficit. Thus, enormous growth of non-plan expenditure led to fiscal crisis that is uncontrolled increase of Government employees, ministers and Members of Legislative Assembly made wasteful dumping and lavish public work projects and inefficient management of public sector units.

Kurian and Abraham (1999) analysed the fiscal crisis in Kerala with reforms, in the periods 1970-71 to 1997-98. It examines that the crisis hit the achievements of Kerala model of development. Burgeoning revenue deficit, low realization of revenue potential, excessive growth of non-plan revenue expenditure, unsustainable debt burden, unsatisfactory performance of public sector enterprise and low-cost recovery of public services are the reasons for fiscal crisis in Kerala.

The study shows that the share of sales tax in the State's own tax revenue has increased from 62%in 1989-90 to 69% in 1997-987. Ensuring of good tax compliance, suitable administrative reforms for effective enforcement of sales tax are also indispensable.

George and Krishnakumar (2003) focused on the fiscal crisis in Kerala in the nineties. Both the revenue and expenditure influenced the fiscal crisis in Kerala. The average growth of total revenue receipts decreased sharply in the second half of the nineties. As also the growth rates of both tax and non-tax revenue declined sharply. But this declines in the growth of own nontax revenue was steeper than that of own tax revenue. The growth in central revenue transfer was also low. Lower interest receipts, dividends and profits, return on capital outlay, low-cost recovery from public services are the reasons for declining revenue. And the larger allocations for social services like education and health contributed to the crisis. That is Kerala model of development has contributed to the fiscal crisis of the State. The tax effort of the State was very poor. Except the sales tax and tax on vehicles, the performance of all other taxes was poor in 1999-00 than in 1990-91. As in the expenditure side, the revenue expenditure shows a lower growth rate and the capital expenditure too show similar trend. At the same time non-development expenditure shows high growth rate. Study states that due to revenue mobilization efforts of the Sate and highest spending for non-plan expenditure results fiscal crisis.

In addition to the problems related to own revenue, George and Krishnakumar (2003) argue the deficiencies of fiscal transfer mechanisms as responsible for the fiscal crisis in Kerala. Kerala has been receiving lower than all sates average quantum of Central Funds in States expenditure is reduced in first and second half of the nineties. The trend is more prominent from the second half of the nineties. The average growth rate in total central transfers was lower for Kerala (8.3%) than for other States (12.5%) during the Second half of nineties.

Joseph (2003) analysed the performance of South Indian States such as Kerala, Tamil Nadu, Andhra Pradesh and Karnataka. The State finances of each State too explained. He points that the finances of the State Governments as a whole deteriorated since mid-1990s.The fiscal position of the State both the Fiscal Deficit and Revenue Deficit are very poor. Not only that Kerala's debt ratio going up to 37% by the end of 2003-04, but there is also lesser capital expenditure which reflects the acute fiscal crisis in the State.

Rakhe (2003) attempts to analyse the tax in the context of the fiscal crisis in the State and also highlights the relationships between these two. This paper states that the tax leakage by causing a revenue drain may adversely affect the primary account position and indirectly influence the fiscal sustainability of the State's economy. To study the tax leakage, Sales tax was taken. And she used Partial Adjustment model to estimate the tax leakage. The study estimated that 35 percent of the States sales tax potential is not tapped with the States. This tax leakage will result in fiscal crisis in the State. And the tax leakage considered as a mirror image of inefficiency of tax administration in the State. This study also state that poor mobilization of tax will lead to the fiscal crisis and hit the development of the state.

Abraham (2004) overviewed the structure of public finances in Kerala between the periods 1983 to 2003. And he refers the periods 1997 to 2002 as the Fiscal Crisis Year. He also portrays that the crisis arises due to the expenditure and revenue sides imbalances. Expenditure side problems are due to pay revisions, salaries, pensions, allocations to Local Self Governments and interest payments and servicing of debt. The revenue side problem mainly comes from reduction in sales tax collection between the periods 1997 to 1999. Sales tax contributed to 31.73 percent of the imbalance in 1997 to 2002. In the beginning of the crisis, poor sales tax collections were the major reasons. Sales tax collections growth rate in 1997-2002 was 9.97 percent. Central transfer reduction worsened the situation. Study states that the real causes of the fiscal crisis are because of the poor financial management in the State.

Jeromi's (2005) study was intended to check the impact of economic reforms in Kerala. As per the study the average annual growth rate of both the own tax and non-tax revenue receipts declined from pre-reform period to reform period. The revenue expenditure as a percentage of NSDP (Net State Domestic Product) shows increasing trend. The revenue deficit and fiscal deficit were 2.8 and 5.2 as a percentage of NSDP in pre-reform period and reform period respectively. Thus, after the reform both of revenue deficit and fiscal deficit started declining.

Oommen (2008) examines the changes in Kerala model of development after the economic reforms. The pillars of Kerala model are education, health and social welfare schemes. After the reforms the expenditure as a proportion of SDP declined over the years in education and health. In 1982-83 Government total expenditure was 29.28 percent and it is declined to 17.97 percent in 2005-06. Also, in health expenditure and family welfare, public expenditure was 11.67 percent in 1989-90 and reduced to 6.36 percent in 2005-06. Thus, after the reforms State spending on these sectors reduced. This is because of the commercialization of these sectors under the implementation of neo-liberal policies. The study also states that the own tax revenue collection is declining in the State. In 1994-95, own tax revenue of the State as a percentage of SDP was 9.6 percent, but it declined to 9 percent in 2004-05. That the tax collection machinery was not performing very well.

George (2011) studied the fiscal deterioration of the State and weakening of the service sector. The nature of fiscal crisis in Kerala is partially due to the Kerala model of developments with its budgetary allocations. Kerala allocates more on health, education and other sectors of social sector. More allocation to these, resulted crisis in the State. The more spending on education and health care created more deficits to the State. The problem of deficit in Kerala is more in the revenue account. The revenue deficit alone amounted to 2.2 percent of SDP as against 0.4 percent for all the States. Kerala is at a weak revenue position because of that the poor mobilization of revenue by the Government.

George and Krishnakumar (2012) found that there had been some improvements in the financial position of Kerala in the early stages of the study periods, but it continues to remain vulnerable. The State performance was very bad in comparison with the average of all States and many individual States. The study also states that Kerala had created surplus in its capital account during all the 23 years which means that it had borrowed more than what it had spent and for invested and/or loaned under capital account. Kerala's position in revenue deficit continued to be high. And the capital outlay to GSDP ratio was very low in Kerala but also in other States. The utilizations of plan outlay were more for Kerala than for all other States only during seven out of 18 years. Sen (2012) pointed out that Kerala heavily invests in social infrastructure rather than physical infrastructure and industrial growth. So, the returns to the State in the form of tax were meagre but the lasting expenditure liabilities were large. The share of capital expenditure to total expenditure has very small share. The study also pointed that the deterioration in fiscal deficit in 2002-03 (the year with a largest deficit, 5.31 percent) can be seen despite an increase in tax and non-tax revenue. The factors led to low level of non-tax revenue are small interest receipts, negligible amount of dividends received and low level of user charges. And the attempts have been made in the past to increase the non-tax revenue and correct the factors, but none of these measures had much of revenue impact. The study also states that revenue potential from physical infrastructure services is limited in Kerala until it makes substantial investments.

Sebastian, Kumary and Nair (2014) study show that the State finances of Kerala is continues to be precarious. The high level of expenditure on social sector and limited revenue mobilization powers led Kerala into the fiscal consolidation. The high level of spending of expenditure on social sector was not new. Kerala spends more on social sector over the years. Thus, the pattern of spending more on social sector results high achievements in social sector. At the same time the tax effort is not tap with the tax potential of the State. And also states that there is a sharp reduction in the ratio of revenue deficit to total revenue receipts partly due to the comparatively better performance of the State in revenue mobilization during the eleventh plan periods. And that the Kerala has lagged other south Indian States on fiscal effort. The State heavily depends on commodity taxes and lottery for revenue. There is not much effort involved in realizing the revenue.

Issac and Mohan (2016) examine the fiscal status of Kerala over 15 years by looking at the trends in receipts and expenditure. Revenue deficit paves the path for fiscal consolidation in the States; this was due to the lower mobilization of tax revenue and its effect on the development of the State. They also examine the gap between tax potential and actual tax collections. There show that the actual Sales Tax/VAT collection is below 29% of its potential collection. They estimate the own tax potential of Kerala based on NSSO's quinquennial round is an indicator of the gap between potential and the actual collection of Sales Tax/VAT.

Shyjan (2016) studied the fiscal crisis of Kerala in 2016. The study examines if the fiscal crisis in Kerala is because of revenue led or expenditure led. In expenditure, there are not many increases from 2006-11 to 2011-15 periods. Both the revenue expenditure and capital expenditure not much increased. The fiscal crisis in Kerala is mainly due to the lower mobilization of the State. In the last past years, there are lower revenue mobilizations, which is because of mainly the poor fiscal management of the State and poor tax administration.

White Paper (2016) clearly pointing that Kerala is facing fiscal crisis in the State. This report on State finances, examines the fiscal crisis and the reasons for the same. The report states that the cash balances in the treasury have negative balances. And the immediate and short-term liability of the Govt. reaches above Rs.10000cr. The fiscal goals of the State are far away from the reality. Both the Revenue Deficit and Fiscal Deficit are higher than that stipulated by the Fiscal Responsibility and Budgetary Management Act. Not only that the capital expenditure of the State was very poor in the last Five Years than previous periods. The crisis had two dimensions. In the case of expenditure side, raising revenue expenditure and also the committed expenditure are the primary causes and also the Government has only less control on it. There are revenue side problems too. The underperformance of the tax collections machinery especially in 2011-16 period led to the State. That this report focuses on the current fiscal status of Kerala.

The studies on Kerala's fiscal crisis validate the poor expenditure management and revenue mobilisation to be the reasons for fiscal crunch. The study now explores a method of revenue mobilisation, verily tax compliance, and the factors influencing compliance.

1.4.3 A Synoptic View of Tax Compliance Studies

Studies on tax compliance is presented to understand the factors that affect tax compliance behaviour.

1.4.3.1 International Studies

Slemrod and Sorum (1984) studies "The Compliance Cost of the U.S Individual Income Tax System" using data from a survey conducted of Minnesota taxpayers. The survey was conducted to estimate the magnitude and demographic patterns of the compliance cost of filing income tax returns. The paper aims to estimate the costs directly borne by the taxpayers on the components of costs such as time and financial expenditures. The study ignores the discretionary and the non-discretionary costs incurred while filing the returns. The paper reasons that if the taxpayer is willing to pay a high amount of tax, then the resources required for the filing procedure is minimum. The wage rate has been used as the basis for estimating the time since the amount of time required for filing the returns is considered as less of work time. An equation of wage rate is estimate as a function of variables like employment status, occupation, age, level of education completed, sex and marital status. The computed value of wage rate is converted as before tax and after-tax wage rates using the marginal tax rate on labour income. The study found that the relation between the total resource cost of filing and income is U shaped. The study concludes that the compliance cost is about five to seven percent of the combined total revenue raised by the federal and the state tax systems.

Pitt and Slemrod (1988) in the paper titled “The Compliance Cost of Itemizing Deductions: Evidence from Individual tax Returns” aims to estimate the cost of recording deductions. A linear function of tax savings and cost of compliance is developed. The study conforms to the data taken from the 1982 Treasury Tax file. The model was estimated by the maximum likelihood method. The results reject the assumption that the compliance costs are zero and prove that compliance costs vary with the characteristics of the taxpayers. Tax savings also vary according to the taxpayer. According to the study, increasing the taxpayers’ standard deduction by $1000 would save $180 million in their privately borne costs.

Tauchen, Witte and Beron (1989) analyse the tax compliance behaviour of the U.S taxpayers through “Tax Compliance: An Investigation Using Individual TCMP Data”. A model of taxpayer compliance using the data of 1979 of individual returns, results of audits of the returns and Internal Revenue Service administrative records is developed. The model assumes that the taxpayer chooses amount of income to be reported and the reductions to be made to maximise the expected utility which, in turn, is decided by the individual’s consumption expenditure. The model also includes the tax avoidance dimension by including the individual’s choice of the level of the legally accepted deductions. The study concludes that audits have ensured more compliance. It also increases the revenue through the penalties and the additional taxes from the audits.

Kumler, Verhoogen and Frias (2013) study the effect of enlisting the employers in payroll as a measure toward tax compliance in the paper titled “Enlisting Employers in Improving Payroll-Tax Compliance: Evidence from Mexico”. The study aims to compare two sources of wage information in Mexico including the firms’ report of individual wages and also the response of individual to a household survey of labour force. This was carried out to understand the extent of under reporting of wages by the firms in Mexico and how it changes according to changes in the social security system. A difference in differences method is used on the basis of the 1997 pension reforms of Mexico. The result shows extensive under reporting of wages among the younger age group workers. The comparison showed differences in the two sources which can be attributed to the existence of tax evasion. The study concludes that providing the employees with incentives to report their wages more accurately would improve their compliance.

Hallsworth, et.al (2014) looks into tax compliance by assessing the actual payment of taxes rather than just the declaration in "The Behaviouralist as Tax Collector: Using Natural Field Experiments to Enhance Tax Compliance". The paper constructs a theoretical model of paying taxes. A behavioural model on why the agent delays in completion of the tax payment is evolved. The reasons for this were found to be limited liquidity of income and also procrastination. Field experiments conducted to test the impact of tax payment reminders through public good messages showed that these played a considerable role in enhancing tax compliance. The field experiments also showed increased tax collection which suggests the importance of such methods in improving compliance.

Slemrod, et.al (2015) studies "Does Credit Card Information Reporting Improve Small-Business Tax Compliance". The study aims to examine the response of small business functioning as sole proprietors to Form 1099-K, the information report released in 2011 providing the Internal Revenue Service reports regarding payment card sales. This was made as an attempt to limit the small-business tax evasion in the United States. The testing of the data is done by the aggregate time series analysis. The study concludes that the reporting of credit card information increased the chance of the taxpayers filing the return by declaring their business income.

IMF (2015) in the report "Current Challenges in Revenue Mobilization Improving Tax Compliance" analysed the challenges in revenue mobilisation and in particular tax compliance of the developing countries. The purpose of the report was to identify the ways of improving tax compliance through revenue mobilisation among developing countries. It was observed that tax compliance worsened with the crisis of 2008-09. Tax compliance was observed to improve with sustained effort and consistent strategy. A balance between enforcement and persuasion for voluntary compliance is to be arrived at. Enhancement of taxpayer services is recommended by strengthening the revenue administration. An effective enforcement is assured only with strong political support. Along with effective administration they also hold that the approach towards this must be realistic, depending upon the nature of the particular economy.

Chirico, et.al (2017) examines "Procrastination and Property Tax Compliance: Evidence from a Field Experiment" to study tax compliance. The study aims at explaining procrastination as a cause for the difficulties in the collection of property tax. The taxpayers who delay the payment are modelled as procrastinators. Explanation of the procrastination behaviour is done by identifying the effectiveness of 'nudges' to underpin the motivations of tax compliance. The paper identifies seven such 'nudges' comprising of a reminder that the payment is late, next a reminder and a threat of a penalty if the payment is not received with a specified date. The next nudges include a reminder along with an appeal to the taxpayers' morale. A model of tax delinquency is developed as the cause of procrastination. The test of the model concludes that the prominence of the tax obligation matters. The continuous prodding along with the penalties improves tax compliance.

Alstadsaeter, et.al (2017) aims to estimate the size and distribution of tax evasion in rich countries in the paper "Tax Evasion and Inequality". The paper uses micro-data obtained from stratified random audits. These data come from the leaks from offshore financial institutions, Swiss bank and the Panama Papers. The supply model of tax evasion is used for the estimation. The model shows how the banks will serve the wealthy customers by internalising the cost. The tax evasion shows a sharp rise when wealth increases. Tax evasion also increases inequality of income. The paper concludes that even after reducing tax evasion tax evaders do not legally avoid taxes more. Tax revenue collection can be ensured by tackling tax evasion.

Benzarti (2017) looks into the how tax compliance is affected by the tax filing procedure in the paper titled “How Taxing is Tax Filing? Using Revealed Preferences to Estimate Compliance Costs”. The objective of the paper is to estimate the cost of filing tax returns. The study is done using quasi-experimental methods. The data from US tax returns is used. In order to calculate the cost, the paper reconstructs the counterfactual distribution of itemizers. The taxpayers relinquish tax savings in order to compliance costs. The cost increases with income and shows a higher opportunity cost of time for the richer households.

Mattozi and Snowberg (2018) study the theory of taxation in the paper titled “The Right Type of Legislator: A Theory of Taxation and Representation”. The study aims to develop a theory of taxation and distribution of government spending in a candidate model of legislatures. The paper uses models of distributive politics where legislators are considered independent factors directly affecting public funds. The study introduces the abilities and personal preferences of the legislators into the model. The results show that rich voters prefer rich legislators. It also shows that spending does not increase when the number of legislators increases.

Cullen, Turner and Washington (2018) examine the tax evasion in “Political Alignment, Attitudes toward Government and Tax Evasion”. The paper aims to examine the effect of attitude towards the government on tax evasion. Tax evasion is considered as a modern form of tax resistance. To quantify tax evasion, proxies for tax evasion such as audit rates are used. To measure the attitude towards government proxy chosen is political alignment. The paper uses the tax gap approach to understand evasion. It was found that taxable income increase with the region goes into alignment. It also shows that a positive attitude towards the government lowers tax evasion.

1.4.3.2 Indigenous Works on Tax Compliance

According to Gupta (2004) in “Tax Compliance Costs and Non-Filing Behaviour” those people whose taxes are withheld evade taxes more. A comparison of the filing and non-filing costs has been undertaken. A model for estimating the impact of filing requirements on the misallocation of wealth has been developed. If a non-filer files his income, the chances of him being detected is more than before. The variation in the income detection probabilities influences this decision. Individuals being risk neutral income maximisers may file tax returns but report zero taxable income. Reducing tax compliance cost on filing and the non-filer penalties reduce non-compliance behaviour. Suggestions for reducing the filer compliance costs and increasing the direct and indirect penalties are made.

Gupta (2004) in “The Compliance Cost of the Personal Income Tax in India, 2000-01: Preliminary Estimates” estimates the compliance cost of personal income tax in India. The work makes use of case studies, secondary data and also primary survey data. Legal compliance costs were derived by adding time and money compliance costs. The complexity of the tax system adversely affects the compliance costs and the compliance behaviour. The taxpayers and tax withholders incur compliance costs. The compliance costs are high irrespective of whether salaried or non-salaried but higher for the non-salaried since the burden of bribe payment is high for them. The study also observes tax advisors are used to deal with the uncertainties and procedures of tax payment rather than to reduce tax burden.

Sebastin and Anita (2010) through “Tax Administrative and Compliance Environment of Local Bodies: Insights from Process Mapping in Thiruvananthapuram Corporation” set the objectives to identify the infrastructural issues of tax administration, the efficiency of the tax administrators in doing their business and whether the system promotes voluntary tax compliance and a positive attitude. The process of mapping was done through a series of interactions with officials, collection of various forms, survey of the documentation and record keeping arrangements and interaction with taxpayers. The findings of the study reflect the poor infrastructural facilities. The tax administrators have not been selected specifically for administering taxes and no special training has been provided to them. Online payment of tax had not been started even though computers were being used. The system is not conducive for voluntary tax compliance. The high compliance cost can cause negative attitudes. It was also found that the tax administration was not taxpayer friendly. All these contribute to issue of non-compliance.

Rao and Tandon (2016) in “Revisiting the Tax Compliance Problem using Prospect Theory” gives a model for tax compliance based on prospect theory where an individual decides whether to file, and declare income, or to not file based on a set of policy parameters and preferences. They intend to analyse the issue of tax compliance by prospect theory. The issue of tax compliance has been addressed using the prospect theory and also by including the stigma arising from the detection of non-compliance. All actions of the individual are compared with reference income of an individual who has duly paid all his tax liabilities. They also raise the question of the income the individuals would choose to file returns and solves the same with a model based the aforesaid prospect theory. Models are put forward to show the impact of change in the tax rates and penalty on the inclination of the individual to file income. All individuals do not find it optimal to pay the taxes. People at low incomes do not opt to file tax returns. An individual’s choice to file return is based on rate of tax, penalty rate and audit probability and also on their preference for risk.

Thus, there is a consensus among the studies reviewed so far that: i) the state has been experiencing a fiscal problem for a long period of time; ii) of the two reasons of expenditure side and revenue side, the latter is observed as the main cause of fiscal crunch; and iii) the successive governments fail to realise the potential revenue collection. Tax compliance studies centre on deterrence factors like punishments and penalties along with complexities in tax structure strongly affecting tax payment. An important question that emerges is whether the revenue collection mechanism of the state is only blamed or whether there are other unexplored factors. The present study tries to look at another dimension of the revenue side problem of the state, i.e., the attitude and behaviour towards tax and compliance by the traders and consumers. This dimension has not been attempted so far.

1.5 Hypotheses

1. Committed expenditures and limited scope for revenue mobilization directly influence fiscal crisis.
2. Fiscal crisis is more associated with the pattern of revenue and expenditure rather than the volume of revenue and expenditure
3. Attitude of the government, tax governance and tax compliance are associated.

1.6 Data and Methodology

The objectives of the study are satisfied using secondary data and primary data. Secondary data used to attain the objectives pertaining to public expenditure and public revenue has been collected from the various sources like Economic Review, reports of the Finance Commissions at the Centre and the State, reports of the Kerala Public Expenditure Review Committees, Budget Documents of Government of Kerala, Comptroller and Auditor General Reports of Kerala and publications of the Reserve Bank of India; State Finances: A Study of Budgets and the Handbook on Statistics of Indian Economy for various years. Data was collected for the period from 1990-91 to 2020-21.

The primary data was used to achieve the last objective of the study. Primary data was collected through direct interviews with Traders and Consumers. The traders were selected to cover different types of operations.

The interviews were conducted based on well-structured questionnaires. The sample consisted of 300 consumers and 100 businessmen as respondents from three districts randomly. The districts were chosen based on their prominence in Kerala's trade and commerce, namely, Ernakulam, Thiruvananthapuram and Calicut. The variables selected to meet this objective are; Billing mechanism, Attitude towards paying taxes, Morality, Tax evasion, Tax Administration and Tax awareness.

The first and second objectives were achieved completely on the basis of secondary data. The objectives of examining state expenditure and state revenue were satisfied by drawing out their trends and patterns over the period. Based on the analysis of revenue and expenditure, the existence of fiscal crisis was evaluated and proved.

To assess the fiscal performance of the state a fiscal performance index was created. This study uses ten indicators to calculate five major sub-indices from ten minor sub-indices reflecting different aspects of fiscal performance. The indices used to form the Fiscal Performance Index are Deficit Index, Revenue Efficiency Index, Expenditure Quality Index, Debt Index and Debt Sustainability Index. Relative Distance approach is used to build the sub-indices from the evaluated fiscal factors. The level of each of the indicators is standardised in this technique to a number between 0 and 100. To evaluate the performance of the nations, the Human Development Index was calculated using the relative distance method. It is a technique based on several indicators. This method was used using a numerous indicator-based approach because the goal was to measure the state's budgetary performance. This approach is distinctive in that it may generate an index using both advantageous and disadvantageous characteristics. The Improvement Index is the name given to the index that is built for positive signs. The Deprivation Index is the index created by using unfavourable factors. Both indices will have values between 0 and 100.

$$\text{Deprivation Index (D)} = (\text{Max}(X) - X) / (\text{Max}(X) - \text{Min}(X)) \times 100$$

$$\text{Improvement Index (I)} = (Y - \text{Min}(Y)) / (\text{Max}(Y) - \text{Min}(Y)) \times 100$$

Where, X is the actual value of the parameter. Max (X) and Min (X) are the maximum and minimum value of the parameter. The range of the indices are from 0 to 100, with 0 depicting the worst performance and 100 indicating the best performance.

In order to determine the factors of fiscal crisis, the gross fiscal deficit ratio is regressed against total receipts and total expenditures, to examine its effect on gross fiscal deficit. The factors that influence the budget deficit have been examined with the aid of a multiple regression model. Total Revenues and Total

Expenditures are considered the independent variables, and Fiscal Deficit is considered the dependent variable.

The third objective, as mentioned earlier, was satisfied using primary data pertaining to the factors of tax compliance. The factors were categorized into Tax Morale, Tax Knowledge, Subjective Norms, attitude towards the behavior, Governance, Tax Administration, Tax Structure, Economic Deterrence and Compliance factors. The factors were analysed through direct reply from consumers and traders in a Likert Scale model. Tax Compliance was then calculated for consumers and traders using the formulae:

1. $\frac{0 \times F1+1\times F2+2\times F3+3\times F4}{3\times \text{Grand Total}}$

NOTE: Code of Scaling: 0 – No Influence at all, 1 – Little Influence, 2 – Somewhat an Influence, 3 – Strong Influence

2. $\frac{0 \times F1+1\times F2+2\times F3+3\times F4+4\times F5}{4\times \text{Grand Total}}$

NOTE: Code of Scaling: 0 – Neither Agree nor Disagree, 1 – Strongly Disagree, 2 – Disagree, 3 – Agree, 4 – Strongly Agree

Based on these, a tax compliance index was constructed. The index was constructed using the Fergusson index method.

1.7 Chapter Scheme

The study is systematically presented in seven chapters. Chapter one introduces the topic of the study, statement of the problem, objectives, hypothesis, data sources and methodology. The chapter also presents a summary of past studies undertaken on the country's public finance, Kerala's fiscal crisis and work on tax compliance nationally and internationally. Chapter two presents the theoretical background governing the study. Chapter three examines structure and composition of expenditure in Kerala. Chapter four examines the trend of revenue and factors in revenue mobilisation of the State. Chapter five deals presents and analysis of Kerala's fiscal crisis and its measurement. Chapter six is designed to present the tax compliance behaviour of traders and consumers based on the primary data collected. Chapter seven presents a summary of findings and conclusions.

CHAPTER II

THEORETICAL FRAMEWORK

The theoretical foundations of governmental spending, revenue, and tax compliance are presented in this chapter. The section examines public expenditure theories, paying particular attention to the Wagnerian method, Peacock Wiseman's hypothesis, and factors that affect public spending. The theories of public revenue are laid down centring the discussion on the traditional approaches of tax burden and ability to pay. The angle of revenue mobilisation is also explored on the lines of the Laffer curve. Discussion of the tax compliance theories opens up the various factors influencing compliance behaviour.

2.1 Doctrines of Public Expenditure

Public spending demonstrates the financial capacity of a public body. The principles guiding the acquisition and utilisation of such resources by the public entity that owns them would be studied by the science of expenditure. Public expenditure mirrors the choices of the government regarding public policies. Public expenditure also represents the cost of implementing the policies of the government, which include the provision of goods and services. Public expenditure in the economy has increased all through the years. While the private sector aims at profit generation, the public sector works for the public welfare. With the government entrusted with the duty of state welfare and committed towards economic growth and justice, it cannot close its eyes to the problems of its people. Due to this function, the government is obliged to perform its responsibilities which induce public expenditure.

The present study attempts to examine the approaches to public expenditure explaining the reasons for the increase in public spending in an economy. From among the many theories of expenditure, the study traces the path of government expenditure through the following theories. The first one is known as Wagner's Law followed by the principle of Displacement Effect, introduced by Alan T. Peacock and Jack Wiseman.

Adolph Wagner, a German economist of the late 19th century, through his Law of Increasing State Activities, emphasised the growing importance of the role of government and expenditure as an essential feature of a progressing state. The theory explains the existence of a direct relationship between economic development and growth and the role of the public sector, reflected through the size of public expenditure. According to Wagner, there is an inherent tendency for the activities of different levels of a government, e.g., Central and State governments, to increase both intensively and extensively. Changes the public expenditure imply changes in the economic structure and development. Wagner advocates public expenditure for meeting the needs of the population.

According to Wagner, "as the economy develops over time, the activities and functions of the government increase". Wagner presents the law as "Comprehensive comparisons of different countries and different times show that among progressive people, with which we alone are concerned an increase regularly takes place in the activity of both the central and the local governments. This increase is both extensive and intensive. The central and local governments constantly undertake new functions, while they perform both old and new functions more efficiently and completely."

However, the theory does not show the inner compulsions wherein the government has to expand its activities and thereby the public expenditure over time. It applies only to modern progressive governments which are interested in expanding the public sector of the economy for its overall benefits in turn expanding the size of public expenditure. This general tendency of expanding state activities has shown a definite long-term trend even though it may face financial difficulties in its path. "But in long run, the desire for the development of a progressive people will always overcome these financial difficulties "(Musgrave, R.A. and Peacock, A.T., 1958).

With the prevalence of the inherent tendency of the government to increase its activities, they take up new functions. This implies the expansion of the public sector in economic activities and also the performance of the earlier functions more effectively and efficiently. According to Wagner, as per capita income due to industrialisation, there is growth in the public sector. The growth of the public sector is attributed to three factors: (i) Increasing urbanization in most countries (ii) Growing population leads to an increase in cultural and welfare expenditures (iii) rise in public investment activity. Therefore, Wagner's Law applies only to those states where income is rising as a result of industrialization and excludes the non-progressive states.

Wagner's model had the drawback that it did not have a proper theory of public choice. Wagner did away with the problems of public choice by assuming an organic theory of the state'. According to Wagner, the state behaved as an independent individual making decisions irrespective of the society. Wagner's law, irrespective of its drawbacks, plays an important role in explaining the behaviour of public expenditure.

According to Wagner's Law, there exists a functional relation between the growth of an economy and government activities as a result of which the government sector grows faster. According to the Law, the change in public expenditure is greater than a change in GNP or national income. Wagner's Law explains the factors of determination for the rise in public expenditure as the growth of real per capita income and increased public demand for new public services due to the growth of real per capita income. There have been many attempts to stress the operation of the supply side with limits to taxation as financing the public expenditure is the major determinant of public expenditure.

The displacement effect of the Peacock-Wiseman hypothesis gained prominence in this regard. Peacock and Wiseman conducted a pragmatic study of the growth of public expenditure in the United Kingdom from the period of 1890 to 1955. The analysis was based on the political theory of public expenditure determination, which explains that the government spends more money whereas the people are reluctant to pay more taxes and that government should cater to their requirements more.

Peacock and Wiseman make the following assumptions about the state. Decisions of public expenditure are political and can be influenced by the factors that can put pressure to bear upon the government (ii) political choices about the use of resources differ from choices made through the market system (iii) people can have ideas about required public expenditure which can be different from their ideas about the burden of taxation. Peacock and Wiseman perceive the voter as an individual who enjoys the benefits of public goods and sources but is reluctant in paying taxes. Therefore, the government consider the reaction of the people to taxation while taking decisions regarding public expenditure. It is assumed that government behaviour is controlled by taxes to an extent. As the economy grows tax revenue also increases thereby enabling public expenditure to grow. Hence public expenditure displays a gradual movement upwards, even when there is a difference in the level of public expenditure and taxation according to the citizens. There are times when public expenditure deviates from this trend. This is mostly due to war, famine or in the event of other large disasters which calls upon a huge amount of funds. As a result, public expenditure shows a rapid rise. It is in these situations that the taxes are raised. However, this increase in tax rates is considered acceptable by the people and may not reflect in the ballot box. It is this effect that Peacock and Wiseman termed the displacement effect.

The displacement effect is explained as the phenomenon where public expenditure is 'displaced' upwards and consequently displaces private expenditure, in the period of the mishap. This causes the trend line the public expenditure to shift upwards. However, the public expenditure does not come back to its initial position once the crisis period is over. Even though the tax levels are increased to fund the crisis, say a war, the increased revenue would not be sufficient fully finance the crisis. In such situations, the countries undertake borrowings which amount to an increase in debts for the country. With the end of the crisis, the country now has to repay the debts.

The operation of the inspection effect, the increased awareness of the people about the problems of the society during the time of the crisis, causes the government to increase the range of services to improve the social conditions. The inspection effect is the inadequacy of revenue when compared to the required public expenditure. With the raised tax rates remaining the same the government to finance these along with meeting the debt charges. The theory also explains the concentration effect which refers to the tendency of the central government to grow faster than the state the local governments. This effect occurs because the central governments have to undertake many measures to continue the higher economic activity. Since with each major disturbance the central government assumes a greater share in the economic activity, it results in concentration.

The Peacock Wiseman hypothesis hence explains that public expenditure does not increase in a smooth and continuous manner, but a step-like fashion. These jumps and jerks are explained by the displacement effect, inspection effect and concentration effect. However, increasing public expenditure during times of crisis cannot always be met by raising taxes. Increasing taxes in situations like depression would be difficult for the government. Such expansion of expenditure, without a corresponding increase in taxation, forces the government to resort to deficit financing. This spell increased the debt burden for the government.

Wagner's hypothesis finds relevance in the study for the reason that it explains that an increase in public expenditure goes along with the economic development and growth of the state. With development, expenditure on welfare services like education and health becomes consequential. In a state like Kerala, perceived as a welfare-oriented state, such services and, hence, similar expenditures cannot be compromised. Similarly, the operation of the inspection effect can be noticed in the economy, the new schemes and services are introduced by the government for the welfare of the people. The governments, with the fear of losing public support, make all efforts to cater to the needs of the people and gather political support. These efforts are evidence of the increasing public expenditure of the state. The state of public expenditure can also be traced to the working of the displacement effect.

A study of public expenditure, however, would be complete only when its structure and its composition are scrutinised. Such an analysis can open up those parts which are incurring wasteful and superfluous expenditures.

Therefore, the public expenditure of a state increases with economic growth. Limiting expenditure would mean a decrease in the welfare services of the government. And for this reason, public revenue and taxation, in particular, gain relevance. The fact that public expenditure cannot be curtailed forces the government to concentrate on its revenue side. The increasing public expenditure compels the government to increase its revenue as well.

2.2 Approaches to Public Revenue

Taxes represent the principal source of revenue for the governments. Taxation is considered central to the economic, social and political development of the economy. An efficient tax system is assumed to perform three important functions in national development such as revenue generation, reduce inequality and also promote good governance, revenue generation being the most direct role of taxation. Revenue from the tax is used to address the long-term financing of public infrastructural services and also the immediate problems of human development. The tax also plays a key role in building up institutions and democracy by making the state accountable to its taxpayers. Taxes are the prime instruments which governments use to perform their functions. Taxes are used to induce individuals to change the pattern of their consumption and activities. Changes in taxes tend to change private expenditure by changing private disposable incomes.

The structure of the system of taxation in an economy has consequences for prosperity and economic growth and also has a major impact on income distribution. Inappropriate taxation will distort the market and can cause economic inefficiency and social injustice. With taxation being so vital to the government's functioning, whether that activity improves the general welfare will depend upon how good the tax system is. Various maxims have been proposed that puts forward the standards to which a good tax system should conform. The notable maxims or principles stated are the benefit principle and the ability to pay principle. These two approaches have been traditionally used by economists to evaluate the allocation of the tax burden (Slemrod, 1994, 2006; Musgrave, 1994). Under the benefit principle, taxes are the contribution paid for the receipt of services provided by the state. Under the benefits principle of taxation, taxes are considered as the prices the citizens pay for the goods and services they buy through their government and are assessed on each citizen according to the benefits he directly and indirectly receives. Taxation based on the benefit principle has significant appeal when the goal of public policy is not to redistribute income.

The ability-to-pay principle posits that the tax burden should be assigned not based on who benefits from government provisions, but rather on who has the ability to pay. The ability to pay principle of taxation states that individuals should be taxed according to their capacity of paying taxes. With taxes being paid in money, income is considered the measure of the ability to pay taxes. The larger a taxpayer's income the greater his capacity to pay taxes and two persons with equal incomes have equal ability to pay taxes.

Mirrlees's (1971) paper on optimal taxation put the decision in a utilitarian framework, ie, the tax burden should be assigned to maximize social welfare or efficiency. Distributive justice based on entitlement was thus replaced by the maximization of utilitarian welfare. The optimal system of taxation seeks to balance two objective functions: to raise tax revenue to achieve economic growth and to provide welfare (Vickrey, 1947, 1992). The modern approach to evaluating tax progressivity focuses on the trade-off between the potential social benefits of a more equal distribution of income and the economic costs caused by the disincentive effects of the high marginal tax rate required by a redistributive tax system.

One of the major direct taxes in India is income tax. The income tax follows the principle of progressive taxation. The principle of progressive taxation explains that the tax rates have to be increased for higher taxable income. Indirect taxes, those taxes where the incidence and burden of the tax fall on different people, adhere to the rule of regressive taxes. Taxes are regressive when they impose a more severe burden on the poor than on the rich. Generally, a regressive tax is a tax that is levied uniformly to all populations. Therefore, the low-income population carries a bigger burden than those with high income because the tax amount takes a greater percentage of their income, although the tax amount is the same. Sales taxes are imposed on major goods available to consumers. Since sales taxes are applied uniformly and affect all demographic groups within a population due to their necessity, they are considered regressive. They are regressive because they take a bigger chunk from low-income families. A regressive tax, such as sales tax which is imposed on all items; essentials and luxury items, may make it more difficult for consumers to afford their purchase, especially for those at the lower end of the economic scale who need every penny just to get by. A significant shortcoming of the regressive taxes is that the much-needed tax revenue would decrease if consumption decreased.

Revenue mobilisation through the imposition of taxes also depends on the elasticity of the product on which the tax is imposed. The elasticity of demand plays a role in deciding the revenue that can be raised through taxes on goods and services. Tax on a good with less elastic demand will bring in more revenue since the consumers will not be willing to substitute or do away with that good. When the demand is inelastic, consumers are not very responsive to price changes, and the quantity demanded remains relatively constant when the tax is introduced. In the case of smoking, the demand is inelastic because consumers are addicted to the product. The seller can then pass the tax burden along to consumers in the form of higher prices. However, imposing a tax on highly elastic commodities will lower the revenue mobilised.

When a tax is introduced in a market with an inelastic supply, sellers have no choice but to accept lower prices for their business. Taxes do not greatly affect the market quantity. The tax burden in this case is on the sellers. If the supply were elastic and sellers had the possibility of reorganizing their businesses to avoid supplying the taxed good, the tax burden on the sellers would be much smaller, and the tax would result in a much lower quantity sold instead of lower prices received. The argument that regressive taxes aggravate the problem of inequality gains relevance here. A regressive tax when imposed on necessities contributes to increasing income inequality. The burden of a tax on essential goods will fall heavily on the poor people. The more elastic the demand curve, the easier it is for consumers to reduce quantity instead of paying higher prices. The more elastic the supply curve, the easier sellers can reduce the quantity sold instead of taking lower prices. In a market where both the demand and supply are very elastic, the imposition of an excise tax generates low revenue.

Regulation of the tax rates is considered one method for generating the desired amount of revenue by the government. The tax rate is the actual percentage of tax imposed by the government on a person's income. Higher tax rates yield higher revenue. However, Laffer differs from this notion.

The Laffer curve hypothesis proposes the theoretical explanation of the relationship between tax rates set by the government and the tax revenue collected at the same rate. The hypothesis explains that there is no tax revenue collection at the two extreme tax rates of 0 per cent and 100 per cent. However, there is one such optimal tax rate between both these extremes that maximise tax revenue collection. It is based on the main assumption that if taxation on a certain activity, like production, is increased beyond a certain point, less of it is produced. Beyond the optimal tax rate, the workers start to believe that their extra efforts are resulting in lower income and hence they work less. Consequently, income falls and tax collection decreases.

If the economy is in the normal range of the Laffer curve, a tax cut will have a stimulating effect on output, but the revenue from the tax will be reduced. Whereas, if the economy is in the prohibitive range of the curve, a tax cut will raise revenue in addition to enhancing output. Higher tax rates may induce people to substitute leisure for productive effort. A higher tax rate increases the burden on taxpayers. In the short term, it may increase revenues by a small amount but carries a larger effect in the long term. It reduces the disposable income of taxpayers, which in turn, reduces their consumption expenditure. Aggregate demand in the economy falls and due to an increase in unsold stocks, producers create less. This leads to unemployment and producers feel that there is no incentive to produce more and earn more income, as most of it is taken away in taxes. The tax base for the government falls and so does its tax revenue. However, whether a decrease in tax rates would increase tax revenue depends to a large extent on the elasticity of labour supply, ie, how much workers respond to increased incentives. Moreover, a decrease in tax rates would also increase saving and capital formation and would reduce the incentive to acquire tax shelters. Hence, going by the results of the Laffer curve shows that increasing the tax rates does not guarantee an increase in tax revenue.

Experiments to generate more revenue also involve the management of the tax base. Expansion of the tax base is the method resorted to, to raise tax revenue. The tax base is all the items or activities that are subject to a tax. Taxes are referred to as broad-based and narrow-based in terms of the tax base. A broad-based tax has a higher potential tax base, ie, more items are being taxed and a narrow-based tax applies to fewer items. Verily a broad tax base rakes up more revenue than a narrow tax base. Hence tax base expansion aids in increasing revenue. Tax base expansion refers to the inclusion of more items under the tax network. There also exists a trade-off between the tax base and tax rate, the broader the tax base, the lower the tax rates can be. And the narrower the tax base, the higher the tax rate must be to fund a given level of public services. Nevertheless, higher revenue will mount up only if the citizens pay the tax, irrespective of the tax rate and the tax base.

The doctrines of taxation are inevitably followed in the framing and implementation of each tax. The tax base has been increased with the shift from sales tax to VAT (Value Added Tax) and GST (Goods and Services Tax) thereafter.

However, with the latest implementation of GST, the autonomy of the states has been reduced greatly. The states can no longer fix tax rates according to the revenue requirements. In the state of Kerala, even though a consumer state, the implementation of VAT and GST has not been able to rake up the expected revenue. The centralisation of tax rates has forced the state to explore other ways to garner the required revenue. With more and more items listed under the taxation network and consequent increases in the tax base the inability to increase the revenue earned by the government points to the presence of leakages in tax collection.

The question of proper payment of taxes brings forth the concept of tax compliance. The disparity in the tax potential of the state and actual tax collection steers the discussion towards tax compliance.

2.3 Models governing Tax Compliance

Tax compliance describes taxpayers' willingness to pay their taxes. Tax compliance implies the payment of taxes along with producing and submitting information to the tax authorities on time. The behaviour of people towards tax payment is tax compliance. In other words, it is the degree to which a taxpayer complies, or fails to comply, with the tax rules of his country. Tax compliance behaviour shows the behaviour of taxpayers to pay the tax and also evade tax. Non-compliance represents the failure to meet tax obligations, irrespective of whether it is intentional or not.

McBarnet (2001) makes a distinction between the different forms of tax compliance; committed compliance where the taxpayers' willingness to pay their taxes without complaints, capitulate compliance pertains to reluctantly giving in and paying taxes and creative compliance is stated as the engagement to reduce taxes by taking advantage of possibilities to redefine income and deduct expenditures within the brackets of the law.

There are various theories governing tax compliance behaviour among taxpayers. Allingham-Sandmo model, Institutional Anomie Theory, Theory of

Planned Behaviour, Economic Deterrence model and the Social/Fiscal psychological Model are the major theories.

The Allingham and Sandmo Model (A-S Model) was one of the early studies on tax compliance behaviour. It focuses on economic factors which determine the tax compliance behaviour of taxpayers. Michael G. Allingham and Agnar Sandmo proposed a microeconomic income tax evasion model in 1972. The essence of the model is a taxpayer who must fill in the tax return, needs to decide what to do, i.e., whether to indicate the whole sum of income or to indicate only part of income. If the taxpayer chooses the latter path, he can be trialled by the tax authority and punished. Here, the situation becomes worse than in the case of being honest.

The assumptions of the model are.

1) The taxpayer is risk-averse, and his income decides his utility function.
2) W is the total income of the person to be declared.
3) X is the sum of personal income indicated in a tax return. This may be equal to W if a taxpayer is an honest person or below W if a taxpayer decides to underreport his income
4) θ is the proportional rate of income tax
5) p is the probability that a person will be inspected by tax authorities. If the taxpayer is audited, the whole sum of unreported income (W – X) will be determined
6) If the taxpayer is found to have hidden part of his income, a penalty is imposed where the amount of unreported income is taxed at a rate π which is higher than the tax rate θ.

The taxpayer decides how much revenue is to be disclosed and his decision is based on the maximization of his utility under risk. The taxpayer strives to maximize his utility, V.

$$V= (1-p) * U (W-\theta X) + pU (W-\theta X-\pi (W-X))$$

- The utility when the taxpayer is not checked, $U (W - \theta X) = U(Y)$

- The utility when a taxpayer does not disclose all income, his return is verified and a fine is imposed, $U(W - \theta X - \pi(W - X)) = U(Y)$

The model also states that the taxpayer will conceal part of his income if the probable sum of taxes related to underreported income is less than the sum of tax that would have been paid if the taxpayer was honest, i.e.: $p\pi < \theta$.

The A-S model predicts that compliance increases as the penalty or the 'fine rate', ie, a fraction of the tax evaded increases. Compliance depends on the perceived probability of detection, the tax rate and the penalty for evasion. The model shows that declared income varies directly with income, the probability of detection and the penalty, but inversely with the tax rate.

Applying a proportional tax rate, as in the A-S model, is not acceptable when dealing with indirect taxes. However, the proprietors of the business must ultimately decide how much income to disclose or keep a secret. In addition to avoiding value-added tax, the company can choose to pay a portion of the salary informally and avoid paying social security taxes and other fees if it chooses not to disclose a portion of its profits.

A few of the assumptions that can be contested were taken into consideration by the A-S model's creators. One of them was that a portion of a lawful person's income would be known to the tax authorities or may come to their attention. For instance, if customers of a business pay for its goods and services using bank accounts, the tax authority may require the bank to produce details regarding transactions in a certain bank account. Given the critique given above, it may be concluded that the taxpayer is aware of revenue that the tax authorities are aware of and will not lie about it. This presumption emphasizes once more that tax evasion occurs whenever there is a possibility to do so.

However, the A-S model only partially explained taxpayer behaviour. In this regard, Shlomo Ytzhaki states that a penalty is usually not imposed on the concealed income but rather on the unpaid amount of tax. Moreover, the model emphasizes the consequences of income tax evasion, and it is considered to be a complicated affair to predict the behaviour of legal entities. Applying a proportional tax rate to indirect taxes is not appropriate as explained in the model. But the company also faces the same question as to how much of the income to conceal or reveal.

The institutional anomie theory emerged in criminology in 1994 and was proposed by Messner and Rosenfeld. Anomie is a state in which social organisation affects individual distress and aberrant conduct. It is the widespread absence of commitment to shared ideals, norms, and rules necessary to control individuals' behaviours and goals. The theory explains the difference in crime rates across geographic areas and time as the result of the interrelationship between social institutions and culture. Institutions take on many forms, influencing society's members in a variety of ways, including limiting, guiding, and empowering them. It predicts that when the institution of the economy dominates all other social institutions, and when norms and values focus deeply on monetary success, crime rates will be higher than when there is less dominance of the economy.

According to Messner and Rosenfeld, culture and structure operate together to create higher crime rates. At the cultural level, capitalist culture puts pressure on crime by encouraging an anomic cultural environment, an environment in which people are encouraged to adopt a carefree mentality in the pursuit of personal goals and the anomic pressures inherent in the American dream are nourished and sustained by an institutional balance of power dominated by the economy. The American dream represents “a commitment to the goal of material success, to be pursued by everyone in society, under conditions of the open, individual competition”. The American Dream represents four cultural values such as achievement, individualism, universalism and the fetishism of money. Messner and Rosenfeld argue that capitalist culture promotes intense pressures for economic success at the expense of pro-social noneconomic institutions such as family, education, polity, and religion. Social structure comes to be dominated by the economic structure, thereby weakening institutional controls.

Their work, ‘Crime and American Dream’ emphasises the social response to crime and how this has affected the crime itself. It explains that even with mass imprisonment the crime rates have continued to remain at higher levels. They also discuss that the nature of punishments meted out to street offenders is harsher than that meted out to white-collar offenders. This reflects the attitude of society to the white collared lawbreakers, because of their role in the economy and society.

The lack of clarity in the concepts has been stated as one of the criticisms against the theory. Chamlin and Cochran's (2007) critique of institutional anomie theory examines the variables used in testing institutional anomie theory. Messner and Rosenfeld do not clearly state how the institutional anomie theory is to be implemented. Due to this ambiguity, falsifying this theory becomes difficult.

The theory was also criticised on the basis that the nations included in the studies of anomie theory, including in Crime and the American Dream, were not justified. In Crime and the American Dream, only advanced capitalist nations were used in the sample to examine variations in robbery and homicide rates with American exceptionalism as the focus. Chamlin and Cochran (2007) did not see why less advanced capitalist nations could not be included, as no theoretical justification was given in any of Messner and Rosenfeld's work as to what countries could and could not be included.

The economic deterrence theory is another major theory governing tax compliance behaviour. The models which have been based on the economic theory of compliance generally focus on deterrence. Deterrence can be achieved through several approaches, punitive and persuasive. That is, deterrence may take the form of increasing the probability of detection, increasing the tax rate or the imposition of tougher penalties. Alternatively, it may take on the form of better education, increased advertising/publicity and incentives.

The economic definition of taxpayer compliance views taxpayers as perfectly moral, risk-neutral or risk-averse individuals who seek to maximise their utility and choose to evade tax whenever the expected gain exceeded the cost. Thus, a pure ‘cost-benefit’ approach is given for why or why not taxpayers may comply with the tax laws. Some proponents propose that individuals are expected to weigh ‘the uncertain benefits of successful evasion against the risk of detection and punishment. Consequently, penalty structure forms a part of the punishment and is a crucial factor in an individual’s choice to evade tax. This theory is based on the concept that, if the consequence of committing a crime outweighs the benefit of the crime itself, the individual will be deterred from committing the crime. This is founded on the idea that all individuals are aware of the difference between right and wrong and the consequences associated with wrong or criminal behaviour. Proponents of deterrence theory believe that people choose to obey or violate the law after calculating the gains and consequences of their actions. This model incorporates several aspects. Firstly, the taxpayer has some level of risk aversion, the more risk averse the taxpayer is the less likely he is to evade taxes. Secondly, the taxpayer needs to know the taxation system to assess the probability of being detected and the extent of the penalties that may be incurred upon detection. The general conclusion of this theory is that compliance depends largely on tax audits and penalties. The theory implies that taxpayers will pay taxes only because of the fear of sanctions.

Fiscal psychology models blend the aspects of economic deterrence and social psychology models. The crux of this approach is that individuals are not simply independent utility maximisers, rather they are individuals with an array of attitudes and beliefs which interact and respond to social norms. While the economic deterrence models have been formulated deductively, the fiscal psychology models inductively examine the attitudes and beliefs of taxpayers in order to predict actual behaviour. The basis of this reasoning is proposed by Ajzen and Fishbein (1980) who state that attitudes are unbiased indicators of real behaviour. This theory is known as the Theory of Reasoned Action.

One of the earliest fiscal psychological models of tax compliance was developed by Strumpel (1960), where he asserts that the rigidity of assessment by the tax authorities is likely to reduce taxpayers’ level of compliance with the tax laws.

Reasoned action adds an element of behavioural intention in the process of persuasion. Rather than predicting attitudes, the theory predicts behavioural intention, which is a compromise between stopping at attitude predictions and predicting behaviour. The theory predicts behavioural intention which is created by attitudes and subjective norms. The model indicates that taxpayers' behaviour is directly determined by their intentions which are a function of their attitude towards behaviour and perception of subjective norms.

Fishbein and Ajzen define subjective norms as "the person's perception that most people who are important to him think he should or should not perform the behaviour in question" (Fishbein and Ajzen 1975). According to theory, the attitude of a person towards a particular behaviour is determined by his beliefs on the consequences of this behaviour, multiplied by his evaluation of these consequences. Beliefs are defined by the person's subjective probability that performing a particular behaviour will produce specific results.

The Theory of Planned Behaviour is an extension of the Theory of Reasoned Action. The need for a new model resulted from the limitations on behaviours over which people had little control. The element of perceived behavioural control, which has an influence on a person's intention to perform a particular behaviour according to Ajzen, was added to the model. Perceived behavioural control refers to readily available resources, skills and opportunities as well as the person's perception towards the importance of achieving the results.

The model is built on the basis that human behaviour is guided by three kinds of considerations, namely, beliefs about the probable outcomes of the behaviour, the evaluations of these outcomes and beliefs about the normative expectations. The behavioural belief in their respective outcomes results in favourable or unfavourable attitudes towards behaviour. Subjective norms and control beliefs give rise to perceived behavioural control. In combination, the three kinds of considerations lead to the formation of a behavioural intention. The more favourable the attitude and subjective norm and the greater the perceived control, the stronger should be the person's intention to perform the behaviour in question.

In short, given a sufficient degree of actual control over their behaviour people are expected to carry out their intentions when the opportunities arise. Some experts believed human behaviour is guided by different subjective probabilities like the belief about the consequences of the behaviour, belief about the normative expectations of other people and beliefs about the presence of factors which may facilitate or impede the performance of the behaviour. The beliefs which are based on background factors have a behavioural belief which produces an attitude towards behaviour, normative beliefs which result in subjective norms and control beliefs that generate perceived behavioural control. The instructions that people give to themselves led to behave in a certain way which is the behavioural intention and represents an individual's motivation plan to exert effort to perform the behaviour. Finally, the assumption is that intention is the immediate antecedent of behaviour.

The way tax authorities view taxpayers and how they interact with them, as a result, influence their relationship. From an exchange perspective, the manner of communication shapes the psychological contractual relationship between the parties, which in turn affects tax morale and, as a result, compliance willingness. Particularly in a partnership where tax authorities have legal and professional authority, mutual respect, honesty, and trust are likely to result if tax authorities consider taxpayers as fair partners rather than inferiors unwilling to pay their share.

Strong norms encouraging certain conduct, positive attitudes, and the perception of control over one's actions should all be linked to behavioural intentions. Taxpayers should be more likely to comply with the law regarding tax evasion if they believe that doing their taxes is right if they believe that there are limited opportunities to do so, and if they hold certain societal values in high respect.

Therefore, normative expectations and beliefs are influential in determining tax compliance intentions. Resultantly, while tax policies are determined, moral and social norms should be taken into consideration with the purpose of increasing tax compliance. The efficiency of the tax penalty system also needs to be upped in order to ensure that enforced tax compliance is increased.

Taxes may not be a contentious topic in daily life. But occasionally, particularly when taxes are due, when government spending is disputed, or when new taxes are imposed, people strive to understand what they have given to society. Additionally, people judge fiscal policy, tax rates, and the use of taxes for the provision of public goods, as well as their interactions with tax authorities, as a result of the public discussion of taxation problems. Eventually, motivation to comply or not comply with consequences for subsequent behaviour arises.

The discussion on tax compliance theories narrows down to the role of social and psychological factors in the decision to pay taxes. Tax compliance is theorised to depend on the penalties for non-payment and the beliefs and attitudes of the people towards the behaviour of evasion.

2.4 Inferences

An evaluation of the theories of public expenditure, public revenue, tax revenue in particular, and tax compliance theories have set the framework for the study by revealing the reasons and factors influencing each. The inferences derived are the following.

1. Wagner's law of State interpreted that public expenditure of the state increases as the state achieves development. The working of Wagner's law vindicates increased spending by the government. Kerala, being welfare oriented in its development, is deeply reliant on public expenditure. Welfare orientation justifies the large-scale revenue expenditure of the state.
2. The recent natural calamities in the form of cyclones, floods and the pandemic would also play a significant role in accelerating the growing expenditure. This is validated by Peacock and Wiseman through their hypothesis of expenditure increasing in a step-like manner. This explains and validates the increasing public expenditure of the state. However, it is not just the size of expenditure that matters in an economy. The quality of expenditure incurred is crucial for sustenance in the long run.

3. The theories of taxation, which explain the mobilisation of public revenue, have not been able to explain the falling revenue of the Kerala government. The principle of optimal taxation reasoned increased revenue if the revenue raised was met for improving social welfare. Even with the state hailed for following a pro-people policy and concentrating on social services, the inability to raise required revenue questions the success of the expenditure incurred. With the power to fix tax rates curtailed through the implementation of GST, states can no longer raise taxes by increasing tax rates.

The failure of the state to raise the required revenue points to the importance of tax compliance. The study attempts to analyse the attitudes and behaviour of traders and consumers towards tax compliance.

4. The economic deterrence model emphasised on the role of penalties in tax avoidance and evasion. The model focuses on the compliance variable as an economic variable of deterrence, which includes the likelihood of being caught and the range of penalties applied to those who are caught.
5. The social/fiscal psychological model explains the role of psychological variables including moral values and the perceptions of equity and fairness held by the taxpayers. Social norms and attitudes of people towards non-payment of tax control tax compliance.

The theories of tax compliance set the path for the study by identifying the factors that affect tax compliance. From the theories on compliance, it can be drawn that the decision to comply with tax rules depends on factors like tax penalties, social norms, attitudes, cultural factors, perceived opportunity to evade, tax morale, tax knowledge and the interaction between tax authorities and taxpayers affect compliance significantly.

CHAPTER III

CHANGING STRUCTURE AND COMPOSITION OF PUBLIC EXPENDITURE IN KERALA

The section attempts to present a detailed analysis of the public expenditure incurred by the state of Kerala. The analysis first portrays the picture of the public expenditure of the central government before delving into the analysis of the state public expenditure.

3.1 An Outline of Public Expenditure

A public budget is a financial document created by the government to help it meet fiscal policy goals such as effective allocation, redistribution, and stabilisation. On the other hand, the current administration can use it as one of the most potent financial tools at their disposal to carry out their political agenda and development objectives. It is a breakdown of the state's anticipated expenditures and predicted revenue for a certain fiscal year. The budget was referred to the as "Annual Financial Statement" of receipts and expenses for a fiscal year in the Indian Constitution. This statement includes every action taken by the state government in the years prior, present, and following.

There are three elements to the state budget. The Constitution's Articles 266, 267, and 284 specify how these portions are created:

Part I: All "ordinary" budgetary transactions, whether they are of a capital, revenue, or loan character, come from the Consolidated Fund.

Part II: The Contingency Fund, which will provide advances to cover unanticipated and unavoidable urgent expenses, such as those for "New Service." The Public Account handles transactions involving deposits, advances, remittances, and suspense involving public funds.

Part III: The Public Account, money that the state keeps in trust for other entities but which do not legally belong to the state are included. Although the net receipt in the Public Account is taken into consideration to balance the Budget, expenditures from the Public Account do not need the consent of the Legislature.

Government expenditures comprise expenditures on social, economic and general services. The structure of government expenditures since the eighties has been influenced mainly by the change in the role of the government in the growth process, the financing pattern of deficits (debt and interest payments) and the need for fiscal consolidation. The immediate response to the economic crisis in 1991 was the compression of expenditures since the revenue mobilisation was constrained by the need for rationalisation of the tax structure and aligning the tax rates with international standards. Since then, there had been a shift away from the plan expenditures accompanied by a reduction in capital expenditures.

The state governments had been making ad hoc and across-the-board cuts in government expenditure, instead of identifying and abandoning unproductive schemes altogether. This has been rendering government expenditure increasingly unproductive in the process.

The chapter is framed in two parts; the first part presents the trends and pattern of public expenditure of the central government and the picture of public spending by the state of Kerala is presented in part two.

3.2 Synopsis of Union Public Expenditure

The functioning of the Indian economy, a mixed economy, is on the participation of the public and private sectors in economic activities. It is a developing economy which needs huge public expenditure in the social and infrastructure sector. The major components of public expenditure in India are interest payments, defence, pensions, salaries and subsidies. The increasing need for public expenditure and deficiency in funds with the government raises the need for better utilisation of public expenditure and efficient management of fiscal deficit. The government has taken several initiatives to improve the efficiency and utilisation of defence expenditure, encouraging private sector participation in this sector and promoting self-reliance. The implementation of the Fiscal Responsibility and Budgetary Management Act 2003, aiming to contain a fiscal deficit within 3 per cent was one of the measures.

The following table shows the composition of public expenditure in India and its share in the Gross Domestic Product (GDP).

Table 3.1. Expenditure of the Government and its share in GDP

(In Rupees Billion)

Year	Revenue Expenditure	Capital Expenditure	Total Expenditure	Revenue Expenditure GDP Ratio	Capital Expenditure GDP Ratio	Total Expenditure GDP Ratio
1990-91	735.16 (69.82)	317.82 (30.18)	1052.98	13.8	6.0	19.8
1995-96	1398.61 (78.45)	384.14 (21.55)	1782.75	12.5	3.4	15.9
2000-01	2778.39 (85.33)	477.53 (14.67)	3255.92	13.9	2.4	16.3
2005-06	4393.76 (86.88)	663.62 (13.12)	5057.38	13.0	2.0	14.9
2010-11	10407.23 (86.92)	1566.05 (13.08)	11973.28	14.4	2.2	16.5
2015-16	15377.61 (85.87)	2530.22 (14.13)	17907.83	11.2	1.8	13.0
2020-21	26301.45 (86.5)	4120.85 (13.5)	30422.30	15.6	2.2	17.7

Note: Figures in Parentheses represent the share of total expenditure

Source: Database on Indian Economy, Reserve Bank of India, 1990 to 2022, Mumbai

The first major trend in public expenditures which is observed in India is the growing revenue expenditures of the government from Rs. 735.16 billion in 1990-91 to Rs. 26301 billion in 2020-21, which is more than a 30-fold increase. Increased defence expenditures, expansion of the administration, increase in government's participation in socio-development activities like education and public health, working of democratic institutions like the Parliament, the government's international commitments, rise in prices, etc. are responsible for increased revenue expenditures of the Central Government. Capital expenditures during the same period increased only about 10-fold, from Rs. 317.82 billion in 1990-91 to Rs. 4120.85 billion in 2020-21.

The finances of the government had reached a critical stage in 1990-91. Government expenditures stood at 19.8 per cent of GDP in 1990-91 has increased steadily through the eighties. This ratio started falling in the nineties after the reforms, mainly because of the macroeconomic stabilisation programme that followed the 1991 Balance of Payment (BOP) crisis. It fell to 17.4 per cent in 1992-93 and further down to 15.4 per cent in 1996-97. Compression in total expenditures was mainly sought on account of the reduction in capital expenditures as a percentage of GDP. As a percentage of GDP, capital expenditures fell from 6.0 per cent in 1990-91 to 4.0 per cent in 1992-93 and then further down to 2.4 per cent in 2000-01, indicating that such expenditures had borne the major burden of fiscal adjustment. Revenue expenditures continued to stay high in the range of around 12 per cent in the nineties, mainly because of the increase in interest expenditures from 4.04 per cent in 1990-91 to 4.96 per cent in 1999-2000. However, a sharp rise in salaries and pensions following the acceptance of the Fifth Pay Commission report in 1996-97 pushed the revenue expenditures level as a percentage of GDP from 12.20 per cent to 13.00 per cent in 1998-99 and 13.9 per cent in 2001-02. This ratio continued to rise until 2002-03 until the Fiscal Responsibility and Budgetary Management (FRBM) Act was announced, where it was 14.5 per cent.

The composition of total expenditures was skewed in favour of revenue expenditures in the nineties. The ratio of revenue expenditures to total expenditures increased from 69.82 per cent in 1990-91 to 85.33 per cent in 2000-01. Capital expenditures as a percentage of total expenditures reduced from 30.18 per cent to 14.67 per cent. 2003-04 witnessed an improvement in the composition of expenditures with revenue expenditures declining to 77.14 per cent of total expenditures in 2004-05 and capital expenditures increasing to 22.75 per cent respectively. This was facilitated by a decline in major subsidies, lower growth in interest expenditures and non-plan expenditures and pension reforms.

After the FRBM Act was passed, the Central Government’s total expenditures fell from 17.9 per cent in 2003-04 to 16.8 per cent and to 14.9 per cent of GDP over the next two years. However, this expenditure control was achieved by cutting down capital expenditures sharply while revenue expenditures showed only a marginal decline. Thus, the composition of government expenditures, which was always a matter of concern, remained unchanged with revenue expenditures accounting for about 80 per cent of total expenditures. As a percentage of GDP, capital expenditures declined from 6 per cent in 1990-91 to 2.4 per cent in 2000-01, to 2.2 per cent in 2010-11 and further down to 1.8 per cent in 2017-18. By contrast, revenue expenditures, which were 13.8 per cent of GDP during 1990-91 have remained nearly the same with slight fluctuations over the years.

In 2008-09, revenue expenditures jumped to 15 per cent from 13 per cent in 2007-08. One reason for this was, as in the mid-nineties, the implementation of recommendations of the Sixth Pay Commission Report. Furthermore, the debt waiver on farm loans and enhanced expenditure on subsidies also contributed to the increased revenue expenditures. Interest payments, which accounted for around 20-30 per cent of total expenditures, stood at about 4-5 per cent of GDP until 2003-04. However, this came down to 3.73 per cent in 2007–08, continued to fall and was recorded at 3.50 per cent in 2017-18. This, however, was not achieved through a reduction in borrowings but rather was an effect of softening of interest rates. The other major item of revenue expenditures had been subsidies, mainly food subsidies that were increasing throughout. The per cent of revenue expenditure once again climbed up to 14.4 per cent in 2018-19 with the increase in interest payments and major subsidies constituting more than forty per cent of the increase.

The measures taken by the government to counter the effects of the global meltdown on the Indian economy had resulted in a shortfall in revenues and substantial increases in government expenditures, leading to a temporary divergence in the years 2008-09 and 2009-10 from the fiscal consolidation path mandated under the FRBM Act. Total expenditures increased to 16.70 per cent of GDP in 2008-09 from 15.6 per cent in 2007-08 and went up to 16.8 per cent in 2009-10. The revenue expenditures increased from 13 per cent in 2007-08 to 15 per cent in 2008-09. This was due to high levels of subsidies and fiscal stimulus packages provided to salvage the economy. Subsequently, with the partial withdrawal of the stimulus packages and cutting down on petroleum subsidies, the total expenditures started a downtrend and has fallen to 14.6 per cent in 2017-18.

Revenue expenditures fell to 12.8 per cent during the same period marking the recovery of the economy.

Not only the increasing burden of debt but also the higher interest rates have resulted in a significant part of revenue receipts being used for interest payments. With the government borrowing at a market-determined rate of interest, the average cost of borrowing had considerably increased in the nineties. The fiscal consolidation process undertaken during the reforms of the nineties brought in some control over the debt burden of the government in the first half of the nineties. Still, the interest burden was high and continued to increase because of the alignment of interest rates on government borrowings from sub-market to market rates, which led to a rise in the weighted average interest rate on market borrowings of the government. In the latter half of the nineties, the debt burden started increasing due to a slowdown in reforms, which further added to this interest burden. This happened despite a softer interest rate regime. The reason was a high level of debt burden at higher interest rates earlier. In 1991- 92, the interest as a percentage of GDP was 4.33 per cent and it went up to over 4.42 per cent in 1992-93, staying in that range for a long time. With the softening of interest rates and progressive reduction in the average cost of internal borrowings, a declining trend in interest payments was witnessed from 2003- 04 onwards. Interest payments appropriated substantial proportions of revenue receipts and the efforts post-FRBM Act was to reduce the levels of deficits to contain the interest burden. Reflecting this, as a proportion of GDP, interest payments came down from 4.37 per cent in 2003-04 to 3.50 per cent in 2017-18.

Expenditure on subsidies is a crucial element of government expenditures, particularly in the light of targeting poverty alleviation and the growing need to control expenses for fiscal consolidation. Subsidies on food, fertilisers and export promotion, are an integral part of the Central Government expenditures and despite the government’s frequent promises to reduce them, they have continued to rise, year after year.

Major initiatives taken to curtail expenditures on subsidies were phasing out of the export subsidies at the beginning of the reform period and decontrol of fertiliser prices. Accordingly, total subsidies of the Central Government reduced from 2.29 per cent of GDP in 1990-91 to 1.13 per cent by 1995-96. Coinciding with the implementation of the Fifth Pay Commission recommendations, subsidies increased to 1.41 per cent in 1998-99. In 2002-03, they rose to 1.86 per cent of GDP due to the introduction of petroleum subsidies with the dismantling of the administered price mechanism. The subsequent years saw a declining trend and subsidies as a ratio of GDP, went down to 1.40 per cent in 2005-06.

The subsidies as a percentage of GDP went up again to 2.45 per cent in 2008-09 when the economy suffered a setback due to the global financial crisis. A series of stimulus packages was released which included an interest subsidy for export finance to support certain export-oriented industries. Another cause of increasing subsidies was increasing crude oil prices. The rates have been gradually falling with the withdrawal of subsidies as the economy had set on the path of recovery. In 2017-18, subsidies were 1.76 per cent of the GDP.

The growth in revenue expenditure in 2018-19 has been led by salaries, pensions and interest payments. The expenditure on defence, salaries, pensions, interest payments and subsidies take up more than sixty per cent of total expenditure. Major subsidies constituting food, fertiliser and petroleum have continued their downward trend. However, the quality of expenditure has improved with the capital expenditure as a per cent of GDP increasing. 2020-21 accounted total expenditure of Rs. 35.09 lakh crore which comprised of revenue expenditure of Rs. 30.83 lakh crore and capital expenditure of Rs. 4.28 lakh crore and was 15.6 per cent and 2.2 per cent of GDP, respectively. The expenditure on major subsidies, a significant component of non-committed revenue expenditure, was pegged at 7.3 per cent of GDP in 2020-21. The expenditure on major subsidies has shown a declining trend over the past years. In 2020-21, the major subsidies are estimated at Rs. 7.58 lakh crore owing to requirements for food, fertilizer and petroleum subsidies.

The expenditure policy during the year 2020-21 has focused on restructuring and prioritisation of expenditure to meet the unforeseen expenditure demands arising due to COVID-19. The total government expenditure for 2020 stood at 62.7 per cent of the Budget estimate, compared to 65.3 per cent in 2019. The revenue expenditure has grown by 3.7 per cent during 2020-21 compared to 2019-20. The subsidies registered a negative growth of 14 per cent during the first eight months of 2020-21. The decline in global petroleum prices acted as an important fiscal shock absorber during 2020-21, as it led to a decline in petroleum subsidies and an increase in revenue collection from excise duties.

It may be deciphered that even though public expenditure is growing in India the rate of increase has slowed down. It is also to be noted that the expenditure pattern has shifted from capital expenditure, with revenue expenditure taking up a larger share of GDP than capital expenditure.

3.3 An Inquiry into State Public Expenditure

The structure of Kerala's public spending may be largely attributed to the Kerala Model of Development, which places a lot of focus on social and community services including health, education, and social welfare at rates that are significantly higher than in most states. This pattern of spending is largely to blame for the budgetary problems the state has been experiencing recently. The pattern of expenditures becomes substantially slanted in favour of revenue expenditures as a result of the state's concentration on social infrastructure and welfare. A similar policy likewise has a propensity to foster vested interests in its endless continuation. It is immaterial whether or not this is the case in Kerala; what matters is that, because of limited resources and the state's obvious desire for social infrastructure and welfare, revenue expenditures significantly outweigh total expenditures, with capital expenditures typically making up a very small portion. To understand the picture of the economy it is invariable to understand the development experience of the state over the years.

3.3.1 An Anecdote of Kerala's Development Journey

Economic growth and high measures of human development exist side by side in Kerala's current economic situation. In terms of human development, Kerala has outperformed the rest of India in terms of low population growth, a desirable sex ratio, high literacy rates (especially among women), high life expectancy, high medical efficiency, low infant mortality and death rates, low fertility rates, and low poverty rates. Due to the state's social welfare programmes, the high level of public investment in the social sector, and the significant sums of remittances received from Keralites working outside Kerala, mainly in the Middle Eastern countries, all these accomplishments were made possible. Many times, Kerala's highly praised development experience is presented as a paradox of social advancement despite economic stagnation or slow growth. However, this definition mostly applied to Kerala's economy during the 1970s and the first half of the 1980s, when it experienced a protracted period of economic stagnation. When looking at the state's economic history over a longer period, starting with its early history, it could not be entirely accurate.

Kerala's journey exhibits certain paradoxical characteristics. Kerala has experienced very subpar per-capita income growth that has consistently lagged behind the national average. The physical quality of life is also far superior to that of any other area in the nation, as seen by decreased newborn mortality, low death rates, high life expectancy, and the state's higher literacy rate. As a result, a state with a relatively low per-capita income has social indicator levels that are comparable to those of wealthy nations. High unemployment rates are an unavoidable result of the high literacy rate, which oddly is accompanied by relatively high salary rates.

Even though Kerala's economy experienced a period of protracted stagnation up till the middle of the 1980s, from 1987–88 to 2001–02 the state's GDP increased at a reasonable rate. A period of increased economic development from 2002 to 2003 followed this (Government of Kerala (GoK) 2015). Kerala's gross state domestic product increased on average every year between 1970–1971 and 1986–1987 at a rate of 1.12%. However, the figures for the same were 5.84 per cent from 1987–1988 to 2001–02 and 7.83 per cent from 2002–03 to 2014–15, respectively. Additionally, Kerala's GSDP and per capita GSDP increased at higher rates during the post-economic reforms period (1993–1994 to 2013–2014) than the other major Indian states, at 6.62 and 5.97 per cent respectively, as opposed to 6.56 and 5.08 per cent, respectively. Construction, transport, storage, and communication; trade, hotel, and restaurants; real estate; and commercial, legal, and other communication services are the main drivers of Kerala's economic growth.

In terms of Kerala's economic structure, agriculture and related services' contribution to the state's gross domestic product (GSDP) has decreased from 30% in 1990–1991 to 10.6% in 2010–2011. Agriculture and related industries' growth rate dropped from 2.34 per cent in the 1990s to 0.46 per cent in the decade that followed. Kerala's GSDP is accounted for by the industrial sector to the tune of 21%, which is notably less than the national average of more than 28% (GoK 2015). Even more discouraging is the manufacturing sector's lower-than-normal GSDP share of 10% (16 per cent).

3.3.1.1 Agricultural Sector

Agriculture has played a distinct and important role in Kerala's economy over the past 50 years. In the beginning, agriculture acted as a catalyst for economic development by increasing the size of the rural housing market. Kerala's rural incomes were significantly increased by the inclusion of high-value, commercial commodities in the cropping cycle, including spices, plantation crops, and rubber.

Since Kerala gained its independence, the agricultural sector has gone through numerous stages of development. The growth of rice production was the main focus of state policy, and between 1950 and 1960, both its area and productivity increased very quickly. This was made feasible by the state's severe rice shortage, its rapidly rising price, and the public distribution system's deficient performance. Even though agricultural labour wages were rising rather quickly due to the wage-bargaining demands put on workers by heavily political trade unions, growing the area under rice was made viable and profitable. The area used for rice production started to rapidly decrease towards the beginning of the 1970s for a number of reasons. When the Green Revolution began in the late 1960s, the country's supply of rice rose sharply nationwide, and the Kerala shortage crisis vanished almost immediately. Private commerce in rice grew when zonal restrictions on its trade were lifted. Since that time, rice prices have stayed constant.

Despite the declining demand for labourers in the rice industry and the wider agricultural sector, wage rates continued to rise steadily. Despite a rise in wages, there was a dramatic shift toward a situation where workers of all ages and educational levels

Sought employment opportunities abroad. The availability of labour in agriculture started to decline. There was a growing process of land conversion from agriculture to non-agricultural for the purpose of building homes, shopping centres, and public highways, as well as from annual and seasonal crops to perennial tree crops like coconut and rubber.

Over time, there has been some fluctuation in the Gross Value Added of agriculture and related sectors (at constant 2011–12 prices). In 2017–18, the industry experienced significant growth of 2.11 per cent. The growth rate was minus in 2018-19 and 2019-20 as a result of floods and the resulting damages. Agriculture and related activities saw a 3.38 per cent growth rate in 2020–21 compared to (-)5.09 per cent in 2019–20. The crop industry saw growth of 5.44 per cent as opposed to (-)5.53 per cent in 2019–20. At constant prices, the livestock and agriculture sectors experienced positive growth in 2020–21. In contrast to the rest of India, Kerala had a severe decline in the number of people working in the primary sector, with only 19.3 per cent of all workers in Kerala employed in the primary sector in 2018–19.

The Covid-19 epidemic has had a variety of effects on Kerala's agriculture industry. First, the dramatic slowdown in worldwide commerce in agricultural goods has resulted in income losses for growers of commercial crops in the State. Second, after the lockdown started, the domestic prices of the majority of agricultural produce, livestock goods, and seafood dropped significantly. Thirdly, the lockdown and the resulting shortage of labour, particularly migrant workers, have hampered the operation of some agricultural processing units. Lastly, the lockdown has caused significant economic losses for public agricultural institutions.

3.3.1.2 Industrial and Manufacturing Sector

Since independence, Kerala's economy has remained non-industrialized due to the development of an anti-investment climate in the state brought on by aggressive anti-capitalist propaganda and the restriction of resources that can be invested in the private sector. Kerala made up over 3.75 per cent of the nation's total industrial employment, but its share of total fixed capital was only 1.69 per cent and its value of gross production was just 2.19 per cent (GoK 2004; 2005), despite the state having roughly 3.1 per cent part of the whole population.

During the 1990s, the registered industrial sector's percentage share somewhat decreased. In comparison to the 1980s, the industrial sector's rate of increase was slightly higher in the 1990s. Food processing, rubber, plastic, and petroleum goods, as well as chemical items, lead the manufacturing sector. Paper and paper products, as well as machinery and equipment, are the other commercial groups. Natural resources dominate the industrial framework. Even after economic liberalisation, Kerala's share of private investments, including foreign direct investment, was quite low.

Kerala's economy has been recovering since 2016 in large part due to a resurgence in the industrial sector's productivity. Industries' annual rates of value-added growth were 18.2% and 6.1% in 2016–17 and 2017–18, respectively; however, in 2018–19 and 2019–20, those growth rates fell to 1.78 and 1.54%, respectively. Kerala's industrial sector's overall contribution to GSVA was only 9.8% in 2014–15, but by 2019–20 it had increased to 12.5%. Based on the Annual

Survey of Industries, Kerala's contribution to the total value added by India's manufacturing sector increased from 1.2% in 2014–15 to 1.6% in 2016–17. The rejuvenation of State PSU efficiency (primarily in the chemicals and electrical machinery sectors), capital ventures in petroleum refining, and a new reinvigoration to the production of electronic components are some of the greatest aspects of Kerala's industrial sector's enhanced performance from 2016–17 onward.

According to Periodic Labour Force Survey data, Kerala's industrial sector employed 12.8% of the state's labour force in 2017–18. They include the 3.1 lakh workers in the industrial sector in 2017–18. The organised manufacturing sector and the factory sector are remarkably similar. The factory sector includes businesses with more than 10 employees that use electricity to run their operations. The primary source of information on the factory sector is the Annual Survey of Industries, which is issued by the Ministry of Statistics and Programme Implementation of the Indian government. The number of people employed in Kerala's traditional industries has significantly decreased over time. This is due to several structural issues these businesses are currently experiencing, as well as the exodus of a younger generation of educated employees from the old industries.

Moreover, it is noteworthy that Kerala is experiencing a sizeable expansion of a new set of contemporary industries. Chemicals, refined petroleum products, rubber and plastic products, electronic products, medicines, and medicinal botanical items are Kerala's top enterprises in terms of value contributed. The Kochi Refinery of Bharat Petroleum Corporation Limited (BPCL) has been significantly increasing its refining and petrochemical production capacities, which holds excellent potential for Kerala's chemical and related businesses. In Kerala, the contribution made by refined petroleum products surged eight times between 2011–12 and 2016–17. Kerala experienced substantially a higher increase in the value contributed by the industrial sector when compared to the equivalent national averages in a variety of industries, including chemicals, textiles, pharmaceuticals, furniture, jewellery, and medical equipment.

Throughout the 2010s, Kerala's finance, real estate, and professional services sector—which includes the IT industry—grew incredibly quickly. Over 90% growth was seen in this industry between 2012–13 and 2018–19. In Kerala's Gross State Value Added, the sector now accounts for 21.6% of all revenue, up from 16.8% in 2011–12. In Kerala, a significant portion of the workforce is employed in the fields of professional services, finance, real estate, information technology (IT), public administration, and medicine. Together, these sectors engaged 25.9 lakh people in the State, including 13.3 lakh women. Professionals with comparatively high levels of education and expertise are employed in these activities. Kerala accounts for 4.6% of all employment in the aforementioned industries at the national level, which includes the activities like IT, public administration, real estate and medical.

There are many explanations offered for the expansion of the tertiary and construction industries. Large-scale remittances from non-resident Keralites are one important cause. The state's consumption has increased as a result of these. In 2004–2005, the state with the lowest National State Domestic Product (NSDP) per capita rankings also had the highest per capita consumer spending. The industries of commerce, lodging and dining, transportation, finance, and real estate all benefited from remittances. The rise of the health and education sectors is a result of this. The significant rise of the private sector in higher education, as well as the health sector, is related to the increase in employment in education and health services. These industries are growing as a result of rising demand from non-residents for these services, even though the costs are greater.

Another booming industry in Kerala is tourism, which has helped to boost other service industries, particularly the hotel, transportation, and financial sub-sectors. Kerala is quickly becoming one of the top travel destinations for visitors to India. Kerala's percentage of international visitors to India has been gradually increasing, reaching 11.2 per cent in 2008. Six per cent of the nation's overall income is thought to come from visitors visiting Kerala in the form of foreign exchange. Additionally, there are more domestic tourists now than ever before.

Despite the challenges the State experienced and the obvious indicators of a recession in the national economy, Kerala's GSVA expanded at rather rapid rates between 2016–17 and 2018–19. Fishing and aquaculture, manufacturing, trade, hotels and restaurants, social services—particularly health and education—public services, and professional services are among the industries that have added to this rapid expansion. Among the standouts of the enhanced performance of Kerala's manufacturing sector from 2016–17 included a rebound in the efficiency of State public sector units in the chemicals and electrical sectors, new investments in petroleum refining, and a new impetus to the manufacture of electronic components. The Covid-19 pandemic, however, has significantly affected economic activity in the State, slowing growth rates.

3.3.1.3 State Finances

Kerala is renowned for its distinctive strategy for fostering both social and economic growth as well as a variety of welfare activities that the State has embraced as the cornerstone of its policies. In this pursuit, the state has made every effort to guarantee social welfare and security to everyone by striking a balance between benefit programmes and fiscal restraint. But throughout the past four years, the Government has had to deal with enormous difficulties that were out of its control. The period from 2017 to 2021 has been extraordinarily challenging for the state, marked by significant economic shocks that have severely taxed the State's financial power and hampered the Government's efforts of fiscal consolidation. The state's resources and economy have been negatively impacted by demonetization in 2016, issues with the Goods and Services Tax's implementation, the Ockhi Cyclone in 2017, the spread of the Nipah virus, the emergence of the Coronavirus in 2020 and 2021.

The challenges brought on by the natural calamities were made even worse by external economic shocks. The spate of nationalisation laws passed by the members of the Gulf Cooperation Council represented the State's biggest external shock during this time. Non-Resident Keralites in various nations experienced significant job losses as a result of this. The Kerala economy experienced a double blow because of the job losses. Increased unemployment in the State was a result of job losses. Additionally, it lessened remittances from abroad, which accounted for a significant source of countercyclical support for the state economy. The export of Kerala plantations and allied goods decreased because of the global backlash against globalisation and the accompanying building of higher tariff barriers.

The State Government's financial health has been impacted by several laws and circumstances outside its control. The introduction of the GST has limited and imposed restrictions on the ability of governments to intervene in the tax-raising process. Stress on controlling state finances has increased, as a result of the tardiness in receiving the GST compensation. In comparison to previous years, the Central share made available to the States under Central Assistance Schemes has significantly decreased in recent years. The State of Kerala has been entitled to shared net proceeds, although this amount has been steadily declining. The proportion of horizontal devolution decreased to 1.925 per cent during the 15th Finance Commission time from the 2.5 per cent authorised during the 14th Finance Commission term, significantly reducing the State's revenue receipts.

The amount and composition of government spending significantly affect how a state develops economically and socially. It simultaneously has significant effects on both long-term economic prospects and human development. The trend and pattern of several types of expenditure are explained in this section.

Expenditure of state includes three components viz revenue expenditure, capital expenditure and expenditure on loan disbursements. Both development and non-development expenditures are included in revenue expenditure. Education, health, agriculture, and animal husbandry, as well as industries, labour, and employment, are all examples of development expenditures. Non-development expenditure comprises interest payment, pension payment, debt charges, administrative services, and others. Since most of the state spending on human capital is classified as revenue spending, capital spending has traditionally been little. Nonetheless, the Kerala government is committed to infrastructural development in the state and has implemented innovative funding approaches to assist large infrastructural projects for the state's long-term economic development.

The share of revenue expenditure in total expenditure has increased over the years from 83.6 per cent in 1990-91 to a peak of 90.33 per cent in 2000-01 and then declined to 86.43 per cent in 2016-17. Simultaneously, the share of capital expenditure and capital outlay declined over the years. However, starting from 2005-06, the share of capital expenditure and capital outlay in Kerala’s total expenditure has witnessed an upward trend against the downward trend earlier. The capital outlay has increased notably from 4 per cent in 2005-06 to 9 per cent in 2020-21. The fact that only a very small portion of the state’s overall budgetary resources are allotted for capital formation does not promise welfare for the state economy as it is this expenditure that affects the growth process in an economy.

Table 3.2. Composition of Total Expenditure of Kerala

(In Crore rupees)

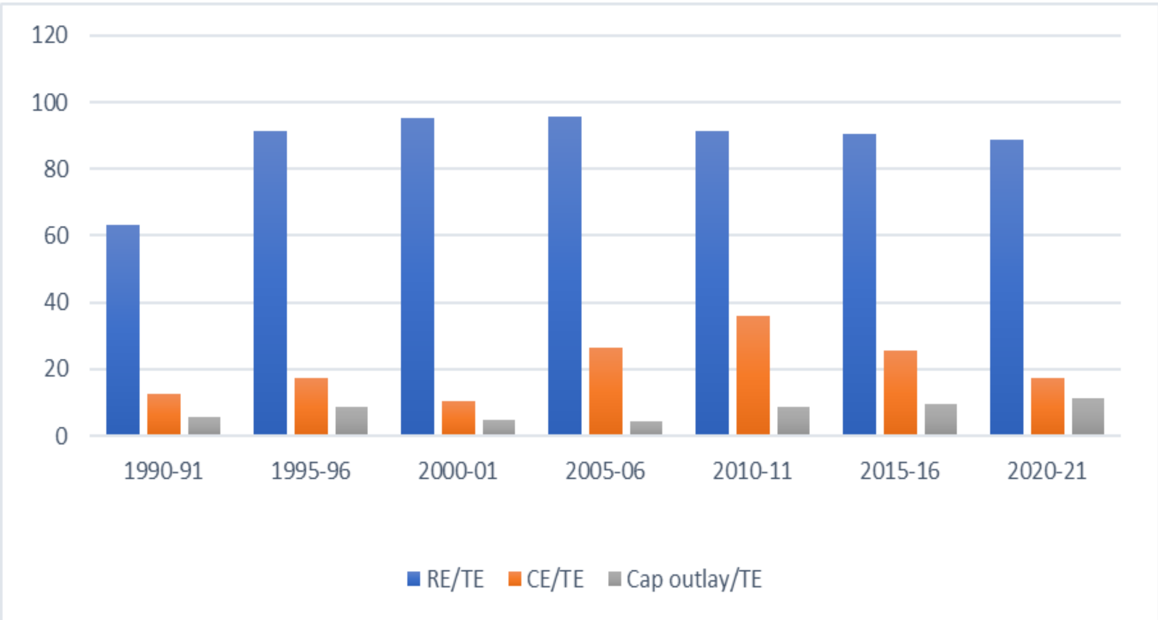
	Revenue Expenditure	Capital Expenditure	Capital Outlay	RE/TE	Cap outlay/TE	CE/TE
1990-91	2824.95	551.5	255.96	63.29	5.73	12.35
1991-92	3216.45	788.69	286.12	61.21	5.44	15.01
1995-96	5826.37	1095.5	563.46	91.18	8.81	17.14
2000-01	11878	1271	577	95.36	4.63	10.20
2005-06	18424	5042.558	817	95.75	4.24	26.20
2010-11	34665	13643.41	3364	91.15	8.84	35.87
2015-16	78689	22427.87	8342	90.41	9.58	25.76
2020-21	123446	23781.1	15438	88.88	11.11	17.12

Note: RE – Revenue Expenditure, CO – Capital Outlay, CE – Capital Expenditure, TE – Total Expenditure

Source: State Finances: A Study of Budgets, Reserve Bank of India, 1990-91 to 2020-21, Mumbai

Table 3.2 presents the overall pattern of expenditure in Kerala from 1990-91 onwards. The table also presents the ratio of the components of expenditure to total expenditure. The values reveal that the rise in spending is the result of the constant increase in revenue spending, which has seriously disturbed the state's fiscal system. The data on the composition of total expenditure shows that the proportion of revenue expenditure to capital expenditure remained much higher throughout all periods.

Figure 3.1. Share of the Components of Total Expenditure



Source: State Finances: A Study of Budgets, Reserve Bank of India, 1990-91 to 2020-21, Mumbai

Up until 1990–1991 total expenditures accounted for 77 per cent of revenue expenditures, which means that just 23 per cent of them are capital expenditures. Revenue expenditure grew to 94 per cent in the subsequent periods demonstrating a rising trend in expenditures. The trend of capital expenditure and capital outlay has shown a steep decline till 2005-06. Even when the total expenditure recorded an average annual growth of 13.91 per cent during this period, capital expenditure crawled at a rate of only 3.96 per cent.

Perhaps the most unsettling aspect of Kerala's state finances is the fall in capital outlay despite an increase in higher borrowing. Because reducing capital spending as a short-term budgetary corrective strategy has an impact on long-term capital formation. The pattern indicates that a disproportionately big share of borrowed money is going into revenue expenditures rather than capital ones. The capital expenditure, which includes direct state government spending on capital projects as well as investments in public sector undertakings, joint ventures, cooperatives, and in rare instances, private sector companies, is also on the fall as a share of state income but has made recorded an improvement since 2005-06. The increase in capital expenditure of the State from 2005-06 to 2015-16 needs to be examined by the nature of the increase and the changing structure of various components of capital expenditure to understand what has accounted for this increase since capital outlay did not record a similar increase. More than half of the total capital outlay was accounted for ‘Roads and Bridges’ with 52 per cent of the total allocation, followed by telecommunication and industries with 9.4 per cent and major and medium irrigation with 8.62 per cent. The rest of the capital outlay was spent under various other heads and major departments like public works, education, medical and public health, the welfare of Scheduled Castes, Scheduled Tribes and Other Backward Castes etc. Over the last few years, the percentage of public expenditure on capital projects in various industries has risen. In 2020-21 the capital outlay-to-gross domestic product rate has risen considerably from 1.03 per cent in 2019-20 to 1.61 per cent in 2020-21. With 22.35 per cent of total capital outlay in 2020-21, Public Works remained the largest element of capital outlay, followed by Industries and Labor at 3.77 per cent, Agriculture and allied activities at 3.61 per cent, and Irrigation at 2.34 per cent.

In 2017-18 and 2018-19, even though the per cent share of capital outlay in GSDP was only 1.25 and 0.95 respectively, public works continued to remain the major segment of capital outlay with 26.92 per cent of the total capital outlay in 2018-19 followed by, agriculture and allied activities (7.32 per cent), Industries and Labour (3.72 per cent) and Irrigation (3.66 per cent).

However, one notable difference is that in Kerala, over the years, the share of current expenditure was high and capital outlay was low comparatively. The key reason for the high share of revenue expenditure in Kerala has been the larger expenditure commitment on two revenue expenditure heads namely salaries and pensions and interest payments.

Table 3.3 State Expenditure and its Components (As a proportion of GSDP)

Expenditure	**1990-91**	**2000-01**	**2010-11**	**2020-21**
Total expenditure	31.65	17.14	11.71	17.36
Revenue Expenditure	20.03	16.34	10.68	15.43
Capital Expenditure	3.91	1.74	4.20	2.97
Capital Outlay	1.81	0.79	1.03	1.93

Source: State Finances: A Study of Budgets, Reserve Bank of India, 1990-91 to 2020-21, Mumbai

The total public expenditure of Kerala has declined from 31.65 per cent of GSDP during 1990-91 to 17.36 per cent in 2020-21. The drop in the total expenditure in Kerala was caused by a decline in both revenue expenditure and capital expenditure. Moreover, the capital expenditure and outlay incurred in Kerala during the accelerated economic growth phase were the lowest among the comparable states. However, starting from 2005-06, the share of capital expenditure and capital outlay in Kerala's total expenditure has witnessed an upward trend against the downward trend earlier. As a percentage of GSDP as well, capital outlay increased from 0.79 per cent in 2000-01 to 1.03 per cent in 2010-11. The decline in the expenditure as a percentage of GSDP can be associated with the implementation of the FRBM Act in 2003. The capital expenditure as per cent of GSDP during 2011-12 to 2018-19 varied between 0.98 per cent in 2014-15 to 1.78 per cent in 2016-17. In absolute terms, negative growth numbers were registered in 2014-15 and 2017-18 over the preceding years.

Table 3.4 Period-wise Average Growth Rate of Revenue, Capital and Total Expenditure

(Figures in percentages)

Periods	Revenue expenditure	Capital expenditure	Total expenditure
1990-91 to 1994-95	15.74	14.45	17.65
1995-96 to 1999-00	18.04	9.78	9.38
2000-01 to 2004-05	8.64	25.52	8.62
2005-06 to 2009-10	12.71	11.67	12.32
2010-11 to 2014-15	18.40	9.80	19.47
2015-16 to 2020-21	9.72	3.70	10.18

Source: Computed from Kerala Economic Review, Government of Kerala, State Planning Board, (2000, 2005, 2010, 2021), Thiruvananthapuram

Table 3.4 helps to infer that the total expenditure of the State increased drastically during the period from 2010-11 to 2014-15 than the previous periods. Very interestingly this increase is not due to a high increase in capital expenditure but due to the revenue expenditure marking double the growth of capital expenditure. The average annual growth rate in the revenue expenditure from 2012-13 to 2018-19, a period of seven years, was 13.34 per cent. The revenue expenditure expanded without considering the increase in revenue receipts since the revenue receipts only increased by 10 per cent in the same period. In the period from 2005-06 to 2009-10, capital expenditure recorded a steep increase in the average growth rate but the resultant increase in total expenditure was not very high. During the 2010-11 to 2014-15 periods, there is not much creation of assets than the previous years. The expenditure incurred was mainly covered by revenue expenditure. The revenue expenditure of the State during the 2010-11 to 2014-15 period has increased tremendously. The figures imply that the trend of total expenditure is heavily controlled by revenue expenditure.

The low growth of capital expenditure owing to lower growth in revenue receipts or due to overrun in revenue expenditure and at times a combination of both is an unhealthy trend of the State finance. The capital expenditure is constrained as a residuary item after meeting all the committed payments and repayment of loans. The period during which there was robust growth in revenue receipts or reduced growth in revenue expenditure thus came to show increased growth in capital expenditure.

A look at the expenditure values of the state attests to the predominance of revenue expenditure all throughout the years. Subsequently, the following discussion is centred on the revenue expenditure of the State to fulfil the purpose of analysing the pattern of public expenditure.

3.4 Trends of Revenue Expenditure

With revenue expenditure taking up the major chunk of total expenditure, it is pertinent that the pattern of revenue expenditure and its quality be examined. The quality of expenditure is also reflected through an examination of the expenditure from the development and non-development purview. The development expenditure of a state is mostly incurred for agriculture, social and development services, education, medical and public health, irrigation and public works. The non-development expenditures are incurred under the heads of interest charges, administration, police and vigilance.

Development spending includes both social and economic service costs. Development spending also includes money given to LSGIs for asset management, development, and expansion. The emphasis on social and economic spending has helped to keep the state's human development indices at a high level, which eventually affects the economy's long-term ambitions. The growing trend in development spending over the last few years is a glaring indication of the State Government's concern for social and economic services in the State. The State's committed expenditure, which consists of administrative costs, debt service payments, and pension costs, is non-developmental.

Table 3.5 Share of Development and Non-Development Expenditure in Revenue Expenditure

(In rupees crores)

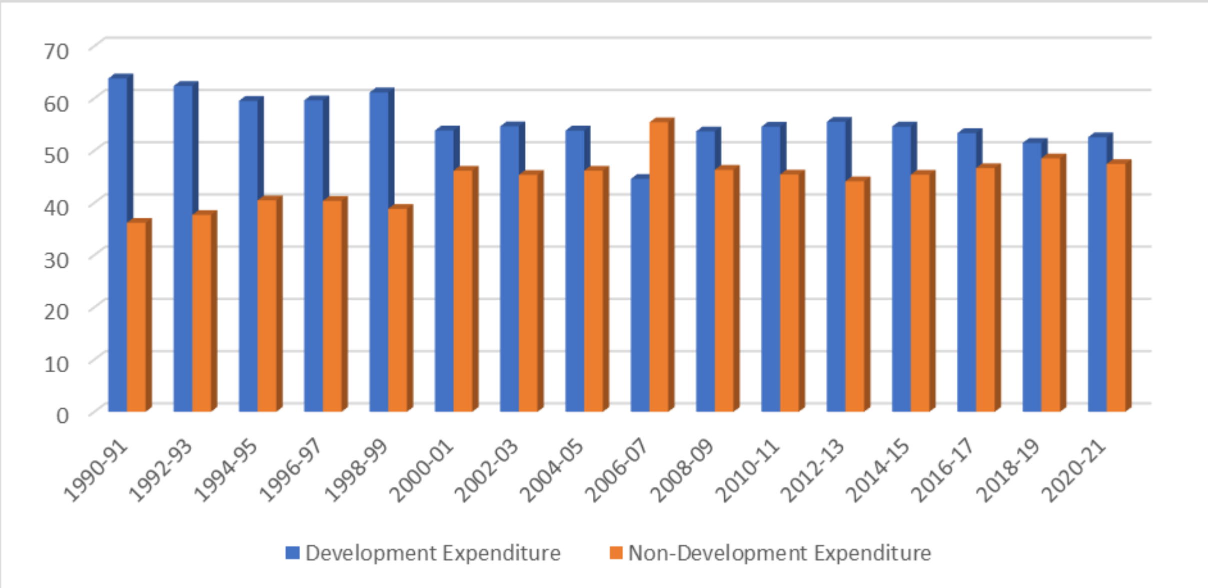
Year	Development Expenditure	Non-development Expenditure
1990-91	1802.6 (63.81)	990.05 (36.19)
1992-93	2280.6 (62.38)	1335.61 (37.68)
1994-95	3015.38 (59.52)	1985.7 (40.48)
1996-97	4047.96 (59.63)	2623.85 (40.37)
1998-99	5642.03 (61.14)	3535.87 (38.86)
2000-01	6366.45 (53.85)	5456.42 (46.15)
2002-03	8019.96 (54.65)	6599.94 (45.35)
2004-05	9186.25 (53.84)	7985.8 (46.16)
2006-07	9190.13 (44.58)	9723.14 (55.42)
2008-09	13291.38 (53.68)	12667.38 (46.32)
2010-11	16468.25 (54.58)	15418.39 (45.42)
2012-13	26685.91 (55.51)	22786.61 (44.12)
2014-15	33915.68 (54.61)	31432.75 (45.39)
2016-17	44420.07 (53.35)	41195.33 (46.65)
2018-19	50590.54 (51.48)	50827.13 (48.52)
2020-21	60366.58 (52.55)	59712.41 (47.45)

Note: The figures in the parenthesis represent the share of development and non-development expenditure in revenue expenditure

Source: Kerala Economic Review, Government of Kerala, State Planning Board, (2000, 2005, 2010, 2021), Thiruvananthapuram

When dividing revenue expenditure into developmental and non-developmental categories, it is found that non-developmental expenditures account for a sizable share of the state government's overall revenue expenditure. The amount of revenue used on development expenses has decreased from roughly 68 per cent in the early years to around 52 per cent in the most recent stage, demonstrating the degree of the rise in non-developmental expenses, which account for about 48 per cent of total expenditures during that time. When the growth rate of total revenue expenditures is examined, it becomes evident that the three primary expenditure items; debt services, pensions, and salaries have the highest growth rates overall. Only these three expenditures account for about 58 per cent of overall spending and 67 per cent of total revenue spending.

Figure 3.2: Trends of Revenue Expenditure



Source: Kerala Economic Review, Government of Kerala, State Planning Board (2000, 2005, 2010, 2021), Thiruvananthapuram

The share of developmental expenditure in total revenue expenditure marginally improved to 54.58% in 2010-11 from 53.43% in 2009-10. Since 2010–11, there has been a sustained improvement in the proportion of developmental expenditure to overall revenue expenditure. The share of development expenses in revenue expenditures in 2010–11 was 54.58 per cent. In 2011–12, this ratio rose to

55.33 per cent, and in 2012–13, it further grew to 56.95 per cent. It can be seen that development expenditure has maintained a share of 50 to 55 per cent in total revenue expenditure over the past decade with an exception in 2019-20.

In 1991–1992, the committed expenditure, which included debt service, pension payment, and administrative service costs, made up 27.4 per cent of overall expenditures. This percentage rose to 37.15 per cent in 2002–2003, and to 42.76 per cent in 2013–2014. More than three and a half times as much money is spent on income as interest payments have increased. This results in excessive reliance on short-term, high-cost borrowing and medium-term loans by the state to pay off its overdraft liabilities, but since 2004, the central government's debt swap policies have had a negative influence on the annual average growth rate of the state.

Table 3.6 Components of Development Expenditure

(In Rupees crore)

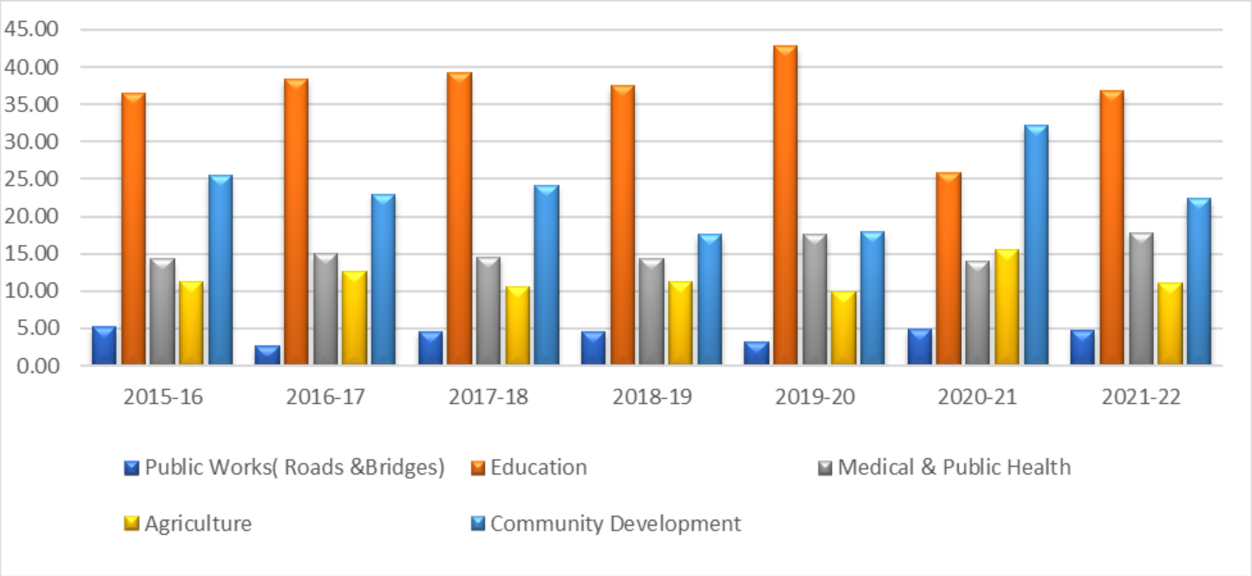
	Education	Medical & Public Health	Agriculture	Community Development	Public Works
2015-16	14120.05 (36.48)	5524.67 (14.28)	4380.34 (11.32)	9862.80 (25.48)	2010.30 (5.19)
2016-17	17061.09 (38.41)	6662.02 (15.00)	5569.15 (12.54)	10204.75 (22.97)	1182.63 (2.66)
2017-18	18514.86 (39.20)	6872.01 (14.55)	5007.27 (10.60)	11427.62 (24.20)	2168.60 (4.59)
2018-19	18968.26 (37.49)	7261.34 (14.35)	5663.08 (11.19)	8890.17 (17.57)	2343.77 (4.63)
2019-20	18459.63 (42.78)	7628.81 (17.68)	4274.53 (9.91)	7738.19 (17.93)	1404.90 (3.26)
2020-21	16475.69 (25.91)	8893.10 (13.98)	9840.71 (15.47)	20463.48 (32.18)	3103.31 (4.88)
2021-22	24988.75 (36.76)	12134.02 (17.85)	7559.71 (11.12)	15187.58 (22.34)	3267.11 (4.81)

Note: Figures in parentheses represent the share of the components in development expenditure

Source: Budget in Brief, Government of Kerala, State Planning Board, 2022, Thiruvananthapuram

A look into the major components of development expenditure emphasise the dominance of the education sector in the utilisation of funds in Kerala. This composition of the development expenditure is reflective of the welfare policies that the State has come to follow over the years.

Figure 3.3 Trends of Development Expenditure in Kerala



Source: Budget in Brief, Government of Kerala, State Planning Board, 2022 Thiruvananthapuram

Education has always occupied the major share of development expenditure in Kerala. Over the past five years, there has been a noticeable increase in investment in education, along with a change in the source and distribution of funds. Local bodies now account for the majority of government spending on education, moving away from line departments. From Rs. 387.95 crores in 2016–17 to Rs. 1023.38 crores in 2021–22, the Local Government Plan for school education has increased (Kerala Development Report 2021). Local Governments fund the State portion of federally funded education programmes like Sarva Siksha Abhiyan (SSA). The increase in expenditure for community development and medical and public health increased for 2020-21 in the wake of the pandemic with community development recording a rapid increase.

Table 3.7 Components of Non-Development Revenue Expenditure

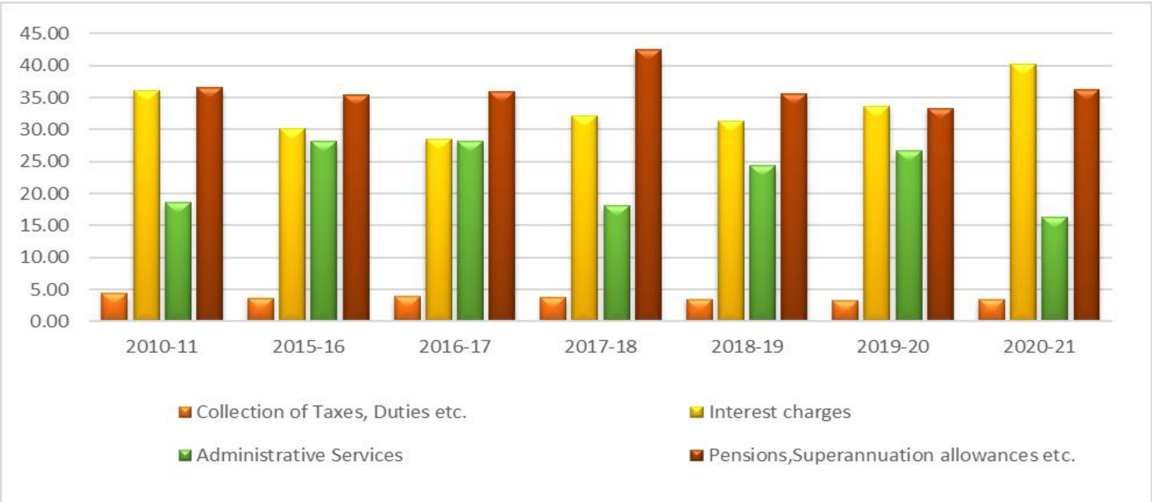
(In Rupees Crores)

Year	Collection of Taxes	Interest charges	Administrative Services	Pensions
2015-16	1361.24 (3.69)	11110.62 (30.09)	10423.78 (28.23)	13062.86 (35.38)
2016-17	1651.58 (3.89)	12116.50 (28.51)	11990.71 (28.22)	15277.03 (35.95)
2017-18	1792.10 (3.82)	15119.93 (32.19)	8516.88 (18.13)	19938.41 (42.45)
2018-19	1868.67 (3.49)	16747.92 (31.29)	13043.83 (24.37)	19011.94 (35.52)
2019-20	1866.02 (3.26)	19214.70 (33.61)	15223.03 (26.63)	19064.29 (33.35)
2020-21	1774.35 (3.40)	20975.36 (40.16)	8538.60 (16.35)	18942.85 (36.26)
2021-22	2596.24 (3.50)	22115.41 (29.81)	20266.28 (27.32)	26959.22 (36.34)

Note: Figures in parentheses represent the components as a percentage of non-development expenditure

Source: Budget in Brief, Government of Kerala, State Planning Board, 2022, Thiruvananthapuram

Figure 3.4 Trends of Non-Development Expenditure



Source: Budget in Brief, Government of Kerala, State Planning Board, 2022, Thiruvananthapuram

Over 35 per cent of the total revenue expenditure is made up of expenditure which includes interest payments, pensions, and administrative costs. As a result, there is little money left over for spending on development. Consequently, a very little portion of spending goes into development. Welfare pensions have increased over the past five years, going from 600 per recipient in 2016 to 1,600 per beneficiary in 2021. In the State as of 2021, there were 51.35 lakh pensioners, 32 lakhs of whom were female recipients. Additionally, various Welfare Fund Boards are responsible for distributing welfare pensions. 17.2 lakh recipients received a share of Rs. 951 crores in 2020–21. Police and Vigilance constitute a significant proportion of administrative expenditure. It should be highlighted that even though public employees make up a small portion of the population, 44% of overall spending goes to their pensions and salaries.

Over the years Kerala has been spending more on social services than economic services. The total expenditure on social and economic services (both excluding and including loans and advances) as a percentage of GSDP has declined significantly in Kerala over the years. The expenditure on social services includes expenditure on education, health care facilities, family welfare, housing and sanitisation. Whereas expenditure on agriculture and allied activities, crop husbandry, soil and water conservation, dairy, fisheries etc come under economic services.

Even during the state's severe fiscal crisis in 1986–1987, social sector spending increased to a high level, but the latter trend has remained about the same at around 31% of total spending. However, there has been a trend toward lessening spending on health and education overall. In the last stage, education spending declined from nearly 23 per cent of overall spending in the mid-1990s to 18 per cent, while pension spending climbed from 6 per cent of total spending to almost 16 per cent.

Table 3.8. Expenditure on Social, Economic and General Services as a percentage of Total Expenditure

(In Rupees Crores)

Year	Social Services	Economic Services	General Services	SS/TE	ES/TE	GS/TE
1990-91	1312.97	545.99	997.65	31.08	12.92	23.62
1995-96	2379.53	1148.74	2362.53	24.04	11.61	23.87
2000-01	4245.91	2226.11	5495.85	20.86	10.94	27.00
2005-06	6029.30	4385.86	8825.48	20.46	14.89	29.95
2010-11	12590.03	7123.36	1576.58	16.58	9.38	2.08
2015-16	28638.32	17306.82	36341.20	17.67	10.68	22.42
2020-21	47110.34	29112.63	50620.56	18.19	11.24	19.55

Note: SS – Social Services, ES – Economic Services, GS – General Services, TE – Total Expenditure, Ratios presented in percentages

Source: State Finances: A Study of Budgets, Reserve Bank of India, 1990-91 to 2020-21, Mumbai

The expenditure on social services in Kerala has declined from the peak of 31.08 per cent of total expenditure in 1990-91 to 20 per cent in 2000-01 and is at only 18.19 per cent in 2020-21. In the case of economic services, the same has declined from 12.92 per cent in 1990-91 to 10.94 per cent in 2000-01 and is at 11.24 per cent in 2020-21, without drastic variations. However, since the second half of the last decade, the expenditure on social services has increased in Kerala as a percentage of total expenditure. The worrisome trend visible is the share of general services, a non-development expenditure, which has maintained its share with no major variations.

An analysis of expenditure incurred on the provision of social and economic services during the various economic growth regimes reveals that, on average, expenditure on social and economic services had declined as a percentage of total expenditure in Kerala. The decline in these development expenditures and the increase in non-development expenditures throw light on the inefficiency of expenditure management. The expenditure on economic services has been far less than that on social services. More importantly, the drop in the expenditure on social and economic services was larger during the phase of accelerated economic growth in Kerala. And the decline in the expenditure on social services was caused by a decline in both revenue expenditure and expenditure on capital formation. The decline in the expenditure on economic services in Kerala was caused by the decline in revenue expenditure, capital expenditure and capital outlay. Over the years, public spending on education in Kerala has been one of the highest among the states. However, on account of increasing fiscal stress, the share of public expenditure on education has come down. Alarmingly, except transport and communications (under economic services), the total expenditure on all the other individual heads namely education, public health, housing (all under social services), agriculture and allied activities, irrigation, industry and minerals (all under economic services) has declined in Kerala during the phase of accelerated economic growth compared with the period of moderate economic growth. The decline in public expenditure under these heads was caused by the fall in all the components of expenditure namely revenue expenditure, capital expenditure and capital outlay.

In addition to the reduced significance of allocation on social and economic services, another distressing feature of the expenditure pattern in Kerala has been the disproportionately larger amounts spent on current expenditures like wages and salaries, subsidies and other transfers within the social and economic services. Consequently, budgetary resources allotted for the maintenance of capital assets and the creation of new assets within such essential services have declined over time.

Table 3.9. Composition of Expenditure on Social Services

(Figures in percentages)

Year	Revenue Expenditure	Capital Expenditure
1990-91	97.32	2.68
1995-96	97.10	2.90
2000-01	98.64	1.36
2005-06	97.80	2.20
2010-11	96.19	3.81
2015-16	96.39	3.61
2020-21	95.16	4.84

Source: State Finances: A Study of Budgets, Reserve Bank of India, 1990-91 to 2020-21, Mumbai

The table shows the revenue expenditure and capital expenditure components of states' allocation to social services. Current expenditures constituted over 90 per cent of expenditures on social services in Kerala from 1990-91. On the other hand, the share of capital expenditure on social services was not only small but also declined consistently. However, starting from 2000-01 the state witnessed an upward movement in the share of capital expenditure on social services owing to the reasons mentioned above. The share of capital expenditure in social services now stands at 4.84. Compared to social services, the quality of expenditure is better in the case of economic services in the sense that capital expenditure on economic services was much higher than on social services in Kerala. However, until the mid-2000s, the share of capital outlay on economic services was falling consistently in Kerala. Since the mid-2000s, the share of capital outlay on economic services has increased notably in Kerala from 14 per cent of total expenditure on economic services in 2005-06 to 35.56 per cent in 2020-21.

Table 3.10. Composition of Expenditure on Economic Services

(Figures in percentages)

Year	Revenue Expenditure	Capital Expenditure
1990-91	96.13	3.87
1995-96	95.90	4.10
2000-01	97.84	2.16
2005-06	86.00	14.00
2010-11	61.17	38.83
2015-16	64.13	35.87
2020-21	64.44	35.56

Source: State Finances: A Study of Budgets, Reserve Bank of India, 1990-91 to 2020-21, Mumbai

The high revenue expenditure for both social services and economic services are accounted for by the committed expenditures of the state, salary, pension, interest payment and subsidy. The root cause for continuous revenue deficit and instability in the finances of the state arises due to the excess expenditure on these items. Due to this situation, the state government faces an acute resource crunch to meet development expenditures in core areas of infrastructure, public utilities and public services.

The revenue expenditure of the State is mainly comprised of expenditure on salaries, pensions, debt charges, devolutions to the Local Self Government and Subsidies. The operational and maintenance cost for the upkeep of the completed projects and programmes are classified under the revenue account. Grants provided by the State to meet the salaries and pension liabilities of employees in the Universities and State autonomous bodies and the pension liabilities of employees of Panchayat Raj Institutions are classified under revenue expenditure.

Table No. 3.11. Share of Committed Expenditures on Revenue Expenditure and Revenue Receipts

(Figures in percentages)

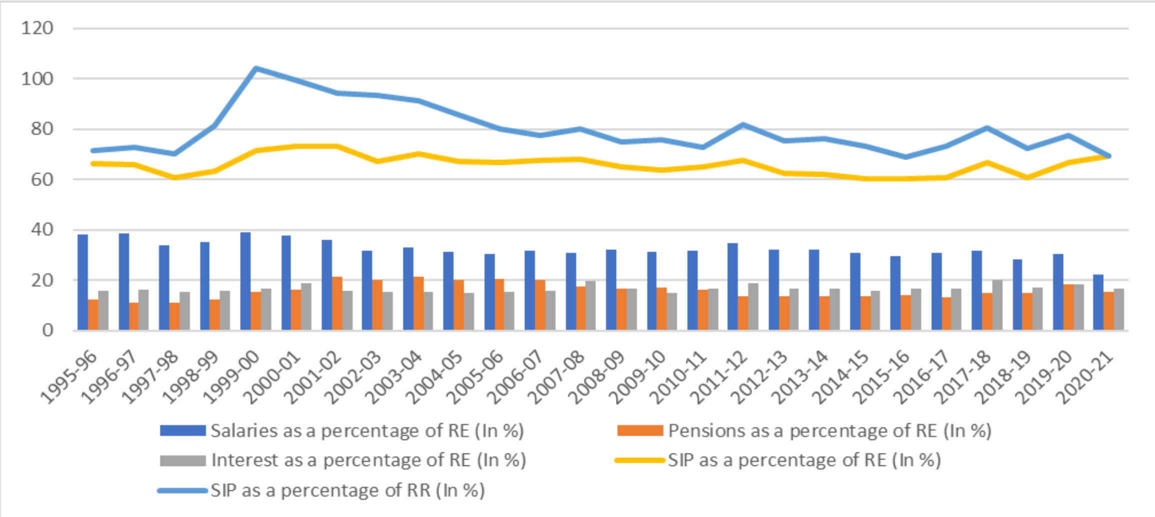
Year	Salaries as a percentage of RE	Pensions as a percentage of RE	Interest as a percentage of RE	SIP as a percentage of RE	SIP as a percentage of RR
1995-96	38.3	12.3	15.9	66.4	71.5
2000-01	37.8	16.2	19	73.1	99.4
2005-06	30.4	20.6	15.5	66.6	80.2
2010-11	31.9	16.4	16.6	65	72.68
2015-16	29.8	14.12	16.6	60.52	68.99
2020-21	22.46	15.35	16.84	69.13	69.3

Note: SIP – Salary, Interest, Pension, RE – Revenue Expenditure. Since data before 1995-96 was not available, the period considered is 1995-96 to 2020-21.

Source: Kerala Economic Review and Budget in Brief, Government of Kerala, State Planning Board (2000, 2005, 2010, 2021), Thiruvananthapuram

The high revenue expenditure is due to the committed expenditure such as Salaries, Interest and Pensions. They together inflict a heavy burden on the state treasury. The weight of the committed expenditure falls heavy on the government that, they have to divert funds from development services. Consequently, expenditures of state priority such as expenditures on education, health, agriculture, irrigation, public work, industry, employment, transport and child development are compromised. The welfare policies followed, and the compelling preponderance of social and community services implies that the cost of salaries and pensions will be quite high. This makes up the lion's part of Kerala's public spending, together with interest payments. The following figure shows the revenue expenditure of the State over 26 years.

Figure 3.5. Share of Committed Expenditures on Revenue Expenditure and Revenue Receipts



Source: Kerala Economic Review Budget in Brief, Government of Kerala, State Planning Board (2000, 2005, 2010, 2021), Thiruvananthapuram

Figure 3.6 shows the revenue expenditure incurred for the committed expenditure. The implementation of the FRBM Act has been severely constrained in the State owing to interest payments and other committed expenditures. More than 60 per cent of revenue expenditure every year was for salaries, interest and pensions. The other development expenditures incurred only less than 35 per cent of revenue expenditure. Moreover, a component of revenue expenditure, Salaries, made up for more than 30 per cent of revenue expenditure every year in the State. In 1999-00, the weight of committed expenditure on revenue receipts was a whopping 104 per cent due to the pay revision of State employees according to the Fifth Central Pay revision.

In the year 2001-02, 94.2 per cent of the total revenue receipts had to be utilized for the payment of salaries, interest and pension. During the period from 1993-94 to 2001-02, the growth in these expenditures was 14.01 per cent while the growth in total revenue receipts during the same period was only 11.03 per cent. However, even though, the share of salaries in total revenue expenditure which declined till 2004-05 the trend reversed in the subsequent years with the salary scale revisions recommended by the Sixth Pay Revision Commission of Kerala in March 2006. The undue dependence of the State on short-term high-cost borrowings and medium-term loans to clear its overdraft liabilities have added up the interest obligations. With high-interest payment obligations causing tremendous pressure on the economy during the period, the state was able to contain the mounting interest burden due to the debt swapping of high cost loans from the National Cooperative Development Corporation, National Bank for Agriculture and Rural Development and Government of India. The revision in salary scales as per the orders of the Sixth Pay Revision Commission reversed this declining trend in salaries and pensions. The pension bill in Kerala is very high and the stock of pensioners was as high as seventy per cent of the size of the serving staff and summed up to 459,289 by the end of 2005-06.

According to the revenue expenditure profile for 2006-07 and its components, the rise in revenue expenditure was attributed to an increase in pay and pension growth. The huge surge in salary expenditure during those years, however, was not unique to Kerala. This was seen in many other states because of pay revisions that resulted in compensation increases in accordance with the Fifth Central Pay Commission's recommendations. During 2006-07 and 2007-08, salary expenditure increased by 17%.

The growth of interest payment was 3.3 per cent in the year 2007-08 over the previous year. The share of interest payment in total revenue expenditure also declined sharply from more than 20 per cent in 2006-07 to 17.4 per cent in 2007-08. Although this meant the release of fiscal space for other expenditures, the increase in salary and pension in turn absorbed this fiscal space. However, even though, Kerala had a very high incidence of committed expenditures, viz., interest payment, salaries and pension, the combined share of these three in total expenditure was declining over the years.

During 2010-11, salaries to government staff, teaching grants to private educational institutions and pensions to both categories accounted for 43 per cent of the total revenue expenditure. Interests and other subsidies constituted another 16.28 per cent. Thus, nearly 58 per cent of the revenue expenditure was spent on salaries to government staff, teaching grants, pensions and interest. The root cause for continued revenue deficit and instability in the finances of the state arises due to the excess expenditure on these items.

Due to the announced changes, salary and pension expenditures climbed significantly in 2011-12. Arrear liabilities on pay and pension revisions from 2009-10 and 2010-11 were similarly covered in 2010-11. As a result, wage and pension expenditures increased by 45.3 and 50.8 per cent in 2011-12 over 2010-11, respectively. About the trends in salary, interest and pension payments during the period, 2011-12 to 2015-16 their combined share in revenue expenditure declined and the same was lowest at 59.14 per cent in 2014-15. This ratio was as high as 67.49 per cent during 2011-12, the year in which pay and pension arrears were disbursed on implementation of the Ninth Pay Commission recommendations. Despite the decline, Kerala reported the highest figures among all states for pension payments as a proportion of revenue expenditure in 2014-15. The increasing subsidy bill also caused a major financial burden on the state government. Total subsidy increased by Rs.357.96 crore between 2011-12 and 2015-16. This increase was primarily on account of the rising food subsidy bill which not just constituted the highest share of the total subsidy bill but also grew at a fast pace over these years.

For the year 2018-19, salaries registered a negative growth of -1.25 per cent over the growth of 13.77 per cent in 2017-18. The growth of interest payments also fell below the average of 15.10 per cent. The growth in respect of pension too was negative at -4.65 per cent as compared to 30.51 per cent in 2017-18. The negative growth of salary and pension was owing to the staggering pay commission awards in the previous two years. As regards the payment of subsidies, it may be noted that, after registering a peak of Rs1730.68 crore in 2016-17, it came down to Rs

1583.84 crore in 2017-18. For the year 2018-19, it increased to Rs 1663.01 crore but was below the peak recorded in the year 2016-17. The containment of subsidy payments is a welcome development. The main reason for the increase in salaries, interest and pensions in 2017-18 was the distribution of the third and fourth instalments of the arrears of the 10th pay revision and pension revision.

Today, they constitute around 56 per cent of the state's revenue expenditure. More importantly, as a percentage of revenue expenditure, Kerala had the highest salary and pension burden among the comparable states since the beginning of this decade. However, the silver lining is that both as a percentage of revenue expenditure and revenue receipts the expenditure on salaries and pensions in Kerala has declined significantly over the years. Another notable trend has been the fall in interest payment liabilities in Kerala.

Besides the burden of committed expenditures eating up the state treasury, the state also shoulders the weight of large subsidy bills. The subsidies consume a large share of the state's expenditure.

3.4.1 Subsidies

The government provides subsidies in the areas of production, market intervention, and relief. Extending subsidies to boost output and productivity has some logic. Production subsidies include those given for making movies, as well as credits for agriculture production, farming, irrigation, dewatering kayal for cultivation, poultry development, fisheries, handloom, and khadi industries. In the interests of the producers and the output, it makes sense to provide subsidies. It is necessary to provide subsidies for market intervention and price stabilisation when a state experiences a persistent shortage of food grains and other food products.

Social services make up more than 70 per cent of the overall subsidy. This indicates that the relative subsidy share in economic services is low. The recovery rate has decreased over the past ten years for both programmes. Kerala is third overall among the south Indian states in terms of subsidies, although it has the lowest overall recovery rate.

In Kerala, all income classes are eligible for subsidies. Although the more disadvantaged groups receive reduced tuition costs at educational institutions and lower service fees at government hospitals, the wealthy nevertheless receive subsidies. Subsidies for higher education, especially for professional programmes, are heavily weighted in favour of the wealthier segments of society. A growing number of the upper middle class and wealthy people now rely on private providers for services like health and education hinting at the lack of faith and acceptance of governmental services.

Table 3.12 Growth in Expenditure on Subsidies

(In Rupees Crores)

Year	Amount of Subsidy	Growth
2006-07	23.36	
2007-08	201.66	763.27
2008-09	354.86	75.97
2009-10	441.8	24.50
2010-11	626.8	41.87
2011-12	1011.43	61.36
2012-13	1267.18	25.29
2013-14	1278.98	0.93
2014-15	1252.51	-2.07
2015-16	1372.39	9.57
2016-17	1730.67	26.11
2017-18	1583.84	-8.48
2018-19	1663.01	5.00
2019-20	1429	-14.07
2020-21	6547.48	358.19

Note: Data from 2006-07 were only considered since detailed data before 2006-07 were not available, Growth values are given in percentages.

Source: State Finance Accounts Vol II, Comptroller &Auditor General, Government of India, 2006-2021

The amount spent on subsidies increased by 763 per cent between 2006–07 and 2007–08. The quantity of subsidies continues to rise in the succeeding years as well. The payment of subsidies peaked at Rs. 1730.68 crores in 2016–17 and decreased to Rs. 1583.84 crores in 2017–18. It grew to Rs. 1663.01 crores in the

2018–19 fiscal year, however, that figure fell short of the peak seen in 2016–17. The amount spent on subsidies in 2017–18 decreased by Rs 156.84 crore. There has been no decrease in the payment of subsidies to account for this decrease in absolute amount. This is because overpayment of refunds is now being sent from the Special Treasury Savings Bank account back to the appropriate head. The reduction in subsidy payments is a positive development. The move to contain expenditure on account of subsidies was commendable. However, the expenditure in 2020-21 has erased all those efforts with a whopping 358.19 per cent growth in the expenditure. This drastic increase is reasoned to be due to the COVID-19 pandemic supports extended by the Government as per the report by the Reserve Bank of India. The subsidies incurred during the pandemic included food, sustenance expenditure and subsidies to industries, mainly the Micro, Small and Medium Enterprises. But this latest trend of rapid growth in subsidy provision was not unique to Kerala. All the states had increased expenditure on subsidies during the year with Chhattisgarh accounting for the largest increase in the proportion of subsidies.

Table 3.13 Trends in Subsidies Component of Revenue Expenditure

(In rupees crores)

	Amount of Subsidy	Food Subsidy	Food subsidy as a proportion of Total Subsidy (%)
2010-11	626.8	279.17	44.53
2011-12	1011.43	699.57	69.16
2012-13	1267.18	894.96	70.62
2013-14	1278.98	903	70.60
2014-15	1252.51	1026.57	81.96
2015-16	1372.39	1106.35	80.61
2016-17	1730.67	1492.15	86.21
2017-18	1583.84	1309.53	82.68
2018-19	1663.01	1346.7	80.97
2019-20	1429	1175.9	82.28
2020-21	6547.48	5943.9	90.78

Note: Food subsidy data available only from 2010-11

Source: State Finance Accounts Vol II, Comptroller &Auditor General, Government of India, 2010-2021

The State government's largest subsidy is to the food industry. Included in this were funds provided for market intervention to the Kerala State Civil Supplies Corporation. Subsidies also included parts for power, irrigation, tourism, and education. Between 2011–12 and 2015–16, the total subsidy increased by Rs. 357.96 crores. This increase was mostly caused by the rising cost of food subsidies, which not only made up the largest portion of the overall subsidy expenditure but also quickly increased each year throughout these years. Its percentage of the entire subsidy expenditure climbed from 69 per cent in 2011–12 to 81 per cent in 2015–16, a rise of more than 10 percentage points. During this time, the food subsidy's growth rate (58.15 per cent) likewise exceeded the total subsidy's growth rate (35.29 per cent). The food subsidy provided to distribute rice and wheat through the public distribution system is the main subsidy component. This uses up over 65 per cent of the subsidy. The second largest subsidy, accounting for 11 per cent of the total, is the buying of paddy from farmers. The Kerala State Civil Supplies Corporation receives a 5 per cent subsidy for market intervention, and an additional 5 per cent is provided for power rate reductions. Other purposes for which subsidies are provided include the operation of festival markets for cooperatives, the provision of free power to small and marginal farmers, the management of solid waste, and the promotion of fisheries. According to an assessment of the subsidies, roughly 73 per cent was used to intervene in the market and distribute food through the public distribution system at fair rates. However, the production incentives offered are paltry. It is undesirable to prioritise manufacturing too little compared to market intervention. The misappropriation and wasteful use of subsidies pose another problem. As per the Report of the Kerala Public Expenditure Review Committee 2011-12, the leakage, corruption and inefficient spending on subsidies accounted for nearly more than Rs. 1000 crores. The report also pointed out that the amounts reported by the government could be underestimated since the government was providing health, education and other services at very low rates.

Throughout the pandemic, the government made an effort to ensure that everyone had access to food and other necessities. All demographic groups received food kits from the state government. The main supply-side market interventions included giving consumers access to basic goods at reduced costs through cooperative institutions, Supply-Co, Consumer Fed, etc. The power of Local Self Government Institutions allowed for the organisation of Community Kitchens and the distribution of prepared food to everyone in need. In addition, the establishment of Janakeeya Hotels contributed to guaranteeing that all residents could afford food. Additionally, the State Government provides the Public Distribution System with significant budgetary support. In contrast to the Rs. 200.0 crores spent in 2019–20, Rs. 238.4 crores were spent on various cardholders as subsidies in 2020–21. In 2020–21, a total of 25.5 per cent of subsidies were given to holders of priority cards, while 45.5 per cent went to holders of non–priority cards. In comparison to the prior year, the amount spent on subsidies for holders of priority cards and non-priority cards increased by 9.7 per cent and 33.4 per cent, respectively.

The latest report, State Finances: A Risk Analysis, by the Reserve Bank of India, discusses the distribution of subsidies as freebies, which is public welfare scheme provided free of charge. These freebies benefit the less advantaged if they are implemented efficiently by plugging the leakage-causing gaps. However, the fiscal cost and the inefficiencies they cause due to distorting the prices and resource allocation are large. The state of Kerala has vowed to have such schemes for many years and more so in recent years. Free electricity has been provided by the Government for agricultural needs through Krishi Bhavan. The expenditure for free electricity for agriculture has increased from Rs. 3442.04 lakhs in 2017-18 to 5677.99 in 2020-21. The education sector also accounts for various programmes that involve free provisions. The provision of free uniforms and free textbooks are a few of them. The Aarogyakiranam programme by the State Government provides free treatment and related medical services to all patients till 18 years of age. Interest-free working capital to Theeramythri activity groups, interest-free loans in various sectors and free internet has also been added up to the list.

The provision of freebies has specifically increased in the past years to make up for the loss caused by the floods and the COVID-induced lockdowns. Various packages were announced by the State in the wake of COVID-19. The first economic program, totalling Rs. 20,000 crores were announced in 2020. The package included money for the payment of a seven-month welfare pension, Rs. 500 crores for health packages, Rs. 2,000 crores for loans through the Kudumbasree scheme, Rs. 2000 crore for village employment assurance programmes, Rs. 150 crores for providing relief at Rs. 1000 for BPL and Anthyodaya families who are not eligible for welfare pensions, Rs. 14,000 crores for clearing the arrears in various sectors, Rs. 100 crores for providing free ration to both APL and BPL families, and a total of Rs. 20,000 crores. Following the second wave, another economic package of Rs. 20,000 crores was announced in June 2021 to address the socioeconomic and medical problems brought on by the epidemic. The package included Rs. 2,800 crores for medical crises, Rs. 8,900 crores for immediate delivery to those experiencing a crisis owing to a loss of income, and Rs. 8,300 crores for interest subsidies for loans made available for economic revival. A supplemental package totalling Rs. 5,650 crore rupees was announced in July 2021 to support small businesses through subsidised loans and rate reductions for small business owners, particularly farmers and traders who were heavily hit by the Covid-19-induced economic crisis.

Through Kerala State Civil Supplies Corporation Ltd., the State Government offered free essential article kits to all ration card users in 2020 to help them cope with the effects of COVID-19. A kit, named Athijeevana Kit, with 17 items was provided to all ration card-holding households in the State. This was provided to a total of 84, 48,016 ration card holders as per the 2020 data. Additionally, the Kerala government offered an Onam package with 11 items in August 2020. In 2021, this distribution was continued. This is in addition to the qualifying beneficiaries' free ration delivery through Public Distribution System outlets. Over 11.0 crore food kits have been delivered so far in total.

For a welfare state such as Kerala, with the state reeling under the impact of the lockdowns, these schemes hold the utmost. However, the fiscal blow such expenditures cause on the state treasury is massive. According to statistics from the Department of Food and Civil Supplies, the state exchequer had to pay a total of Rs 2,845.79 crore to distribute the kits filled with necessities up to December 2020. An RTI response states that Rs. 16.03 crores were spent on packaging the products for the free food kits. According to the assessment, 13 rounds totalled 10.99 crore kits being distributed. The distribution cost Rs. 11.80 crores. A total of Rs. 4.23 crores was spent on distributing the kit during Onam 2021. The government had paid Rs. 1.40 for each kit to pack the items in cloth bags. It was increased to Rs 2 per kit as of May 2021. Thus, it was calculated that the entire cost of packing would be Rs. 18.96 crores. Rs. 107.18 crores were spent on buying cloth bags in total. The total cost incurred for transporting the food kits to the ration shops amounted to Rs. 19.78 crores. With all the expenses taken into account, the distribution of free food kits has lessened the state treasury by Rs. 131.91 crores.

3.5 Inferences

The evaluation of state public expenditure has thrown up the following inferences.

1. With the Revenue Account not being balanced as targeted in the KFR Act 2003, a debt contracted by the state is used for filling this imbalance resulting in the Capital Expenditure being a residuary item after meeting all other payments. This is the reason for the low and highly erratic trend in the growth of Capital Expenditure.
2. With the prime objectives of the FRBM Act is to follow the golden rule of eliminating revenue deficit and to spruce up capital expenditure to augment economic growth. The capital expenditure of the state is perched on a lower trajectory because of the rising revenue deficit. Almost all the revenue expenditures have attained the character of committed expenditure in the state. Both 2017-18 and 2018-19 have registered a reduction of capital expenditure in absolute terms.

The situation needs a reversal in the immediate future. Reduced capital expenditure can drag development down in the state and needs urgent attention from the government. One striking activity of the Government to increase capital spending is the undertakings started under Kerala Infrastructure Investment Fund Board. While some social sector projects with revenue expenditure characterisation are included in the current ventures because of their solid direction towards positive externalities, in the future it is expected that the projects so undertaken would be income generating.

Fiscal Responsibility Act 2003 and Kerala Fiscal Responsibility Rules 2005 brought about a change in the overall fiscal situation in the state. Total Revenue Expenditure that was ranging between 16 and 18 per cent of GSDP throughout the 1990s into the early 2000s was brought down by 3 percentage points to less than 14 per cent by 2005-06 and to below 13 per cent by 2009-10. Total Expenditure too was brought down by a small percentage point initially by maintaining Capital Expenditure at around 1.4 per cent of GSDP till 1998-99 and by reducing it since then.

3. The quality of expenditure focuses not only on the components of spending but on the outcomes. The above analysis points towards some scope of rationalising expenditure in general and revenue expenditure.
4. It is also worth noting that salary, pensions and interest have not increased drastically over the years. The committed expenditure of the State shows not much of an increase in these years.
5. From the expenditure side, one can infer that the deficit in State finances is not largely due to revenue expenditure even though it has influences on the deficit. But this influence is not huge enough to create drastic damage to the State of Kerala. The committed expenditure and other expenditures of the State have increased from the previous periods, but this increase is not large to consider a factor for the crisis.
6. By analyzing the expenditure side of the State, we can conclude that expenditure especially the revenue expenditure, within which committed

expenditure as a trend over the period, is not alarmingly increasing. Nevertheless, expenditure influences the fiscal problem of the State

7. A state's fiscal discipline is determined by how tax resources are mobilised and spent. With the above analysis of Kerala's public expenditure, revenue expenditure and revenue receipts, it can be concluded that the expenditure especially the revenue expenditure, within which committed expenditure as a trend over the period, though very high has not shown an increase in its share.

However, even after the trend of expenditure remaining more or less stable over the years the deterioration of state finances has been deep. This mounting fiscal crisis hence points to the insufficiency of the state revenue, particularly, tax revenue. This necessitates the importance of rigorous mobilisation of revenue.

In conclusion, the general trend indicates that relatively low spending for the production of physical capital is caused by the high-income component of development expenditure. As a result, regulating non-plan revenue expenditure and reducing non-reasonable revenue expenditure's growth-enhancing expenditure for productive channels should be prioritised on the expenditure side. To improve the quality of public spending, the government should direct public spending in a way that promotes growth and financial stability while maintaining equity. Subsidies should be reduced by effectively targeting the groups that are truly in need, and development expenditure should be increased by making better use of all available resources. Revenue should be increased without an increase in tax rates by reducing tax evasion.

CHAPTER IV

TREND AND PATTERN OF PUBLIC REVENUE IN KERALA

The chapter seeks to analyse the trends and identify the factors that play a role in the generation of revenue. A discussion of the national revenue and its sources is presented in the first section followed by a detailed exploration of state revenue.

4.1 Framework for Public Revenue

The health of an economy is verily dependent on its capacity to mobilise revenue. Governments require revenue for purposes such as to finance government activities, in particular the provision of essential public services for the citizens, to reduce the need for public borrowing to fund government activities. Adequate mobilisation of revenue helps governments achieve efficient governance and public management. The State also makes use of revenue, tax revenue in particular, as an instrument to influence the incentives for work, savings, investment, entrepreneurship, and innovation, thereby promoting economic growth. As per the consensus arrived at the United Nations Financing for Development Summit held in Monterrey in 2002 and reiterated at Doha in 2008, developing countries are committed to improving their overall public revenue mobilisation in return for a higher flow of international development assistance.

The major sources of government revenue are taxes, non-tax revenue, transfers and grants. There are two types of taxes namely direct and indirect. The burden of direct taxes falls directly on the income or assets of physical or legal persons such as corporations and foundations. The best examples of direct taxes are personal income tax, corporate income tax and payroll tax. On the other hand, indirect taxes are levied indirectly on the use of income or assets. Some of the popular examples of indirect taxes are general sales tax, value added tax and excise tax (Greene 2012). Non-tax revenue sources include profits of public sector enterprises, income from government-owned property, land leases or fees tied to the value of natural resources such as coal and oil and administrative or user fees (Greene 2012).

State governments receive funding from the federal government in two ways: grants-in-aid and a share of the national government's own revenues (Greene 2012). Grants are financial contributions made in support of deserving causes, to carry out particular programmes, or in exchange for the satisfaction of certain requirements. They are typically offered with the intention of encouraging the recipients to offer more of the desired good or service than they otherwise would. The two channels of resource flow—transfers and grants—are primarily intended to assist state governments in closing the gap between their spending requirements and available resources, or "vertical imbalance," which arises as a result of greater spending pressure on states than on the federal government (OECD).

4.2 Probe into the Central Revenue Patterns

In a federal union like India, strong fiscal federalism is inevitable for development. A healthy fiscal federal relation is characterised by the least vertical imbalances. The Indian states get transfers from the central government in addition to their own revenue. The former combines the state's portion of federal grants and central taxes, while the latter consists of the state's own tax and non-tax earnings. Consistent fiscal deficits show that the Central Government's overall revenues have continually lagged behind its entire expenses. Fiscal reforms were viewed as a significant element of economic reform efforts, which started in 1991, in order to ameliorate the situation of growing budget deficits in the Indian economy. Budget shortfalls were mostly brought in by current spending growing faster than current revenue growth. Because it was challenging to limit spending, the main goal of the fiscal reform process was to increase revenues. Comprehensive tax reform measures were implemented in order to increase collections, while the non-tax revenue side was largely disregarded.

Several reform measures were undertaken in the regime of taxation which included a reduction in the rates of customs duties and rectifying abnormalities like inverted duty structure on the lines of the recommendations of the Long Term Fiscal Policy of 1985, reduction in personal and corporate tax rates, rationalising excise duties with a median Central Value Added Tax rate as per the recommendations of Tax Reforms Committee in 1991 for achieving a non-cascading self-enforcing and harmonised commodity taxation regime. All these tax reforms in the Indian fiscal system had helped to improve the position to some extent.

As a consequence of fiscal reform measures taken in 1990-91, the revenue receipts increased to Rs. 18501 billion in 2019-20 from Rs. 549.54 billion in 1990-91 in absolute terms. The measures undertaken by the government to augment the revenues included simplification and rationalisation of the direct tax structure and the introduction of service tax to widen the tax base. Steps were taken to reduce the rates of individual and corporate income taxes, excise and customs duties and to make them more progressive. The quality of tax administration was improved by taking steps towards computerisation. Consequently, the share of revenue receipts in total receipts grew from 72.9 percent in 1990-91 to 78.13 percent in 1996-97 then fell to 66.57 percent in 1999-00. Certain reform measures like reforms of excise and customs duties were revenue-negative and thus, resulted in a decline in the share of revenue receipts in the total receipts of the Central Government by the end of the nineties. However, in the 2000s there was an improvement in the share of revenue receipts in total receipts. In 2001-02, the share was 68.3 percent and then fell slightly in the subsequent years. The share then went up to 81.46 percent in 2007-08.

In 2008-09, the economy was hit by multiple shocks. The Indian economy confronted one of the severest external shocks in the form of an intense global financial crisis coupled with a global recession. Low demand due to the decline in growth of manufacturing activities and services, increased interest rates and limited international capital availability gravely affected the economy. In 2009-10, the share of revenue receipts fell drastically to the extent of 76.23 percent. To revive the economy the actions that the government took were an overall central excise duty cut of 4 percent and a rollback in the service tax rate to 10 percent leading to a fall in the revenue receipts. The revenue receipts consequently rose in the following years reaching 81.11 percent of total receipts in 2013-14. The share of revenue receipts, however, has fallen to nearly 65 percent in 2020-21 which may be the reflection of the chaos caused by the demonetisation, the implementation of the Goods and Service Tax and the COVID-19 pandemic.

Revenue receipts, as a percentage of Gross Domestic Product, (GDP) went down from 10.8 percent in 1991-92 to 9.3 percent in 2001-02 and then increased to 11.8 percent in 2007-08. This growth can be attributed to the revenue-raising strategy of the government for achieving the targets set under the Fiscal Responsibility and Budget Management Act, 2003 and the macroeconomic policy frame in 2007-08 which facilitated the implementation of some of the fiscal reform agenda of the Kelkar Task Force Reports on direct and indirect taxes. The global financial crisis brought down this ratio to 10.2 percent and 9.4 percent in the next two years. The revenue receipts, as a percentage of GDP, continued to remain at nearly the same level, at 9.9 till 2017-18. Mirroring the Goods and Services Tax implementation and the COVID-19 pandemic the share has come down to 8.9 in 2020-21.

The share of the Central Government's capital receipts in the GDP was 7.3 percent in 1990-91 and then kept on declining till 2001-02 barring 1998-99 when the capital receipts reached 7.8 percent. Thereafter, it increased in 2002-03 owing to the implementation of the debt swap scheme of the Central Government. Under the scheme, the states were allowed to retire the loans taken from the Central Government bearing an interest rate of more than 13 percent. The retirement of these prohibitive cost loans was funded through additional market borrowings and a specified percentage of small savings collections. The increase in capital receipts as a percentage of GDP continued until 2003-04 and reached a peak of 8 percent. This happened because the realisation through disinvestment was highest in 2003–2004. There was also a significant acceleration in the rate of growth of debt receipts and accruals from public accounts. Since then, the ratio has declined, with a sharp decrease in 2006-07 mainly because of the discontinuance of the 'debt swap scheme'. The ratio reached 3.7 percent in 2006–2007. The capital receipts increased steeply in the late 2000s mainly because of the annual transfer of surplus by RBI due to the sale of its stake in the State Bank of India to the Government of India. However, this was partly offset by a reduced recovery in the loans and advances because of gradual disintermediation by the Central Government and the debt consolidation and debt waiver schemes. In 2009-10, the ratio went up again to 7.4 percent.

Tax revenue is the most important source of public revenue. Taxes are imposed so that the government is in a position to perform its functions of defence and maintenance. The foremost objective of tax policy in developing countries is to mobilise resources for the public sector to finance welfare and developmental plans. The extent to which a tax policy is used for this purpose is a matter of interest for national policymakers and foreign aid donors. Overseas governments and international organisations usually assess the efforts made by recipient countries to raise resources domestically.

Table 4.1. Composition of Revenue of the Union Government

(In Rupees Crores)

Year	Tax revenue as a percent of GDP	Non-tax Revenue as a percent of GDP
1990-91	429.78 (8.08)	119.76(2.25)
1993-94	534.49 (6.53)	220.04(2.69)
1996-97	937.01 (7.20)	325.78(2.50)
1999-00	1282.71(6.90)	532.11(2.86)
2002-03	1585.44 (6.76)	722.90(3.08)
2005-06	2702.64(7.97)	768.13(2.27)
2008-09	4433.19(8.36)	969.40(1.83)
2011-12	6297.64(7.50)	1216.72(1.45)
2014-15	9036.15 (7.85)	1977.66 (1.72)
2017-18	12424.88 (8.18)	1927.45 (1.27)
2020-21	16359.09 (7.27)	3857.17 (1.67)

Note: Figures in parentheses represent the percentage of GDP

Source: Database on Indian Economy, Reserve Bank of India, 1990-91 to 2020-21, Mumbai

Tax measures initiated since 1991 targeted the sizable growth in tax revenues. Consequently, tax revenues rose to Rs. 6297.65 billion in 2011-12 from Rs. 429.78 billion in 1990-91. However, tax reforms were introduced and the subsequent reduction in customs tariffs which were due to a reduction in import duty rates, in the wake of commitments to the World Trade Organisation, caused a decline in the tax-GDP ratio. The economic crisis of 1991 resulted in a significant decline in revenues. Although the tax reforms intended to be a revenue-neutral exercise, the innate result of a significant decline in tax rates was reduced revenues. As there was not any commensurate increase in the tax base, the revenues, therefore, showed a declining trend. Thus, the share of tax in GDP, which was 8.08 percent of GDP in 1990-91, declined sharply to 6.27 percent in 1998-99. Thus, the reforms caused a loss of revenues. This fall was also attributable to a change in the structure of the economy, where the share of the industrial sector had fallen and the services sector had increased significantly, without being brought into the tax net in significant ways. Overall, the level of tax revenues, even though reasonable as compared to the average tax level in other developing countries, is insufficient from the viewpoint of the resource requirements of the economy.

Tax revenue, as a proportion of total revenue receipts, came down from 78.21 percent in 1990-91 to 70.84 percent in 1993-94. Efforts were made to correct this downtrend with the introduction of service tax in 1994-95. Thus, there was an improvement to 70.4.40 percent in 1995-96. However, this could not continue for long and the ratio came down to 66.33 percent in 2001-02.

Post-FRBM Act, tax revenues as a proportion of total revenues increased from 68.68 percent in 2002-03 to 81.12 percent in 2007-08. This growth was again attributable to the revenue-led strategy of the government for achieving the targets set under the FRBM Act, of 2003. Some of the important fiscal measures implemented in the FRBM Act were reducing the peak rates of customs duties, rectifying anomalies like inverted duty structure, rationalising excise duties with a movement towards a median CENVAT rate, revisiting the tax exemptions and relying on voluntary tax compliance through taxpayer facilitation (Planning

Commission, 2006-07). The Central government's finances deteriorated significantly during 2009-10 due to the expansionary fiscal policy stance adopted by the government to address growth concerns as a fallout of the global financial crisis. However, with economic recovery during 2010-11, the government reverted to the path of fiscal consolidation with a partial exit from stimulus measures. The implementation of GST in July 2017 and the teething problems that followed in its wake did not deter the indirect tax collections. Gross direct tax revenues were buoyed by higher collections under income and corporate taxes. In 2019-20, general government finances deviated from budgetary targets. For the central government, the overshoot in its gross fiscal deficit was mainly due to lower-than-budgeted tax collections, reflecting the growth slowdown as well as the rationalisation of corporate tax rates.

As a percentage of GDP, the tax revenue increased significantly from 6.76 percent in 2002-03 to 9.59 percent in 2007-08 where it peaked. The entire improvement came from the buoyancy of direct taxes, more particularly from corporate tax, reflecting the increasing profitability of the Indian corporate sector. Then, the ratio fell to 8.36 and 7.47 percent in the next two years due to the global financial crisis. Only a couple of years after the crisis, the beneficial impact of the rationalisation of the direct tax structure on revenues was witnessed. Recovery was noticeable in the Tax–GDP ratio at the level of the Central Government. Tax–GDP was 8.36 percent. The tax-GDP ratio has, however, dropped to 6.82 in 2018-19.

In the wake of reforms initiated in the early nineties, the decline in the relative share of direct taxes had reversed. Direct taxes, as a percentage of the Centre's total tax collections, rose from 16.06 percent in 1990-91 to 36.33 percent in 2000-01. It stood at 59.50 percent in 2009-10. In the 2011-12 budget it was 54.51 percent. The improvement in direct tax collections despite scaling back of income tax rates during this period could be attributed to an expansion in the tax base, extension of the base for tax deduction at source and improvement in direct tax administration. High tax compliance due to the restructuring of tax administration and the introduction of information technology on a large scale assisted this improved revenue collection. The direct tax collection is 49.65 percent in 2019-20 which sets the alarm for more stringent measures to trap the tax evaders.

Table 4.2: Components of Central Indirect Tax Revenue

(In Rupees Billion)

Year	Indirect Tax	Excise Duty	Customs Duty
1990-91	360.75(83.94)	141.00(32.81)	206.44(48.03)
1993-94	409.27(76.57)	172.24(32.23)	221.93(41.52)
1996-97	683.26(72.92)	234.63(25.04)	428.51(45.73)
1999-00	868.36(67.70)	349.44(27.24)	484.19(37.75)
2002-03	969.32(61.14)	623.88(39.35)	318.98(20.12)
2005-06	1495.72(55.34)	866.42(32.06)	466.45(17.26)
2008-09	1951.69(44.02)	818.72(18.47)	692.17(15.61)
2011-12	2864.54(45.49)	1162.26(18.46)	1056.14(16.77)
2014-15	4030.85(44.61)	1537.09(17.01)	1279.94(14.16)
2017-18	6362.72(51.21)	2113.93(17.01)	786.01(6.33)
2018-19	5937.19(45.07)	2040.21(15.49)	752.31(5.71)
2019-20	7575.41(50.35)	2182.17(14.50)	787.35(5.23)

Note: Figures in parentheses represent the percentage of total tax revenue

Source: Database on Indian Economy, Reserve Bank of India, 1990-91 to 2020-21, Mumbai

The share of indirect taxes in total taxes had declined from 83.94 percent in 1990-91 to 40.50 percent in 2009-10. In 2015-16, additional revenue mobilisation accounted for around 15 per cent of indirect tax revenue, imparting significantly higher growth to collections. Revenue from union excise duty was 23.6 per cent higher than budgeted, reflecting upward duty revisions on petroleum products for consumption-smoothing in the face of a sharp decline in international crude prices. Custom duty collections rose modestly on the back of rate increases, including countervailing and antidumping interventions, even as the tax base, i.e., imports shrank. The percentage share of indirect tax in total tax revenue increased, as a result. However, in 2018-19, public finances recorded modest deviations from budgetary deficit targets across the general government.

Table 4.3: Components of Direct and Indirect Taxes of the Union Government as a Percent Of GDP

Year	Direct Tax/GDP	Income Tax/GDP	Corporate Tax/GDP	Indirect Tax/GDP	Excise Duty/GDP	Customs Duty/GDP
1990-91	1.30	0.24	1.00	6.78	2.65	3.88
1993-94	1.53	0.17	1.23	5.00	2.11	2.71
1996-97	1.95	0.36	1.43	5.25	1.80	3.29
1999-00	2.23	0.49	1.65	4.67	1.88	2.61
2002-03	2.63	1.19	1.45	4.14	2.66	1.36
2005-06	3.56	1.33	2.22	4.41	2.56	1.38
2008-09	4.68	1.64	3.03	3.68	1.54	1.31
2011-12	4.09	1.41	2.71	3.41	1.39	1.26
2014-15	4.35	1.64	2.71	3.50	1.34	1.11
2017-18	3.99	1.70	2.29	4.19	1.39	0.52
2020-21	4.31	2.09	2.22	3.95	1.19	0.45

Note: Figures given in percentages

Source: Database on Indian Economy, Reserve Bank of India, 1990-91 to 2020-21, Mumbai

Table 4.3 shows that the indirect taxes as a percentage of GDP had also shown a declining trend since 1990-91. From 6.78 percent in 1990-91, it fell to 3.95 percent in 2001-02. In 2007-08, it was 4.54 percent falling down to 3.03 percent in 2009-10. The trend has shown a slight increase and reached 4.19 percent in 2016-17 since revenue mobilisation was claimed as the cornerstone of fiscal consolidation that particular year. Direct taxes as a percentage of GDP, however, had shown an improvement post 1990-91. It improved from 1.30 percent in 1990-91 to 5.05 percent in 2007-08. Because of the higher growth of direct taxes, there had also been a shift in the composition of gross tax revenues of the Centre. For the first time in the history of the public finances of the country, direct taxes had overtaken indirect tax collections in the year 2007-08. This was a healthy advancement, as direct taxes are considered more progressive than indirect taxes. From less than 20 percent share of total tax revenues in 1990-91, the share of direct taxes had increased to over 55 percent in 2008-09. Within direct taxes, the share of corporate tax had increased from 12.41 percent of tax revenue in 1990-91 to 38.73 percent in 2009-10, showing an increase of over 24 percentage points. The share of personal income tax in the total tax revenue of the Centre witnessed an increase from 2.91 percent to 21.04 percent in the same period.

In the case of indirect taxes, while the share of customs duties in tax revenues declined from 48.03 percent to 13.19 between 1990-91 and 2009-10, the share of union excise duties witnessed a sharp decline from 32.81 to 18.48 percent. This decline in the share of excise duties was large because of rate cuts and a slowdown in the growth of the manufacturing sector. The share of indirect taxes would have fallen further, but for the buoyant revenues from service tax. The increase in the share of service tax was because of an increase in both coverages as well as tax rates. Service tax as a proportion of total taxes has witnessed an increase from 0.60 percent in 1994-95 to 15.48 percent in 2011-12. Due to the global financial crisis, the direct tax-GDP ratio once again showed a decreasing trend over the next 4 years. While the fall in direct taxes was mainly due to shrinking economic activities, the falling excise and customs receipts were primarily due to counter-recessionary concessions given to boost economic activities. Overall, as per the estimates of the budget for the fiscal year 2017-18, the direct tax collection of India was Rs. 7234.92 billion and the indirect tax collection was Rs. 5937 billion. Thus, it is observed that even though the share of direct taxes had increased over the years still it was far below the contribution made by indirect taxes. In the year 2018-19, there was a reversal of this trend. The reason for this change can be attributed to the shortfall in GST collections. The shortfall in GST collections can be attributed to the rationalisation of GST rates twice during the year.

The dominance of indirect taxes in India has serious equity implications. Indirect taxes are convenient to collect but lack equity consideration. It is not possible to grant exemptions or allow deductions or have a progressive rate schedule. Commodity taxes are borne in relation to consumption expenditures, which constitute a higher percentage of income for lower-income groups. Moreover, a substantial amount of indirect taxes is paid by the government to itself as public expenditures and does not lead to any actual revenue generation. At any time, public expenditures form one-fourth of the total expenditures in India. Thus, in indirect tax reform, it is important to emphasise the quantity and the quality of the revenue. In recent years, the Indian Government has undertaken significant reforms to the indirect taxation system. This includes the initiation of the Goods and Services Tax on goods and services.

The relative contribution of personal income tax was very low at 2.91 percent in 1990-91. The reasons were massive tax evasion and tax avoidance and the slowdown of the economy. The tax structure of personal income tax has been rationalised to a large extent since the initiation of tax reforms. This is reflected in the rate structure. After the tax reforms were initiated in 1991, the percentage share of personal income tax in total tax collections had increased. It went up to 17.39 percent in 2000-01. Thereafter, it had been increasing and was measured at 19.68 percent in 2007-08. In the year 2009-10, it was estimated at 20.71 percent. This was due to increased tax collections on behalf of the sixth pay commission. It is 21.07 percent of the total tax in 2017-18. The percentage of personal income tax in GDP had increased from 0.24 percent in 1990-91 to 1.19 percent in 2000- 01. In the 2007-08 budget, it was at a peak of 1.89 percent. Then the ratio started falling owing to the slowdown of the economy, post global financial crisis. The trends in personal income taxes show that reforms had a favourable impact on the growth of personal income taxes.

The revenues from the corporate tax grew at the fastest rate during the nineties. As a ratio of GDP, the revenue from the corporate tax increased by almost three times, from 1.0 percent in 1990-91 to 3.16 percent in 2007-08. This happened despite the reduction in the rates. The reforms, comprised of doing away with the distinction between widely held and closely held companies, reduction in the marginal tax rates to make it parallel to the top marginal tax rates of personal income tax, rationalising tax preferences – investment allowance and depreciation allowance to a considerable extent. In addition, the introduction of the Minimum Alternative Tax in 1997-98 also contributed to the revenues. The increasing profitability of the Indian corporate sector was reflected in the growth of the ratio until 2007-08. Due to the shrinking economic activities post-global financial crisis, the corporate tax-GDP ratio started declining. To counter this, the surcharge on corporate tax for domestic companies was reduced resulting in a reduction in the overall rate. Certain changes were also made to the Minimum Alternate Tax (MAT) provisions, to maintain revenue neutrality and preserve horizontal equity as far as feasible (Ministry of Finance, 2011). In 2017-18, the corporate tax rate as a percentage of GDP was 2.35 percent.

The reforms in union excise duty in 1990-91 rather than improving the revenue productivity, had led to its decline over the years. The tax GDP ratio declined continuously reaching 2.49 percent and 1.49 percent in 2000-01 and 2017-18 respectively. Not only but the revenue productivity of union excise duty also declined over the years. Even the composition showed an increase in revenue concentration particularly towards commodities which could be used in further production. Just five groups of commodities, namely petroleum products, chemicals, basic metals, transport vehicles and electrical and electronic goods together contributed to 75 percent of total revenue collections from excise duty. It was normally expected that over the years, with diversification in manufacturing, the commodity concentration in excise duty would reduce. Contrarily, the commodity concentration had only increased over the years with a single group, petroleum products contributing to over 40 percent of the union excise duty collections. As a percentage of total tax collections, this component of revenue had wide fluctuations from year to year. As a percentage of total taxes, it was 32.81 percent in 1980-81, falling down to 27.24 percent in 1999-00 and then fluctuating for some time. It fell down to 18.47 percent in 2008-09 and had hence remained around the same level post global financial crisis. In the year 2017-18 the tax collection recorded was 17.77 percent of total tax collection. The fluctuations were due to the variations in administered prices on items such as steel, minerals and ores, coal and petroleum products, which also vary with international prices. In other words, the revenue from excise duty, which comprises an important source of revenue, fluctuates widely depending upon the pricing and output decisions of the government.

Table No. 4.4 Non-Tax Revenue as a percentage of Union Revenue

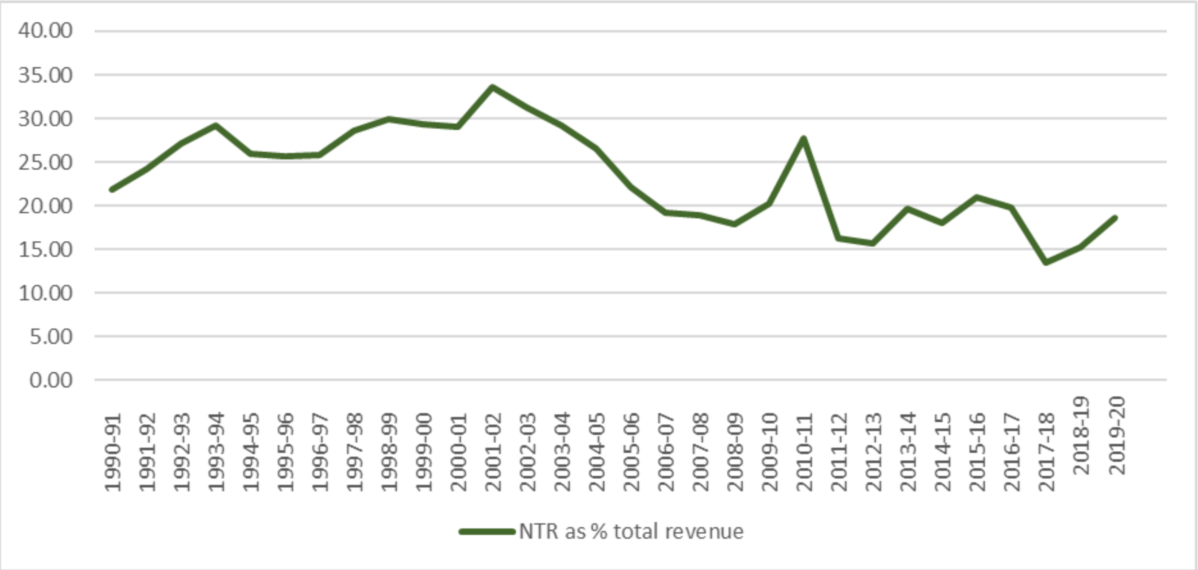
(In rupees crores)

	Revenue Receipts	Non-tax Revenue	Non-tax Revenue as a percentage of Total Revenue
1990-91	549.54	119.76	21.79
1995-96	1101.30	281.91	25.60
2000-01	1926.05	559.47	29.05
2005-06	3470.77	768.13	22.13
2010-11	7884.71	2186.02	27.72
2015-16	11950.25	2512.60	21.03
2020-21	20209.26	3850.17	19.05

Source: Database on Indian Economy, Reserve Bank of India, 1990-91 to 2020-21, Mumbai

The non-tax revenue is a major source of revenue for the government. Non-tax revenue comprises coins, currency, interest receipts and revenue from administrative services. Grants-in-aid and contributions received also come constitute non-tax revenue of the central government.

Figure 4.1: Trends of Union Non-Tax Revenue as a Percent of Total Revenue



Source: Database on Indian Economy, Reserve Bank of India, 1990-91 to 2020-21, Mumbai

During the post-reform period, from 1990-91 onwards, non-tax revenues rose to Rs. 559.47 billion in 2000-01 and then to Rs. 1023.17 billion in 2007-08. In 2017-18, the non-tax revenue collection was Rs. 2359.74 billion. Non-tax revenues constituted nearly one-fourth of total revenues during this period. This ratio witnessed a gradual acceleration from 24.17 percent in 1991-92 up to 2001-02 when it peaked at 33.67 percent. Thereafter, it started declining and reached 17.94 percent in 2008-09. This decline was partly due to the corporatisation of telecom services and the setting up of Prasar Bharati and mainly due to a reduction in interest receipts and a softening interest rate regime along with the debt swap scheme. Another reason for such a decline was that the non-tax revenues were not considered an important source of revenue generation. In 2012-13, the ratio reached nearly 15 percent. Non-tax revenue reached a drastic low of 13 percent in 2017-18. This shortfall is mainly on account of lower receipts from interest, dividends and profit. The increase in non-tax revenues in the consequent years was, primarily due to the transfer of excess reserves from the Reserve Bank and partial settlement of pending adjusted gross revenue dues by telecom companies.

Non-tax revenues as a percentage of GDP also remained low over the period. It was 2.25 percent in 1990-91 and fluctuated around that ratio only with a slight rise at the beginning of the 2000s until it fell to 1.83 percent in 2008- 09. This was attributable to a fall in interest receipts from the states due to the termination of the practice of lending to states and interest relief because of the debt consolidation and relief facility following the recommendations of the Twelfth Finance Commission (Report of Thirteenth Finance Commission, 2010-15). The debt swap scheme under which the states swapped their high-cost outstanding debt to the Centre with low-cost market borrowings during 2002-05 also partly led to lower interest payments by the states. The non-tax revenue-GDP ratio had shown an improvement in the next two years because of the sale of the 3-G spectrum (13th Finance Commission Report) and the exploitation of offshore oil and gas reserves.

However, India, being a union comprising states at extreme ends of the fiscal and social development, the probability of the nation’s fiscal indicators exactly reflecting each state's fiscal condition is very low. This calls for a detailed evaluation of public revenue earned by the state to fathom its fiscal strength.

4.3 A Dissection of the Kerala State Revenue

Kerala is one such state which is a far reflection of the national picture. The state differs drastically from the Centre in terms of human development and economic indicators with the state occupying the highest ranks. However, the performance of the state on the fiscal front has been dismal. Kerala did well in terms of human development indicators and saw increases in State Domestic Product and per capita income, but there was no corresponding increase in tax realisation. A secular decline in the balance from revenue is evident, illustrating the growing disparity between expenditure and revenue. The total revenue receipts of the states in India consist of their own revenue receipts and transfers from the central government. The former comprises states' own tax and non-tax revenues and the latter is the combination of states' share in central taxes and grant-in-aid from the centre.

The fiscal maladies of the state date back to the early eighties. From 1983-84 onwards, Kerala has been experiencing revenue deficits. Since the 1990s, the structure of state revenues has experienced significant changes. During the period from 1980–1981 to 1992–1993, 75% of the revenue came from receipts, and the remaining 25% came from capital receipts. In terms of total revenue receipts, own tax revenue contributed 54%, state non-tax revenue contributed 12%, and the remainder was made up of central transfers. Later years saw a reduction in the trend to around 72%, although the proportion of personal tax revenue to total revenues rose from 54% to 62%. The study also reveals a fall in the average growth rates of total tax income over the second half of the 1990s as a result of a slowdown in GSDP growth.

The state has been under severe financial constraints for long years. The revenue deficits were recorded at Rs.27.73 crores in 1980-81, Rs. 371.31 crores in 1993-94 and touched Rs. 848.50 crores in 1995-96. The reason for the increasing revenue deficit was considered the result of revenue expenditure rising at a faster rate than income. The trend is reflected in the gross fiscal deficit too. The gross fiscal deficit showed Rs.448 crores in 1987-88 and Rs.934 Crores in 1993-93. The Second State Finance Commission vividly states the reason for the steep rise in revenue deficit between 1990 and 2000, “It is pertinent to remark here that the data reveal that high revenue deficit in Kerala in the recent years, is primarily a result of fall in the efficiency of resource mobilisation, and only secondarily because of the growth in expenditure.”

In the 1990s, significant modifications were made to the structure of State revenues. The percentage of the State's own tax revenue rose significantly from 55.8 percent in 1990–1991 to 62.4 percent in 1995–1996 and then to 67.2 percent in 2000–2001. Kerala consistently outperformed All States in terms of the proportion of the State's own taxes to overall revenues throughout the course of the three years. During the first half of the 1990s, but not the second, the percentage of the State's own non-tax revenue climbed marginally. Kerala lagged below All States in terms of the percentage of its own non-tax revenue during the course of three years. But if we look at the total amount of State revenue, Kerala outperformed all other States over the course of the three years. The percentage of the State's own revenue climbed significantly, from 64.5 percent in 1990–1991 to 74.8 percent in 2000–2001. Throughout the three years, Kerala outperformed all other States in this regard. The proportion of total revenue transfers going to Kerala decreased consistently. Over the course of the three years, there was a consistent decrease in the proportion of Central taxes to overall revenue. In all three years, Kerala trailed below All States in this area. Over the course of three years, there was a consistent and significant decline in the share of grants from the Centre as well. Kerala trailed behind All States in both of the Central Transfers components.

To restore fiscal credibility, the government had to implement extremely harsh economic measures, some of which deserve special mention, such as the elimination of leave encashment facilities for employees, the payment of only basic pay to new entrants in service for the first two years, and the slashing of ministerial salaries by 20% for six months. Employees' wage payment dates were also pushed back. Until they were absorbed against openings, protected teachers were paid only half of their normal wage. It was only when a long-standing discrepancy in inflows and outflows was rectified that confidence in the state finances was restored.

The combined revenue shortfall, which had been reduced to 3.53 percent in 1996-97, had risen to 6.60 percent in 2002-03 as a result of events from 1997-98 to 2002-03. In addition, the fiscal deficit grew from 6.26 percent in 1996-97 to 9.30 percent in 2002-03. The need for budgetary consolidation to be anchored was felt more than ever before in order to re-establish economic growth momentum. Apart from several initiatives taken by the Centre to stem the tide, the Eleventh Finance Commission (EFC) was mandated to "review the state of finances of the Union and the States and suggest a plan by which the Governments, collectively and individually, may bring about a restructuring of the public finances, restoring budgetary balance, and achieving fiscal sustainability."

The Eleventh Finance Commission's terms of reference, as well as the Commission's recommendations based on them, reinforced the push for rule-based budgeting at the federal and state levels. As a result, the Centre passed the Fiscal Responsibility and Budget Management (FRBM) Act in 2003, while Kerala passed the Kerala Fiscal Responsibility (KFR) Act in the same year. Kerala had to eliminate its income deficit by 2007 and keep its fiscal deficit to 2 percent of GSDP in the same year, according to the original KFR Act of 2003. The target years were revised in 2011 as a result of an amendment to this Act to align with the 13th Finance Commission's targets. The compliance year for the foregoing targets was 2003, according to the FRBM Act.

The economy's recovery in 2003-04 prepared the ground for fiscal consolidation once more. Higher economic growth aided tax collection, and interest rates were falling in tandem with decreased inflation. By 2003-04, the Ministry of Finance had implemented a debt exchange programme, taking advantage of the market's lower interest rate regime, to replace high-cost State Government debt with low-cost loans, resulting in interest savings. The 12th Finance Commission's Debt Consolidation and Relief Facility (DCRF) combined outstanding Central Government loans and rescheduled repayment for a longer time with a lower interest rate. From 2005 to 2006, the Value Added Tax regime was implemented. The tax administration has improved as a result of this, and the degree of compliance has increased. As a result, revenue collection increased significantly at the federal level and in the states from 2007 to 2008, assisting budgetary consolidation.

During the period of fiscal adjustments and reforms, many governments were able to not just balance their income accounts, but also earn surpluses for capital investment. As a result, both the federal government and the states' fiscal positions improved more quickly. The budgetary indicators improved substantially, and the gains were noticeable both at the federal level and at the state level. The combined deficit indicators and indicators of the State's aggregate from 2003-04 to 2007-08 are evidence of the fiscal consolidation that took place during that time.

However, in the aftermath of the global financial crisis, the economy began to contract again in 2008-09. The growth of revenue at the federal level and in the states became sluggish. The gains made by the federal government and the states' public finances have eroded again. Kerala's economy has been more connected to the world economy than any other state, and as a result, global economic trends greatly impacted Kerala more than any other state, and the state's economy has remained stagnant.

The Central Government's recent policy measures have reduced the fiscal space available to states in utilising resources obtained from the central transfer. The main illustrations in this situation are the permission granted by the Central Government to states on additional borrowing of 2 percent of the State Gross Domestic Product in light of Covid-19 and the conditional grants to local bodies under the 15th Finance Commission (FC) recommendations. Because of the unilateral approach to decision-making, the spirit of fiscal federalism has also been derailed.

The introduction of GST has further constrained the ability to raise funds through taxes. Furthermore, the receiving of GST compensation from the central government has been delayed. The State Government receives about 30 percent of its overall revenue from the federal government in the form of loans or grants. Since 2015-16, changes in the funding pattern of Centrally Sponsored Schemes (CSS) have had an impact. In schemes where the state formerly covered 25 percent of the cost, the state now covers 40 percent of the cost.

Nationalization policies imposed by Gulf countries, such as the Nitaqat law, have adversely affected the flow overseas remittances to Kerala and, consequently, on household consumption demand. The decrease in overseas remittances hurt state activities, predominantly in the fields of trade, real estate, and construction. In terms of economic output and employment, the functioning of export-oriented businesses such as cashew, coir, handloom, and other cash crops is extremely important in Kerala. Plantation and allied product prices declined as a result of a drop in export demand mixed with national trade restrictions, thus impacting the traditional sectors that have been the foundation of the State economy. The increase of the State Domestic Product, which had been regularly higher than the national average, decreased to 8.59 percent in 2015-16, whereas the national average was 9.94 percent. The demonetisation policy aggravated the states' macroeconomic problems. Demonetisation had a significant impact on purchasing power and economic activity in Kerala, according to the study of the State Planning Board-appointed Committee on the Impact of Demonetisation on Kerala's Economy.

The revenue Deficit for 2019-20 is 2.01 per cent as against 2.23 per cent in 2018-19. The revenue Deficit has recorded a 2.5 per cent in 2020-21. The current fiscal strain may remain as a result of the national and global economic slowdowns, as well as the corresponding expenditures to combat the epidemic.

4.3.1 Trends in Revenue Receipts

States' revenue receipts are made up of their own revenue plus payments transferred from the federal government. Tax income, which includes various taxes collected by states such as sales tax, excise duty, and stamp duty, and non-tax revenue, which comprises fees for supplying services such as electricity, water, and forestry, make up states' own revenue receipts. Non-tax revenues are the revenues obtained by the government from sources other than taxes. The main sources of non-tax revenues are administrative revenues in the form of fees charged by the public authorities for rendering service to the members of the public, fines and penalties imposed as a form of punishment for breach of law or non-fulfilment or failure to observe some regulations, surplus from public enterprises and gifts and grants.

In the majority of Indian states, tax receipts make up the majority of total income, and Kerala is no different. Additionally, since the concept of the "welfare state" dominates both perception and policymaking, non-tax revenues are not significant. Once more, this is consistent with a majority of the Indian states. Shared taxes and grants from the Union government, which are mostly externally regulated, make up the other two revenue streams.

(i) Shares in revenues devolved from the central pool of taxes, and (ii) grants-in-aid for specific objectives and programs are the two types of central transfers to states. Capital receipts encompass (i) state borrowings, (ii) repayment received for loans provided by the state, and (iii) revenues from disinvestment of state public sector businesses, all of which led to a shift in a state's assets or liabilities.

Table No. 4.5 Total Revenue and its Percentage of GSDP

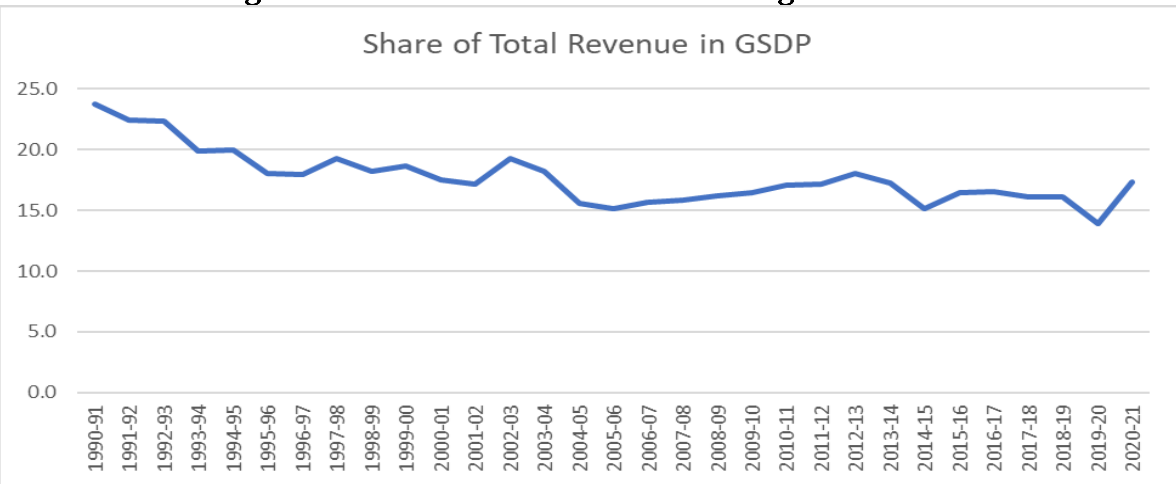
(In rupees crores)

Year	Total Revenue	Total Revenue/GSDP
1990-91	3351.79	23.77
1995-96	6986.86	18.02
2000-01	12728.65	17.52
2005-06	20666.31	15.10
2010-11	45001.80	17.06
2015-16	92422.83	16.46
2020-21	138884.49	17.37

Source: State Finances: A Study of Budgets, Reserve Bank of India, 1990-91 to 2020-21, Mumbai

The total revenue of Kerala as a percentage of GSDP has declined over time and this was caused by a decline in revenues from both own revenue (both tax and non-tax) sources of the state and central transfers. Many happenings beyond the State Government's control have had an impact on its fiscal health. The establishment of the GST has imposed serious constraints on states' ability to raise their own taxes. The lag in providing GST compensation has contributed to the stress of managing the state's budget. In recent years, the Central share available to States in Central Assistance Schemes has decreased significantly compared to previous years.

Figure 4.2: Total Revenue as Percentage of GSDP



Source: State Finances: A Study of Budgets, Reserve Bank of India, 1990-91 to 2020-21, Mumbai

The amount of shared net revenues that the state of Kerala is entitled to have been steadily decreasing. The share of horizontal devolution granted by the 15th Finance Commission has decreased to 1.925 percent from 2.5 percent granted by the 14th Finance Commission, resulting in a considerable reduction in the State's revenue receipts. Moreover, the fiscal cost inflicted by demonetisation was seen in the form of a negative impact on the fiscal adjustment roadmap. The State Government's efforts to generate tax collections in 2016-17 were badly hampered, and the State was only able to achieve 8.16 percent growth instead of the revised objective of 14.24 percent, severely disrupting the fiscal parameters outlined in the Budget. It is ironic to note that even when the revenue collection suffered a setback in 2016-17, the major sectors marked commendable growth rates.

Revenue as a percentage of GSDP climbed to around 12.21 percent in 2020-21, up from 10.94 percent in 2019-20. Despite a 5.3 percent drop in state-owned tax revenue and a 40% drop in state-owned non-tax revenue, the state's overall receipts climbed by 8.2 percent due to an increase in central receipts from revenue deficit grants and GST compensation. During 2020-21, the primary sector grew at a rate of 6.28 percent, while the secondary and tertiary sectors grew at (-)3.71 percent and (-)3.64 percent, respectively. Manufacturing, trade and repair services, hotels and restaurants, construction, road transport, financial services, and public administration were all severely impacted. The epidemic and subsequent lockdowns had a particularly negative impact on the economy's growth-promoting sectors as well.

Table No. 4.6 Components of Revenue Receipts

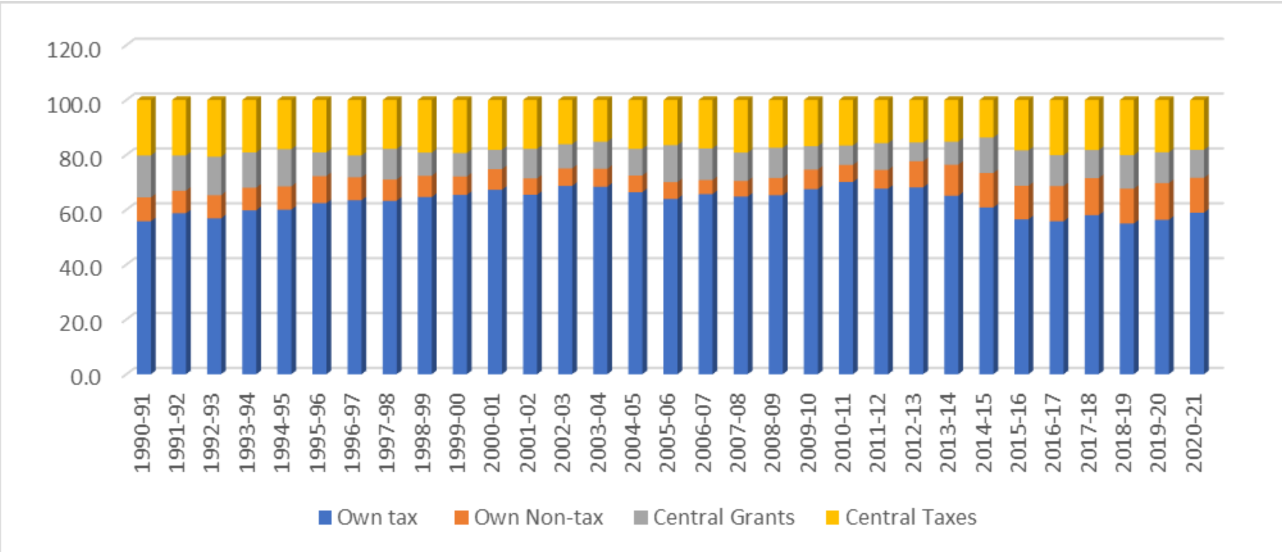
(In Rupees Crores)

Year	Own Tax Revenue	Own Non-Tax Revenue	Grants from the Centre	Share in Central Taxes	Revenue Receipts
1990-91	1340.4 (55.78)	208.8 (8.7)	367.5 (15.3)	486.3 (20.2)	2402.9 (100)
1995-96	3382.7 (62.37)	535.5 (9.9)	468.4 (8.6)	1037.0 (19.1)	5423.6 (100)
2000-01	5870.3 (67.24)	659.1 (7.5)	615.9 (7.1)	1585.6 (18.2)	8730.9 (100)
2005-06	9778.6 (63.94)	936.8 (6.1)	2060.9 (13.5)	2518.2 (16.5)	15294.5 (100)
2010-11	21721.7 (70.09)	1930.8 (6.2)	2196.6 (7.1)	5141.9 (16.6)	30991.0 (100)
2015-16	38995.2 (56.49)	8425.5 (12.2)	8921.4 (12.9)	12690.7 (18.4)	69032.7 (100)
2020-21	47660.84 (48.82)	14587 (14.9)	31068.28 (31.8)	11560.4 (11.8)	97616.8 (100)

Note: Figures in parentheses represent percentages of Revenue receipts.

Source: State Finances: A Study of Budgets, Reserve Bank of India, 1990-91 to 2020-21, Mumbai

Figure 4.3 Composition of Revenue Receipts



Source: State Finances: A Study of Budgets, Reserve Bank of India, 1990-91 to 2020-21, Mumbai

From figure, 60 percent of the state revenue receipts comprise the State's own tax revenue. Tax revenues constituted the major share (67 per cent) of the revenue receipts. During 2000-01, the rate of growth of tax revenue was 13 per cent compared to growth of 12 per cent in the previous year and that of 15 per cent each during 1996-97 and 1997-98. The slight improvement in tax collection during 2000-01 was attributable mainly to an increase in the collection of Sales Tax (13 per cent), State Excise (17 per cent) and Stamps and Registration (22 per cent) compared to the previous year. Though tax collection by the State improved, there was a heavy shortfall in the State's share of Central taxes and duties persistently during 1998-99 to 2000-01.

The implementation of Value Added Tax and the subsequent higher realisations in tax revenue can be accounted for the higher share of own tax revenue since 2005-06. The compensation made by the Centre for the loss of revenue incurred as a result of the introduction of VAT also helped to improve Revenue Receipts. However, the Own Tax Revenue to GSDP ratio dropped to 6.88 percent in 2013-14, down from 7.29 percent the previous year.

This was offset by a 1.20 percent increase in State Own Non-Tax Revenue to GSDP ratio and a 2.50 percent increase in Central Transfers to GSDP ratio. The decrease in State Own Tax Revenue can be attributed to a decrease in VAT revenue. The viability of VAT as a revenue generator began to deteriorate during this time period.

In 2011-12, the state's own tax revenue increased by more than 18%. The actual realisation of tax income during 2011-12 was Rs.25719 crores, which was more than 96 percent of the targeted revenue, compared to the budget estimate of Rs. 26641 crores. During 2006-07 (7.8%) and 2008-09, the state tax-to-gross domestic product ratio was on the rise (7.9 percent). Nevertheless, it fell below 8% in 2009-10 and then rebounded in the following years, reaching nearly 8% in 2011-12. According to a review of yearly Gross State Domestic Product sectoral growth rates, the tertiary sector grew at the fastest rate of 11.81 percent in 2011-12 at constant (2004-05) prices, trailed by the secondary sector (7 percent), and the primary sector (which grew at a negative rate) (-0.7 per cent). The tertiary sector recording a commendable growth rate clearly reflects the catalyst in the significant growth of tax revenue for 2011-12.

Own Tax Revenue (OTR) accounts for the majority of the State's revenue, while its percentage has decreased since 2013-14 in comparison with earlier periods, while that of own non - tax revenues and central taxes has been rising. The share of central taxes has gone up since 2015-16, after the enhanced share of the States in the divisible pool of Union taxes, consequent to the recommendations of the 14th Finance Commission. The increase in the share of central grants during 2014-15, is due to the change in the method of grant disbursement. Since 2014-15, the central share in Centrally Sponsored Schemes is routed through the State budgets instead of implementing agencies directly, as was done prior to 2014-15. But there is a fall in the share of central grants since 2014-15. Despite its falling share, its own tax revenue continues to be the major component of revenue receipts.

However, in 2016-17, there was no such one-time increase in the central devolution of taxes. The growth rate of revenue receipts fell sharply to 9.53 percent in 2016-17, as OTR growth remained modest after the shock of demonetisation.

Demonetisation gravely affected purchasing power and economic activity in Kerala, according to the study of the State Planning Board-appointed Committee on the Impact of Demonetisation on Kerala's Economy. Due to cash shortages, economic activity in areas such as coir, handloom, agriculture, and allied operations came to a halt. In the aftermath of demonetisation, the co-operative sector, with a long history of assisting Kerala's rural and urban economies, was on the verge of shutting down. The demand for goods and services remained unchanged. Demonetisation had a negative impact on investment, and a drop in economic growth was unavoidable. The implementation of demonetisation resulted in a drop in GSDP and revenue. The revenue-driven fiscal consolidation approach was seriously harmed by the unanticipated demonetisation policy. The cornerstone of

State revenues are rising demand reflected in consumer spending. When consumer spending slows, so do payments into government treasuries.

The fiscal condition of the state did not improve much in 2017-18. The declining trend persisted, with revenue receipts increasing by 9.8%. The ratio of total revenue receipts to gross state domestic product (GSDP) stayed at about 12%. Tax collection showed no signs of improvement with the advent of GST. However, an observation of the sectoral annual growth rates, shows a promising trend wherein the production sector had the highest annual GSDP growth rate of 6.52 percent in 2017-18 at constant (2011-12) prices, followed by the service sector (5.84 percent), and the agricultural sector (5.09 per cent). In 2017-18, the service sector grew by 10.75 percent, the primary sector by 10.88 percent, and the secondary sector by 9.14 percent at current prices.

Transitional difficulties, including the application of GST regulations and rates and the resulting confusion, as well as frequent changes in GST design by the GST Council, appear to have harmed revenue collection. The state government became eligible for GST compensation after failing to meet the aim of a 14 percent increase in GST collection. Other key tax items such as excise duty, stamps and registration, and motor vehicle tax grew faster than in previous years.

In 2018-19, Kerala’s economy grew at a rate of 7.5 percent (constant prices). In 2017-18, growth was 7.3 percent. The growth in 2018-19 was primarily attributable to an increase in the secondary sector, which increased by 8.8 percent (constant prices). In the same year, the tertiary sector rose by 8.4 percent. Consequent to the state's troubles during the last two years, the growth rate of the economy was very low. The satisfactory progress in the real sectors replicated itself in the state finances also with the total revenue growing by 11 percent against 9.79 percent in 2017-18. A striking aspect in 2016-17 and 2017-18 is that when the performance of the economy and state finances was mediocre, it was the sectors other than tertiary that clocked higher growth. In both years, the manufacturing sector displayed better performance when considering their growth rates. This could also be interpreted that it is the tertiary sector that shoulders the growing burden of the Kerala economy.

The Covid-19 pandemic had thrown the economy into disarray and put great strain on government finances, with Kerala's economy contracting in 2020-21 in comparison to the Budget Estimate for 2020-21. The GSDP shrinkage would have been worse if it had not been for the Rs.20,000 crore economic boost proposed at the start of the pandemic in March 2020. This budget proposal focused on the most disadvantaged while also benefiting the broader society and reducing the impact of Covid-19 on GSDP significantly. In Kerala, the trend of income generated in agriculture and allied sectors was unfavourable in 2018-19 and 2019-20. The growth rates were (-)2.09 percent and (-)5.09 percent, respectively. The sector grew at a rate of 3.38 percent in 2020-21, which is a major improvement over the prior year.

Revenue receipts as a percentage of GSDP climbed to around 12.21 percent in 2020-21, up from 10.94 percent in 2019-20. Although a negative growth of 5.3 percent was recorded in State Own Tax revenue and (-)40 percent in State Own Non-Tax revenue, the state's overall revenue has increased by 8.2 percent caused by a surge in central receipts in the form of deficit grants and GST compensations. The state's total revenue receipts grew by 7,392.16 crores in 2020-21.

4.3.2 States' Own Tax Revenue

The states' own taxes are the state's primary source of revenue. State Goods and Services Tax, Sales Tax on Petroleum and Alcohol for Human Consumption, Stamps and Registration Fees, State Excise Duties, Motor Vehicle Tax, and Land Revenue are the major sources of State Own Tax Revenue (SOTR) after the implementation of the Goods and Services Tax (GST).

Table No. 4.7 Composition of Own Tax Revenue

(Figures in percentage)

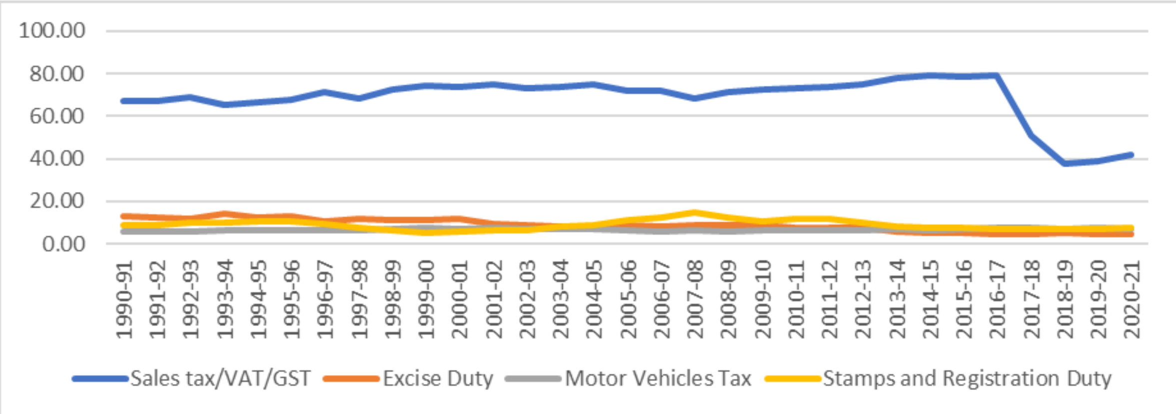
Year	Sales tax/VAT/GST	Excise Duty	Motor Vehicles Tax	Stamps and Registration Duty
1990-91	66.96	13.09	5.53	9.10
1991-92	67.03	12.56	5.66	9.09
1992-93	69.19	11.78	5.93	10.05
1993-94	65.39	14.11	6.44	9.82
1994-95	66.63	12.62	6.57	10.57
1995-96	67.58	13.28	6.59	10.46
1996-97	71.11	10.74	6.35	9.24
1997-98	68.52	12.07	6.70	7.36
1998-99	72.41	11.39	6.95	6.48
1999-00	74.20	11.38	7.33	5.38
2000-01	74.01	11.74	6.73	5.81
2001-02	74.97	9.14	7.63	6.66
2002-03	73.17	9.08	7.03	6.66
2003-04	74.07	8.49	7.23	8.46
2004-05	74.76	8.33	6.81	8.65
2005-06	71.97	8.60	6.43	11.26
2006-07	71.71	7.98	5.93	12.73
2007-08	68.56	8.55	6.24	14.84
2008-09	71.15	8.74	5.86	12.53
2009-10	72.46	8.59	6.42	10.76
2010-11	72.89	7.82	6.13	11.75
2011-12	73.64	7.32	6.17	11.61
2012-13	74.85	7.69	6.40	9.77
2013-14	77.78	6.07	6.75	8.11
2014-15	79.21	5.04	6.71	7.55
2015-16	78.82	5.04	7.22	7.38
2016-17	79.32	4.79	7.37	7.13
2017-18	51.03	4.65	7.61	7.17
2018-19	37.68	4.94	7.27	7.24
2019-20	39.05	4.48	7.39	7.18
2020-21	42.02	4.89	7.10	7.32

Note: The figures represent the shares of OTR Components in their Own Tax Revenue

Source: State Finances: A Study of Budgets, Reserve Bank of India, 1990-91 to 2020-21, Mumbai

From a fiscal correction perspective, what matters is the performance of the State's own revenues. The taxes included Sales tax, stamp duty and registration charges, State Excise Duty, Motor Vehicles Tax, Land revenue, Agricultural income tax and Electricity duty. The General Sales Tax levied on commodities other than petroleum products and alcoholic liquor for human consumption was subsumed into Value Added Tax (VAT) on intra - State trade of commodities from 2005-06. Since 1st July 2017, the goods and services, other than alcoholic liquor for human consumption are levied with Goods and Services Tax (GST) in accordance with Article 366 (12A) of the Constitution. At present, Sales Tax on petroleum products, Stamp Duty and Registration fees and Electricity Duty are outside the GST purview.

Figure 4.4: Components of Own Tax Revenue



Source: State Finances: A Study of Budgets, Reserve Bank of India, 1990-91 to 2020-21, Mumbai

Between 1990-91 and 1997-98, the tax revenue increased in terms of Sales tax, Motor Vehicles Tax and Stamps and Registration. This growth has been fuelled by the consumerist boom as an effect of the increased remittances from abroad and inflation due to the new economic policies. The total revenue receipts recorded a growth in 2003-05. However, a look into the composition of total revenue reveals that the better performance was because of the higher transfers from the Centre, which increased in 2003-05.

The state switched over to the Value Added Tax system in 2005. The reduction in sales tax in 2005-06 was the result of the transition. The revenue from stamp duty and registration fees increased in 2005-06 over 2004-05. The rates of conveyance were slashed by 50 percent in 2003. However, it resulted in a relatively low collection. Hence the government announced the reinstatement of the old rates. There was a consequent rush to register documents during 2004-05 with the collection registering an increase.

The situation of low tax returns improved from 2006-07 onwards as a result of the introduction of better tax administration measures by the Government. It introduced a series of measures to augment revenue mobilization such as 'Check-post takeovers', the introduction of E-governance in the check posts, a computerization drive in the taxation department, etc. The compensation granted by the Centre for the loss of revenue incurred consequent to the transition also improved the revenue. While 2009-10 was a year of low performance in almost all taxes 2010-11 recorded a better picture. Own Tax Revenue grew by 23.2 percent in 2010-11. It may be noted that while sales tax, excise duty, and stamps and registration realized substantial growth in 2010-11 over 2009-10, motor vehicles tax, electricity duty and 'others' recorded a decline.

The share of sales tax/VAT went up by 5.60 percent during 2011-12 to 2014-15 with an increase from 73.64 to 79.24 percent. The share of Stamp Duty and Registration fees declined by 4.06 percentage points due to a reduction in the stamp duty for registration in family deeds. and Excise Duty by 2.28 percentage points during 2011-12 to 2014-15. The share of the main component, Sales Tax, VAT/GST has risen since 2015-16, while that of Excise Duty has fallen. The share of Motor Vehicle Tax has increased, and it is the second largest component since 2015-16.

Sweeping changes in the fiscal set-up of the economy since 2017 have led to transformations in the trend of revenue of the state. The key change in the revenue receipts of the state in 2017 was the inclusion of the Value Added Tax, Central

Sales Tax and Luxury Tax under the magnanimous umbrella of Goods and Services Tax, with its introduction in July 2017. Till the 30^{th} of June, the revenue from VAT, CST and Luxury Tax was recorded separately under the respective accounts. With the introduction of GST, these accounts ceased to exist and were recorded as SGST, CGST and IGST. State Government implemented the Goods and Services Tax (GST) Act which became effective on 1 July 2017. According to GST (Compensation to States) Act 2017, Central Government will compensate the States for loss of revenue arising on account of the implementation of GST for a period of five years. The compensation payable to the State shall be calculated for every financial year after the receipt of final revenue figures, as audited by the Comptroller and Auditor General of India.

With the implementation of GST, almost 44 per cent of the States Own Tax Revenue has been subsumed, while only 28 per cent of the Central Taxes has been merged with GST. However, the apportionment of the rates has been 50:50 between the Centre and the States, despite the recommendations of the committee on Revenue Neutral Rates (RNR) in 2015, that the apportionment should be 40:60 between the Centre and States. Though the Centre have various other buoyant sources of revenue, the States have very few options left in the post-GST scenario. Tax rates of goods and services cannot be varied as these are recommended by the GST Council. The revenue performance of GST during the initial period has not been very encouraging for States including Kerala. This is attributed to the inbuilt bias in rate structure and implementation glitches.

The growth rate of revenue receipts had a marked decline to 9.53 per cent in 2016-17. Even though the pace of growth of revenue from commodity taxes has increased due to compensation, it is apparent that the GST has not resulted in the projected profits for a high consumption state like Kerala. This is primarily due to a decrease in the rate at which most commodities are taxed (which is now 9% for the States as opposed to 14.5 percent under VAT), apportionment of tax rates that are disadvantageous to the States, complicated return filing procedures, and the elimination of checkpoints without a prompt the implementation of the e-way bill.

The downward trend has continued since then reaching -2 percent in 2019-20. This trend could be attributed to various reasons that have tormented the State like the Ockhi and Floods of 2018. The chaos following the demonetisation and implementation of the Goods and Services Tax has acted as a catalyst. Distress in the agricultural incomes prevailed in the country and Kerala too was impacted.

In the years after the introduction of the Goods and Services Tax, tax revenue continues to occupy the major share of total revenue receipts.

Table No. 4.8 Composition of Revenue Receipts and its Share

(In Rupees Crores)

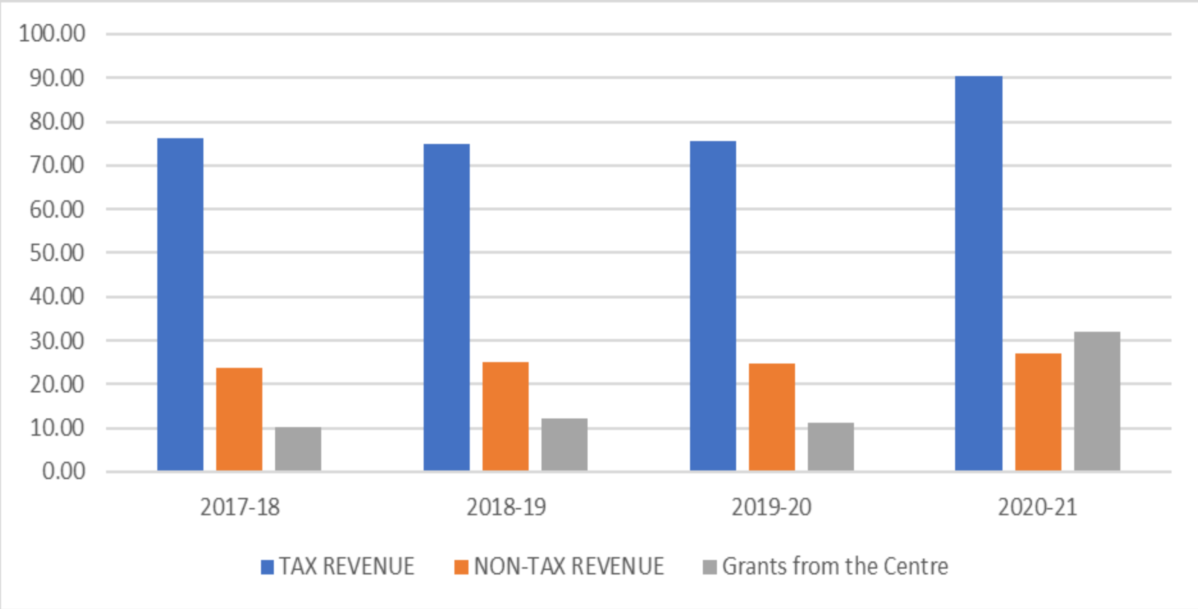
Year	Tax Revenue	Non-Tax Revenue	Central Transfers	Total Revenue
2017-18	63292.7 (76.2)	19727.45 (23.76)	8527.84 (10.27)	83020.14
2018-19	69682.3 (75.04)	23172.20 (24.95)	11388.96 (12.26)	92854.47
2019-20	74671.2 (75.39)	24371.4 (24.60)	11127.6 (11.23)	99042.6
2020-21	88354.8 (90.51)	26281.1 (26.92)	31068.28 (31.82)	97616.8

Note: Figures in Parentheses represent the share of the components in revenue receipts

Source: State Finances: A Study of Budgets, Reserve Bank of India, 2017-18 to 2020-21, Mumbai

However, there has been a decline in the share of tax revenue in a span of three years. The decline of the share of tax revenue from 76.24 percent to 73.95 percent is worrisome since this is after the introduction of GST, which was supposed to increase the revenue through tax.

Figure 4.5 Components of the Total Revenue of Kerala



Source: State Finances: A Study of Budgets, Reserve Bank of India, 2017-18 to 2020-21, Mumbai

The major component of tax revenue, the State's Own Tax Revenue, comprised 78.75 percent in 2017-18. Revenue from Sales Tax and VAT contributed 52.90 per cent of the total OTR, followed by 25.85 per cent from State Goods and Services Tax. Goods and Service Tax could not bring the expected gains into the state. The fall in tax rates at which most commodities are taxed, apportionment of tax rates unfavourable to the states, complex return filing procedures and doing away with check-posts with delay in implementing the e-way bills can be attributed to this poor performance. 7.88 per cent from Taxes on Vehicles, 7.43 per cent from Stamp Duties and Registration Fees, 4.82 per cent from State Excise Duties and 0.35 per cent from Land Revenue were the other components and its share in Own Tax Revenue in 2017-18.

Table No. 4.9 Growth Rate of Own Tax Revenue

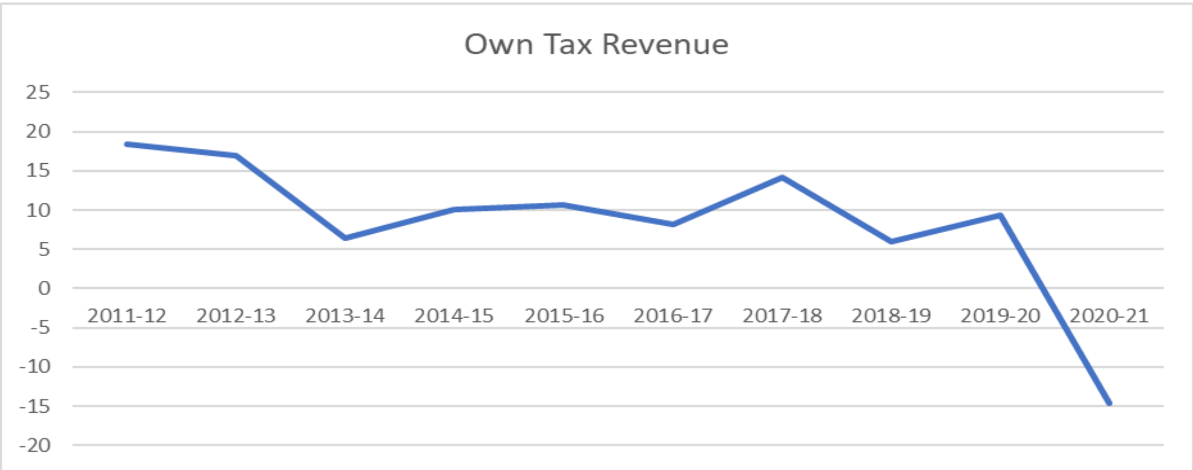
(In Rupees Crores)

Year	State's Own Tax Revenue	
	Amount	Growth Rate
2010-11	21721.69	
2011-12	25718.6	18.40
2012-13	30076.61	16.94
2013-14	31995.02	6.38
2014-15	35232.5	10.12
2015-16	38995.15	10.68
2016-17	42176.38	8.15
2017-18	48159.6	14.18
2018-19	51019.1	5.93
2019-20	55771.2	9.31
2020-21	47660.84	-14.54

Source: Budget in Brief, Government of Kerala, State Planning Board, 2012, 2022, Thiruvananthapuram

The growth rate of own tax revenue portrays a very dismal picture of tax mobilisation. The growth rate has fallen to alarming negative values over the last two years. This is attributed to the pandemic and the consequent slowdown of the economy.

Figure 4.6 Growth Rate of Own Tax Revenue in Kerala



Source: Budget in Brief, Government of Kerala, State Planning Board, 2012, 2022, Thiruvananthapuram

The figure above shows the growth rate of Own Tax Revenue in Total Revenue over the past decade. The trend of own tax revenue has been on a downward trend with a rapid decline in 2017-18. This rapid decline is attributed to the implementation of GST and the subsequent confusion and chaos. The own tax revenue has further declined to negative values. The trend of own tax revenue reflects the commodity tax trends.

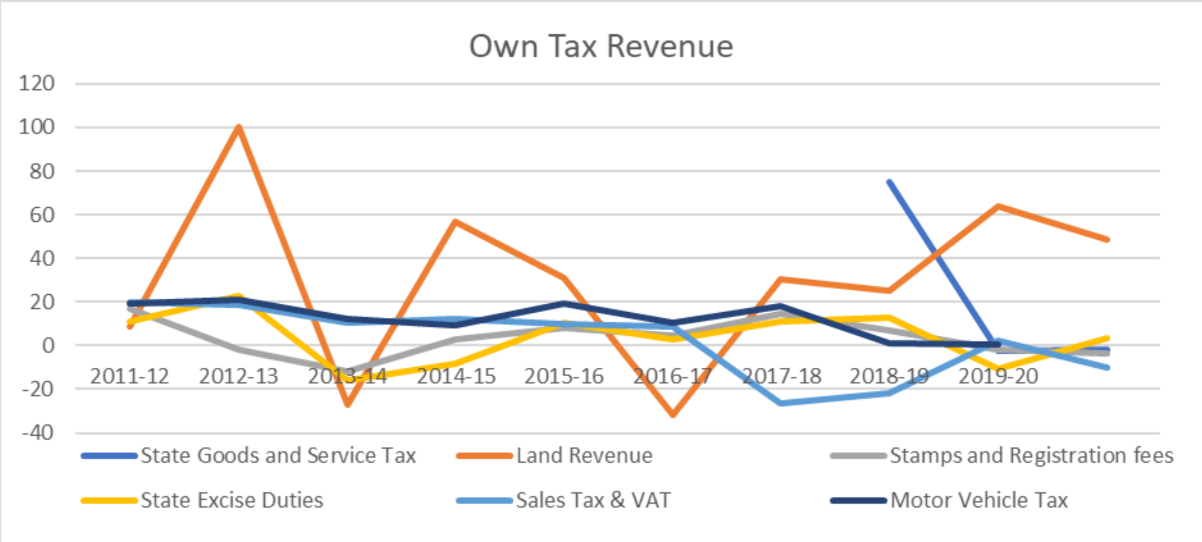
Table No. 4.10 Composition of Own Tax Revenue and its Growth Rate

Year	SGST	Land Revenue	Stamps and Registration fees	State Excise Duties	Sales Tax & VAT	Motor Vehicle Tax	Others	Total
2010-11		55.97	2552.49	1699.54	15833.11	1331.37	249.21	21721.69
2011-12	–	60.75 (8.54)	2986.56 (17)	1883.18 (10.80)	18938.83 (19.61)	1587.13 (19.21)	262.15 (5.19)	25718.6
2012-13	–	121.58 (100.13)	2938.37 (1.61)	2313.95 (22.87)	22511.09 (18.86)	1924.62 (21.26)	267 (1.85)	30076.61
2013-14	–	88.78 (26.97)	2593.29 (11.74)	1941.72 (16.08)	24885.25 (10.54)	2161.09 (12.28)	324.89 (21.68)	31995.02
2014-15	–	139.03 (56.60)	2659.02 (2.53)	1777.42 (-8.46)	27908.33 (12.14)	2364.95 (9.43)	383.75 (18.11)	35232.5
2015-16	–	182.28 (31.10)	2877.73 (8.22)	1964.15 (10.50)	30736.78 (10.13)	2814.3 (19)	419.91 (9.42)	38995.15
2016-17	–	124.15 (-31.89)	3006.59 (4.47)	2019.3 (2.80)	33453.49 (8.83)	3107.23 (10.40)	465.62 (10.88)	42176.38
2017-18	12007.69	162.16 (30.61)	3452.56 (14.83)	2240.42 (10.95)	24577.81 (26.53)	3662.85 (17.88)	356.12 (23.51)	46459.61
2018-19	21014.71 (75.01)	202.78 (25.04)	3693.17 (6.96)	2521.4 (12.54)	19225.75 (21.77)	3708.61 (1.24)	277.68 (22.02)	50644.1
2019-20	20446.95 (2.70)	332.42 (63.93)	3615.01 (-2.11)	2255.28 (10.55)	19649.64 (2.20)	3721.14 (0.33)	302.7 (9.01)	50323.14
2020-21	20028.31 (2.04)	493.35 (48.41)	3489.59 (-3.4)	2329.22 (3.27)	17689.17 (9.97)	3386.28 (-8.99)	244.92 (19.08)	47660.84

Source: Kerala State Budget, Government of Kerala, State Planning Board, 2010 to 2021, Thiruvananthapuram

The contribution of Land revenue to the growth of own tax revenue has been positive over the last five years amounting to an average growth rate of 27.87 percent. The contribution of land revenue to the States Own Tax Revenue has increased since 2015-16. The contribution made by the other components of SOTR, Stamps and Registration Fees and State Excise Duties, decreased drastically. But these two have very less influence on SOTR since their share was very less. The same is the case for Motor Vehicles tax and other taxes. In SOTR, land revenue had a lesser share in it whereas; Sales Tax/VAT has much more. That the Sales Tax/VAT contribution was declined, though it had the highest share in SOTR of the State. Thus, a small increase in the Sales Tax/VAT will have a huge impact on the revenue of the State whether any increase or decrease in it.

Figure 4.7 Growth Rate of the Components of Own Tax Revenue



Source: Kerala Economic Review, Government of Kerala, State Planning Board, 2021, Thiruvananthapuram

According to the analysis of SOTR, GST resulted in a 75.01 percent increase in 2018-19. This growth is not comparable because GST was only implemented for a portion of the year in 2017-18, resulting in a smaller number in 2017-18. As a result, growth in 2017-18 cannot be compared to growth in 2018-19. Only achievement did not meet the target. This demonstrates that, even in 2018-19, GST has not reached the status of a reliable income stream.

In 2018-19 receipts from State Goods and Services Tax contributed 41.49 per cent of the total SOTR, followed by 37.96 per cent from Sales Tax, 7.32 per cent from Taxes on Vehicles, 7.29 per cent from Stamp duties and registration fees, 4.98 per cent from State Excise Duties.

State Goods and Services Tax constituted the major share of the State's Own Tax resource. In 2019-20 receipts from State Goods and services tax contributed 40.63 per cent of the total SOTR, followed by 39.05 per cent from Sales Tax and VAT, 7.39 per cent from Taxes on Vehicles, 7.18 per cent from Stamp duties and registration fees, 4.48 per cent from State Excise Duties, and 0.66 per cent from Land Revenue and 0.60 per cent from other sources.

Over the years, a lion's share (87.52 to 93.03 percent) of revenue received from Kerala's own tax revenue source consisted of taxes on commodities and services. The remaining portion was contributed mainly by taxes on property and capital transactions. The contribution of tax on income (mainly agricultural income tax) was not only minuscule but also declined over the years.

Sales Tax / VAT is the second most important tax revenue source. Petroleum goods and international liquor taxes were not included in the GST. These are the only two goods where states still have the ability to set their own tax rates. However, as is widely known, even after the tax rates have been hiked, revenue from the sale of liquor remains stagnant. From 2016 to 2017, this phenomenon was observed. This indicates that the demand for imported liquor in Kerala is at a standstill. In 2017-18, sales tax income from the sale of foreign liquor was Rs.8870 crore, and in 2018-19, it was Rs.9616 crore, an increase of only 8.41%. The growth in the collection of ST on petroleum items is likewise minimal. In comparison to the collection of Rs7443 crore in 2017-18, the collection in 2018-19 was just Rs 8000 crore, a 7.48 percent increase. Stamps and registration fees, State Excise, and Vehicle Tax are the other important State Taxes. In comparison to the previous year, State Excise grew by 12.54 percent. The increase in the Motor Vehicle Tax has slowed in 2018-19. In comparison to the 17.89% increase in 2017-18, the increase in 2018-19 is only 1.25 percent.

In 2018-19, Stamps and Registration Fees grew by only 6.97 percent, compared to 14.82 percent in 2017-18. The main cause for the slow increase was the real estate market's stagnation. In 2018-19, the combined proportion of State

Excise, Vehicle Taxes, and Stamps and Registration was 19.59 percent, down from 20.14 percent in 2017-18. Since 2016-17, the trend in increase for other smaller tax categories has been negative. With a share of 0.95 percent, it continued to expand at a negative pace of -7.30 percent in 2018-19. The share of own tax revenue in the total tax revenue of the state has drastically declined over the decade, significantly since the introduction of the Goods and Services tax.

4.3.3 Non-Tax Revenue

Non-tax revenue includes all receipts other than taxes and capital receipts from debt issues and asset sales (Dasgupta 2011). Non-tax revenue includes payments made to the government that are compulsory and requited or voluntary whether required or not. Non-tax revenue is defined as payments made to the Government for which there is a quid pro quo. Important non-tax sources are all voluntary and required. In these cases, revenue is a by-product of goods, services or resources that the Government provides. They include revenue from assets, revenue from the sale of goods and services and revenue from the sale of licenses and permits for regulated activities.

Own non-tax revenue is mainly from General, Economic and Social Services. Though a substantial part of the revenue spending is in the social sector, the non-tax revenue from that sector is the least. The social sector mainly comprises education and public health. The principal sources of own non-tax revenues of the states are (i) dividends and profits on equity investments in state public sector enterprises (PSEs) and statutory corporations, and interest receipts on loans rendered to the same; (ii) user charges on various social and economic goods/services provided by the states; (iii) royalty on mines and minerals; (iv) forest revenue (both under economic services) and (v) general services (mainly state lotteries).

The state lotteries, which come under the miscellaneous category of general services have shown remarkable growth in their contribution towards total non-tax revenue accounting for nearly 50 percent of the revenue. This commendable feat is the result of the change in the lottery policy of the government and the introduction of the 'Karunya Lottery'.

Table No. 4.11 Share of Non-Tax Revenue to Gross State Domestic Product

(In Rupees Crores)

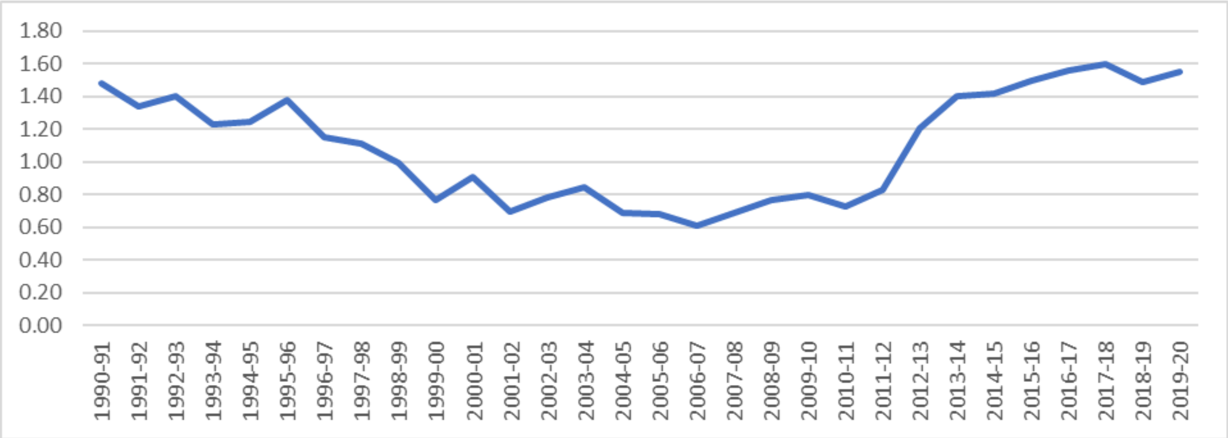
Year	Non-Tax Revenue	NTR/GSDP
1990-91	576.3	4.09
1995-96	1003.9	2.59
2000-01	1274.9	1.75
2005-06	2997.7	2.19
2010-11	4127.4	1.56
2015-16	17346.8	3.09
2020-21	26281.1	4.80

Note: NTR – Non-tax revenue

Source: State Finances: A Study of Budgets, Reserve Bank of India, 1990-91 to 2020-21, Mumbai

The share of non-tax revenue in GSDP has not changed drastically over the past three decades. The share fell from 4.09 percent in 1990-91 to 2.59 percent in 1995-96. The revenue from forests also showed a similar picture with its decline in growth rate from 38.38 percent to -9.08 percent during the same period. The non-tax revenue further declined in 2010-11. The major components of non-tax revenue comprise revenue from forests and lotteries.

Figure 4.8: Trend of Non-Tax Revenue to GSDP of Kerala



Source: State Finances: A Study of Budgets, Reserve Bank of India, 1990-91 to 2020-21, Mumbai

The year 2005-06 saw social development services emerging as a major contributor to no-tax revenue. When revenue from forests grew by 5.04 percent the social services grew by 12.7 percent. The percentage of non-tax revenue to Gross State Domestic Product has been low and falling. In 2006-07, the percentage of Non-Tax Revenue was 0.61 percent and continued to remain below 1 percent of GSDP till 2011-12. While the proportion of state non-tax revenues (NTR) to total own revenue steadily decreased over time due to declines in dividend, profit, and interest payments from cooperatives and public sector enterprises, which were out of proportion to the substantial amounts of loans and investments made available to them by the state governments. While non-tax revenue improved during 2013–14, the average annual growth rate per year revealed a falling pattern for state own tax revenues.

Table No. 4.12 Composition of Kerala's Own Non-Tax Revenue

Year	Interest Receipts	Dividends & Profits	General Service	Social Service	Economic Service
1990-91	10.26	1.29	40.15	14.89	33.41
1995-96	18.73	1.08	25.11	11.38	43.69
2000-01	5.59	1.92	38.39	11.65	42.46
2005-06	4.95	1.94	44.47	13.30	35.34
2010-11	8.88	3.91	49.32	11.98	25.91
2015-16	1.2	1.07	81.75	5.08	10.83
2020-21	1.13	1.08	85.45	4.81	7.5

Source: State Finances: A Study of Budgets, Reserve Bank of India, 1990-91 to 2020-21, Mumbai

The table presents the composition of own non-tax revenues of Kerala. While looking into the structure of non-tax revenue, a major portion is contributed by the forests and lottery. Between 1999-00 and 2008-09, the contribution by lottery recorded a sharp increase from 18.9 to 26.9 in 2007-08. Forest was the largest contributor, but its share declined drastically from 24.42 percent in 2004-05 to 14.20 percent in 2010-11.

Lotteries contributed about 25 per cent of the total non-tax revenue collected during 2005-06. The share of dividends and profits even though very low showed signs of improvement in 2005-06. In the following year, however, revenue from non-tax sources declined. Revenue from forests and debt services declined. Revenue from general services and economic services contributed nearly half of the own-nontax revenue. Lotteries contributed 23 percent of the non-tax revenue in 2006-07. 2007-08 showed an increase in non-tax revenue, except in revenue from the forest. The shares of lotteries, dividends and profits and interest payments marked significant increases.

The state's own non-tax revenue started showing signs of improvement since 2011-12. This is due to the contribution made to the general services, especially the lottery. Lotteries contributed 49.66 percent of the total non-tax revenue in 2011-12. However, the contribution to the State's Own-Tax Revenue to revenue receipts continues to be very less. With the increasing difference between revenue and expenditure, raising more non-tax revenue is unavoidable.

It is striking that revenue through dividends and profits contribute virtually nothing to the state's exchequer. Such a trend is unwarranted considering the huge amount of budgetary funds of states locked in Public Sector Enterprises and statutory corporations. The only manner public sector units help the states appear to be the payment of interest on loans and advances taken by them from the state government. But this too has declined in Kerala over time.

Though general services and economic services constituted a significant part of own non-tax revenues mobilised in Kerala over the years, a notable trend has been the consistent fall in the share of economic and social services and the rise in the share of general services. The non-tax revenue increased by 15.46 percent in 2017-18. However, the revenue for several other items like education, health, forest, roads and bridges, and other general economics services, excluding lotteries, recorded a sharp decline causing a negative growth rate in non-tax revenue.

The share of receipts from economic services decelerated sharply from 33.41 per cent of the non-tax revenue of the state in 1990-91 to a meagre 7.5 per cent in 2020-21. In the case of social services, the share declined from 14.89 per cent in 1990-91 to 4.81 per cent in 2020-21. On the other hand, the share of general services, i.e., revenue from the sale of state lotteries, increased from 40.14 per cent in 1990-91 to 44.47 per cent in 2005-06 to a whopping 85.45 per cent in 2020-21.

Table No. 4.13 Distribution of Non-Tax Revenue

Years	General Services	Social Service	Economic Service
2017-18	85.86	4.32	7.40
2018-19	83.57	5.40	8.79
2019-20	86.93	4.33	7.23

Source: State Finances: A Study of Budgets, Reserve Bank of India, 2017-18 to 2020-21, Mumbai

The share of non-tax revenue in the various services of the state has remained more or less stable in the three years. The general services maintain the maximum share of non-tax revenue accounting for an average of 85 percent over the past three years.

Analysis of the state tax revenue's ratio of the change to the growth rate of income reveals a decreasing trend from 1.93 (first period) to 1.09 (last period). It implies that even if tax revenue increases income does not follow. However, the usefulness of tax revenue's fit with the GSDP as a direct indicator of tax effort is questionable in a state like Kerala since it is a state with a significant flow of remittances. Additionally, it suggests the magnitude of tax leakages. This rate indicates that non-tax revenue has increased over the recent period. Due to higher yearly growth rates, it was negative for the first period (-3.45) but improved to 2.34 in the most recent period. Due to substantial fluctuation in those collections, the research shows an increase in some receipts, including those from electricity duty, income tax, state non-tax revenue, and others.

4.3.4 Central Transfers

The main components of central transfers to the state are tax devolution and grants. The growth rate in central transfers over the years shows considerable fluctuations. Article 280 of the Constitution mandates that a share of taxes be devolved according to the formula suggested by the Finance Commission. The Commission also advises using grants-in-aid in Article 275 of the constitution to help overcome revenue gaps created by tax devolution. Furthermore, the Finance Commission distributes sector-specific grants, which has been done away with by the 14th Finance Commission.

Table No. 4.14 Central Transfers of Kerala and Growth Rate

(In Rupees Crores)

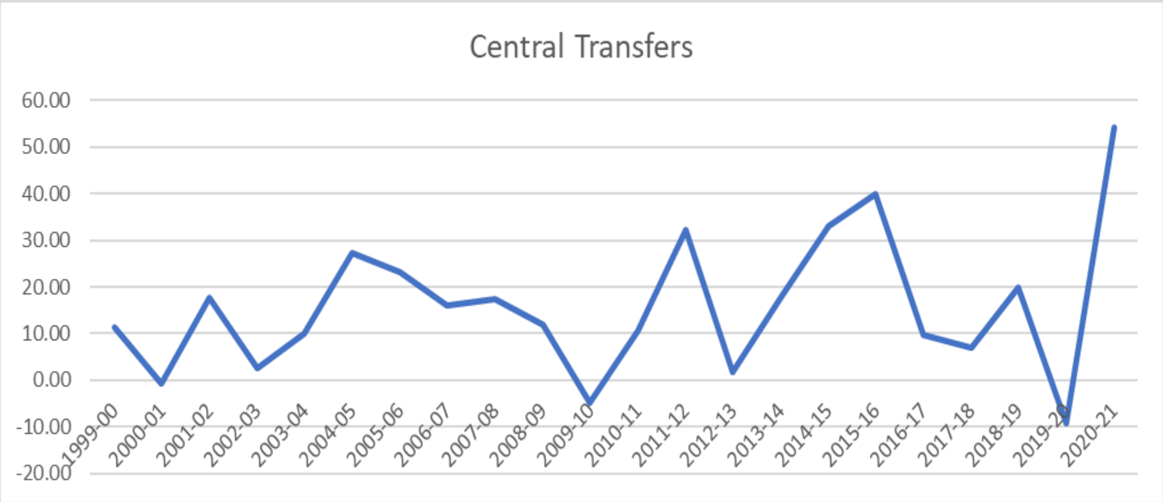
Year	Central Transfers	Growth Rate
1999-00	22175.3	
2000-01	22015.1	-0.72
2001-02	25895.9	17.63
2002-03	26535.9	2.47
2003-04	29196.1	10.02
2004-05	37177.5	27.34
2005-06	45791.3	23.17
2006-07	53072.3	15.90
2007-08	62282.9	17.35
2008-09	69627.1	11.79
2009-10	66321.6	-4.75
2010-11	73384.7	10.65
2011-12	96995.9	32.17
2012-13	98621.8	1.68
2013-14	116068.9	17.69
2014-15	154342.8	32.98
2015-16	216120.2	40.03
2016-17	237353.7	9.82
2017-18	253609.2	6.85
2018-19	304271.3	19.98
2019-20	276363.1	-9.17
2020-21	426286.8	54.25

Source: Kerala Economic Review, Government of Kerala, State Planning Board, 1999 to 2021, Thiruvananthapuram

The growth rate of central transfers shows a very haphazard trend over the years. During 2001-02 the share of central taxes and grants in aid to the State increased by Rs. 388.08 crores (17.6 percent) from Rs. 2201.51 crores in 2000-01 to Rs. 2589.59 crores in 2001-02 as against a decrease of Rs.16.02 crore (-0.72

percent) in 2000-01 from Rs.2217.53 crore in 1999-2000 to Rs.2201.51 crore in 2000-01. However, the trend of central transfer had been on the decline since 1990-91. The Eleventh Finance Commission adopted criteria for the devolution of resources to the state which was extremely unfavourable for the State of Kerala.

Figure 4.9 Growth Rate of Central Transfers of Kerala



Source: Kerala Economic Review, Government of Kerala, State Planning Board, 2002, 2013, 2021 Thiruvananthapuram

The compensation received by the state for the loss of revenue due to the implementation of the Value Added Tax resulted in the total transfers amounting to Rs.4578.11 crore in 2005-06 as against Rs.3717.75 crore in 2004-05. Central transfers during 2004-05 constituted 27.54 percent of the total revenue with a growth rate of 27.3 percent over the previous year. This increase was primarily due to grants from the National Calamity Contingency Fund towards drought relief and tsunami relief and receipts under Block funds for State plan schemes. Central transfers registered a growth rate of 15.9 percent during 2006-07, down from 23.2 percent in 2005-06. This was largely because of the improvement in VAT revenue which resulted in the state becoming ineligible for compensation.

The central transfers to Kerala were Rs. 6228.29 crores in 2007-08 as against Rs. 5307.23 crores received in 2006-07. The amount comprised Rs. 123.19 crores as compensation towards the shortfall in VAT collection of the state during

2007-08. Out of the total transfers for 2007-08, Rs. 4051.70 crore was the state share in central taxes and Rs. 2176.59 crore was grant-in-aid and other receipts from Central Government. The average annual growth rate of central transfers from 1997-98 to 2008-09 is 13.86 per cent.

The central transfers declined drastically in 2009-10 with it occupying a share of 25.47 percent of the revenue receipts recording a growth rate of -4.75. The absolute decline in the central transfers imposed a severe strain on state finance. The central transfers declined substantially in 2013-12 with the share in central taxes and central grants in aid decreasing.

The award of the Fourteenth Finance Commission, hailed as a major milestone, proposes to devolve over half of the divisible pool to the states. The states were given tax assignments for 42 percent of the Divisible Pool (compared to 32 percent by the 13th Finance Commission). Under Article 275(1), another 6.84 percent has been provided as grants-in-aid. The devolution formula was updated to include the 2011 population, and forest cover has been included in the horizontal sharing formula for the first time, emphasising the value of environmental sustainability. The share of Kerala increased from 2.341 percent to 2.50 percent. The huge leap in the growth rate of central transfers is credited to the Post Devolution Revenue Deficit Grant under the recommendations of the 14th Finance Commission. The following downward trend was reversed in 2018-19 due to the compensation paid for the loss in the implementation of GST as grants-in-aid.

The 15th Finance Commission recommended that the States have a stake in 41 percent share of the net tax proceeds of the Centre. As per the recommendations of the previous Commission, Kerala had a 2.5 percent share in the net shareable union tax proceeds. The net revenues of tax for a single year that the State of Kerala is entitled to decrease to 1.925 percent as per the recommendations of the 15th Finance Commission following a revision in the criterion for horizontal devolution.

4.4 Inferences

A significant financial difficulty for Kerala is the fall in the growth of its main sources of own tax revenue over time, including sales tax and VAT, State excise taxes and motor vehicle tax, stamps and registration fees, and motor vehicle tax.

1. Own revenue mobilisation in the State has continued to be below anticipated levels.
2. The tax revenue growth has remained very low dropping to dismal levels at -0.63 percent and -5.29 percent in 2019-20 and 2020-21 respectively
3. The introduction of GST has not brought any changes in the revenue mobilisation of the state. The increase in revenue mobilisation, as guaranteed with the introduction of GST, has not manifested in the case of Kerala. The reduction in the growth rate of sales tax/VAT since the implementation of GST is imminent. But it is worrisome that this reduction has not been compensated by SGST.
4. Kerala's primary challenges with regard to non-tax income mobilisation are the state's public sector firms' insignificant dividend and profit contributions and the steadily declining contribution of its economic and social services.
5. The above discussions confirm that the revenue receipts of the state of Kerala have been trotting on a downward slope with the State’s Own Revenue leading the descent falling from a growth rate of nearly 22 percent in 2010-11 to -14.12 percent in 2020-21.

The downtrend also coincides with years of natural calamities and pandemic. However, the period is also of drastic tax reforms that promised higher revenue mobilisation.

6. It is also inferred that the major fluctuations in the growth trajectory of state revenue were the years of fluctuations in central transfers to the state. It was also revealed that not only is the tertiary sector the major player in Kerala’s

economy but a poor performance by the tertiary sector would greatly pull down inflow into the state coffers.

Kerala is anticipated to confront three significant difficulties by 2024–2025: the tapering of revenue allocations to zero, the expiration of the GST Compensation Cess, and adherence to the fiscal deficit objective of 3% of GSDP. As a result, the State cannot afford any delays in mobilising its own resources. Priority must be given in the fiscal sphere to initiatives aimed at enhancing self-reliant resource generation.

CHAPTER V

FISCAL CRISIS IN KERALA: AN EXPLORATION

The chapter attempts to explore the fiscal health of Kerala based on the inferences made from the previous chapters. An attempt is also made to measure and identify the factors leading to a fiscal crisis.

5.1 Fiscal Crisis: Concept and National Trends

The economic strength of any country is assessed using the key financial indicators of the nation such as the fiscal deficit, revenue deficit and primary deficit. A fiscal deficit arises when the government spends more money than it brings in. It indicates the dependence of the government on borrowings and therefore the vulnerability of government finances. It is often referred to as the public sector borrowing requirement. The fiscal deficit of states is financed through market borrowings, loans from the Centre, special securities issued to National Social Security Fund, small savings, loans from financial institutions, reserve funds, loans from RBI (ways & means advances, overdrafts), and other deposits and advances.

Every budget conversation, whether it be for the central government or a state government, starts with an analysis of the trends in the gross fiscal deficit (GFD). According to Gulati (1991, 1993), the phrase "fiscal deficit" had "hardly ever figured in the language of fiscal policy in India." But during the 1990s, the phrase has become more popular. The word simply refers to the total amount of annual borrowing by governments needed to pay for all annual expenditures on capital and revenue accounts. The increased budget deficit is seen negatively since it could threaten macroeconomic stability, lead to inflationary pressures, raise interest rates, and stifle borrowing and investment in the private sector. Additionally, it jeopardizes the flexibility and stability of upcoming budgets. However, as Gulati noted, the burden of public debt is dependent on the direct and indirect budgetary benefits from the investments made possible by these borrowings.

“Any major crisis strikes those who are affected with great intensity. The distress is felt for protracted periods of time. While the effects are perceptible and often agonizingly painful, most crises defy quick or simple prognoses. A crisis most often does not respond to easy solutions either”. This was stated by the former Finance Minister of Kerala, Dr T M Thomas Issac in the preface of the White Paper on State Finance in 2016.

A fiscal crisis occurs when a government is unable to pay for its usual operations, such as administering other government duties, paying for the military, and providing social services. There are several ways that an economy can deal with a budgetary crisis, and they frequently cause suffering for many residents. A fiscal crisis prevents governments from balancing their budgets. They do not collect enough tax money to cover their expenses, and they are unable to obtain money by issuing unsecured government debt. The economy can already be in default due to servicing a sizable amount of debt. Governments typically start cutting funding as much as they can to release funds for essential services, however, this may not be sufficient to get the government's expenditure back on track.

A budgetary crisis usually has a snowball effect as it worsens. It becomes more difficult to address financial issues as dissatisfaction and concern grow with each warning indication that they are present. Governments frequently employ a range of contentious strategies to try to solve the issue during a budgetary crisis. To balance the budget, tax revenues must be increased, but this can be challenging when the public and some legislators oppose tax increases due to economic hardship. Cutting funding is frequently important to minimize costs but determining what to eliminate and by how much is a difficult issue.

The impact of fiscal deficit is a matter of dispute. Keynesian economists argue that large fiscal expenditure through deficit financing would improve the economy. While on the other hand, according to the Ricardians, the fiscal deficit would not make any difference since the consumers would reduce their expectation of an increase in taxes, which the government would impose on them to pay off the deficit. The neo-classicals, too, take a stand against fiscal deficit arguing that an increase in government expenditure would negatively affect savings and thereby, economic growth.

Even though the long-term effects of the deficit are a matter of debate, the immediate and short-term effects are unquestionable. Nonetheless, these consequences depend on the nature of the deficit. If the deficit arises because the government has engaged in extra spending projects like infrastructure spending, then those sectors chosen to receive the money would receive a short-term boost in operations and profitability. If the deficit arises because of a fall in the receipts to the government, either through tax cuts or a decline in business activity then no such stimulus takes place. Whether stimulus spending is desirable is also a subject of debate, but there can be no doubt that certain sectors benefit from it in the short run. In other words, a deficit arising due to capital expenditure is better than a deficit arising due to more revenue expenditure since expenditures on capital would earn returns which can cover the deficit.

A Fiscal Crisis in the State can be explained through Major Deficit Indicators like Revenue Deficit (RD), Fiscal Deficit (FD) and Primary Deficit (PD). Revenue Deficit means the excess of revenue expenditure over revenue receipts during the given fiscal year. Fiscal Deficit is the difference between the total revenue and total expenditure of the Government. It is an indicator of the total borrowing needed by the government. The Primary Deficit is defined as Fiscal Deficit minus interest payments.

Table No. 5.1 Trends of Union Fiscal Deficit and its share in GDP

(In rupees crores)

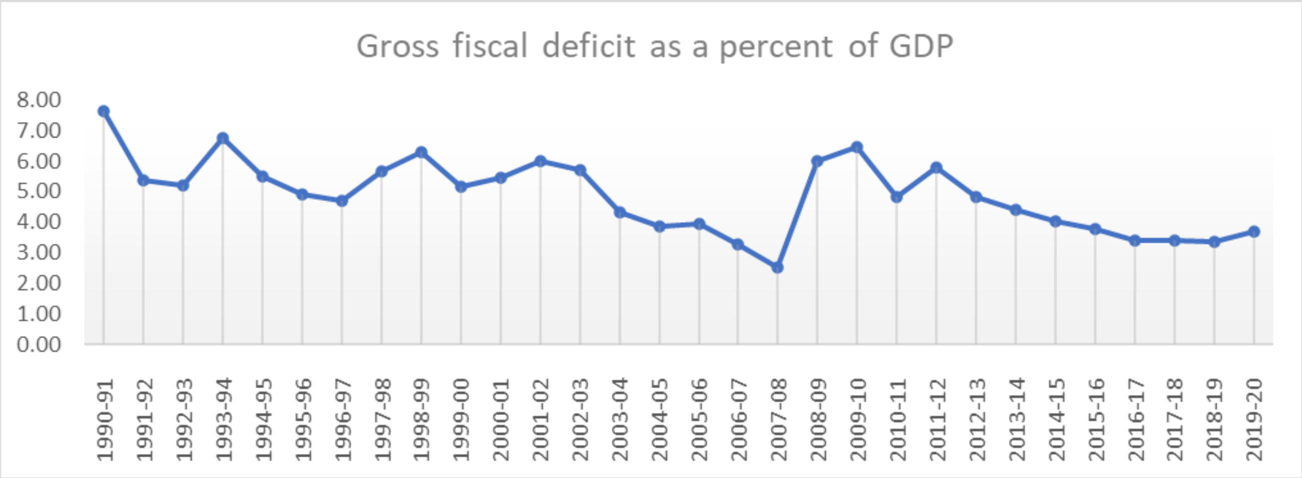
Year	Gross fiscal Deficit	Gross Fiscal Deficit to GDP
1990-91	4463.2	83.92
1991-92	3632.5	59.21
1992-93	4017.3	57.09
1993-94	6025.7	73.67
1994-95	5770.3	60.40
1995-96	6024.3	53.86
1996-97	6673.3	51.26
1997-98	8893.7	61.44
1998-99	11334.9	67.92
1999-00	10471.6	56.35
2000-01	11881.6	59.39
2001-02	14095.5	64.80
2002-03	14507.2	61.89
2003-04	12327.3	46.95
2004-05	12579.4	42.33
2005-06	14643.5	43.19
2006-07	14257.3	36.06
2007-08	12691.2	27.70
2008-09	33699.2	63.54
2009-10	41848.2	68.50
2010-11	37359.1	51.54
2011-12	51599	61.49
2012-13	49019	52.21
2013-14	50285.8	48.02
2014-15	51072.5	44.39
2015-16	53279.1	42.40
2016-17	53561.8	38.70
2017-18	59106.2	38.93
2018-19	64941.8	33.64
2019-20	76684.6	37.05

Note: The Gross Fiscal Deficit to GDP figures are in percentages

Source: Handbook of Statistics on Indian Economy, Reserve Bank of India, 1990-91 to 2020-21, Mumbai

The trend of fiscal deficit of the Central Government started showing a downward trend since 2003-04. This is due to the implementation of the Fiscal Responsibility and Budgetary Management (FRBM) Act. The key deficit indicators, viz., gross fiscal deficit, revenue deficit and primary deficit in 2003-04 were lower in comparison with the budget estimates as well as their levels in 2002-03. In 2003-04, the GFD and the PD were at their lowest level since 1990-91 in relation to GDP. More than half of the reduction in the gross fiscal deficit was due to the improvement in the revenue account.

Figure 5.1 Gross Fiscal Deficit as a Percent of GDP



Source: Handbook of Statistics on Indian Economy, Reserve Bank of India, 1990-91 to 2020-21, Mumbai

The sharp rise in the fiscal deficit in 2008-09 can be attributed to the global recession. The magnitude and complexity of its impact necessitated a deviation from the fiscal consolidation process embedded in the Fiscal Responsibility and Budgetary Management (FRBM) Act. The fiscal deficit target was revised from 2.5 percent of GDP to 6 percent of GDP. The challenge associated with the financing of higher deficits emerged in the form of managing large borrowing programmes of the Governments without disrupting the markets without exerting upward pressures on the interest rates. The net market borrowings of the Centre and the States jumped to Rs.4,02,302 crore (7.5 per cent of GDP) in 2008-09 from Rs.1,66,895 crore (3.5 per cent of GDP) in 2007- 08; special securities outside the market borrowing programme increased to Rs.95,942 crore in 2008- 09 from Rs.38,050 crore in 2007-08.

Fiscal deficit ratios in 2010-11 turned out to be better than envisaged in the then Union budget. Centre’s gross fiscal deficit (GFD) was 4.7 per cent of GDP against the 5.5 per cent budgeted. Compared with a GFD of 6.4 per cent of GDP in 2009-10, this was a huge swing. The improved fiscal position had a large temporary component arising from a business cycle upswing and one-off revenue gains. This resulted in an improvement in headline deficit numbers. The one-off gains and higher growth in nominal GDP of 20 per cent against the budgeted 12.5 per cent contributed largely to lower deficits, while the permanent component of fiscal consolidation was rather weak.

After an impressive period of fiscal consolidation during 2002-03 to 2007-08, there has been a marked deterioration in the fiscal position. The gross fiscal deficit (GFD)/GDP ratio that dropped from 5.9 per cent in 2002-03 to 2.5 per cent in 2007-08 is back at almost the same level. The improvement in revenue and primary deficits have been more than reversed. India’s fiscal deficit widened. The two main reasons for the deterioration of India’s fiscal deficits were, first, expenditures on subsidies rose from 1.3 per cent of GDP in 2005-06 to 2.4 per cent of GDP in 2011-12, which was impossible to finance in a sustainable manner within the revenue constraints. Second, resource mobilisation by the government was rather insufficient with a low tax/GDP ratio, poor non-tax revenue mobilisations and under-achieved disinvestment targets.

The year 2019-20 was struck by the COVID-19 pandemic and the resulting lockdown. With a major corporate tax regime reform that made India comparable to Asian peers, the fiscal policy stance became expansionary. This fiscal stimulus, along with the cyclically induced revenue shortfall, ultimately created a substantial deviation in the gross fiscal deficit (GFD) of the central government from the year's target of 4.6 percent of GDP versus 3.3 percent budgeted, entailing the use of the escape clause under the revised Fiscal Responsibility and Budget Management Act (FRBM). Subnational fiscal policy stayed within the norms of the Fiscal Responsibility Legislation (FRL), mainly through expenditure cuts in the face of severe revenue shortages, a trend also observed in earlier periods. However, automatic stabilisers, notably on the tax front, would have played a counter-cyclical role. Overall, there was much less fiscal room for the Centre to deal with COVID-19 than during the period of the global financial crisis.

The persistent fiscal deficits reveal that the total receipts of the Central Government have remained consistently below the total expenditures. The main cause of the deficits was the high growth of the current expenditures and the slow pace of revenue growth. The major deficit indicators at the national level indicate the existence of fiscal stress over the past three decades.

5.2 An Assessment of Fiscal Health in Kerala

The fiscal health of the state is studied by analysing the factors for fiscal crunch and the measures adopted by the government to mitigate the crisis. The extent of the crisis is also reflected in the sustainability of public debts.

Table No. 5.2 Revenue Receipts and Revenue Expenditure as a share of GSDP

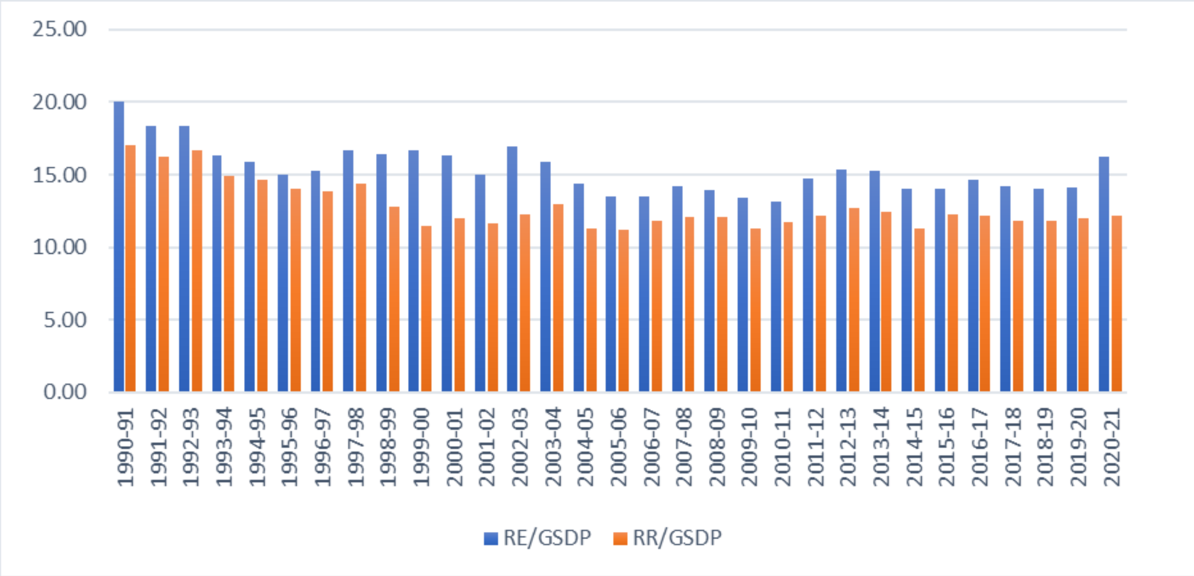
(In Rupees crores)

Year	Revenue Receipts	Revenue Expenditure	RR/GSDP	RE/GSDP
1990-91	2402.9	2824.95	17.04	20.04
1995-96	5423.6	5826.37	13.99	15.03
2000-01	8730.9	11878	12.02	16.35
2005-06	15294.5	18423.7	11.18	13.46
2010-11	30991.0	34664.81	11.75	13.14
2015-16	69032.7	78689.47	12.29	14.01
2020-21	97616.8	129837.4	12.21	16.24

Source: Kerala Economic Review, Government of Kerala, State Planning Board, 1990 to 2021, Thiruvananthapuram

A glance at table 5.2 conveys that revenue has never met the expenditure requirements of the state. The gap between revenue receipts and revenue expenditure was a constant feature of the State finances.

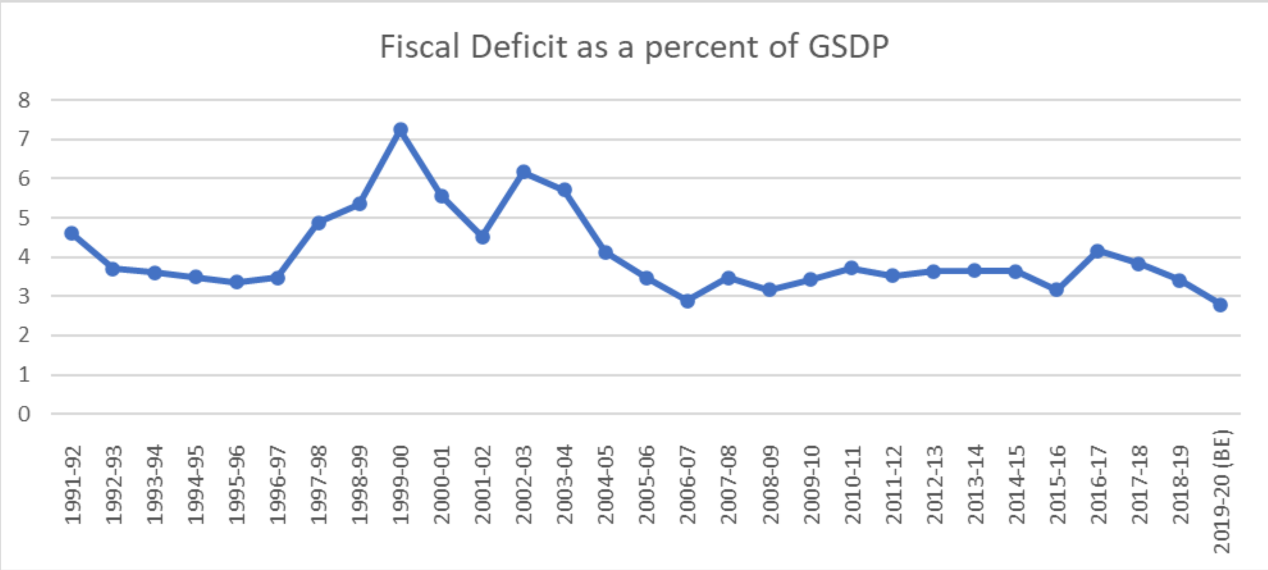
Figure 5.2 Revenue Expenditure and Revenue Receipts (as a percentage of GSDP)



Source: Kerala Economic Review, Government of Kerala, State Planning Board, 1990 to 2021, Thiruvananthapuram

The figure shows that the state has always experienced a fiscal crunch with revenue expenditure exceeding revenue receipts in all years. The revenue spending as a share of the GSDP was as high as 20 percent in 1990-91 and declined to 13.14 in 2010-11. 2010-11 recorded the lowest revenue expenditure to GSDP ratio which is attributed majorly to the deferment of pension and other committed payments to the next year. The payment of accrued payments from the previous years is reflected in 2011-12. The difference between the ratios of revenue expenditure and revenue receipts has recorded the highest in 2020-21. The fiscal crunch over the last five years is evident from the increasing revenue expenditure ratio since 2016-17 with the ratio of revenue receipts remaining around 12 percent of GSDP from 10.65 in 1980–1981 to 15.26 in 2013–2014, while the revenue receipts only saw a small increase from 12 to 12.40 for the corresponding years, indicating the financial strain. While the state's own tax revenue makes up just approximately 7.5 percent of the gross state domestic product (GSDP), the cost of pension salaries plus interest payments accounts for about 9.3 percent of the GSDP.

Figure 5.3 Fiscal Deficit as a percent of GSDP



Source: Budget in Brief, Government of Kerala, State Planning Board, 2002, 2013, 2021, Thiruvananthapuram

According to the exploration of revenue, expenditure, and subsidy trends in the previous chapter, Kerala's fiscal woes are not primarily due to high levels of spending, but rather to sluggish revenue growth and comparatively large subsidies. The fiscal position of a state as a whole can be determined by looking at its fiscal deficit, revenue deficit, and primary deficit. Between 2004-05 and 2009-10, Kerala's deficit indicators as a percentage of GSDP are shown to have continuously decreased, which can be directly attributed to the Fiscal Responsibility Budget Management Act (FRBM Act) effects as well as to an expansion of the economic base as described in the GSDP's growth trajectory. Though the state managed to reduce its major deficit indicators as a percentage of GSDP, the trend since 2010 indicates an increase in these indicators, particularly the revenue deficit and fiscal deficit, as a result of the recession's influence on the economy's reduction in GSDP.

The trend indicates that the revenue spending as a share of the GSDP has risen from 10.65 in 1981–1981 to 15.26 in 2013–2014, while the revenue receipts only saw a modest increase from 12 to 12.40 for the corresponding years, indicating the growing burden. While the state's own tax collection makes up just approximately 7.5 percent of the GSDP, the cost of pension salaries and interest payments as a proportion of GSDP amounts to about 9.3 percent. Another way to illustrate the scope of committed spending is to note that while revenue to the GSDP has consistently made up about 11% over the years, committed spending such as debt service, pension payments, and administrative services together made up 3.35 of the GSDP in the early years and doubled to about 6.07 in the following years.

Kerala's efforts to increase revenue have not been sufficient to cover the state's expanding expenditure needs. Kerala has been dealing with financial difficulties since the middle of the 1970s as a result of budgetary deficits in both its capital and revenue accounts. From 1983–1984, revenue shortfalls were nearly a constant part of Kerala's finances. In order to cover revenue shortfalls, the state has been using a growing amount of interest-bearing borrowed money. As a result, capital spending has been steadily declining, which has led to a decrease in the stock of capital assets and poor upkeep of those that are already in place.

As observed above, the Kerala economy witnessed persistent fiscal imbalance during the 1990s. The finances of the State Government underwent unprecedented pressures on account of factors like a sharp increase in non-development expenditures including interest payments, the poor financial performance of public sector undertakings and virtually no returns from investment in co-operatives, irrigation and other public investment. The overall revenue deficit in the year 1991-92 was due to the deficit in non-plan revenue. The inability of the State Government to generate budgetary savings was the reason behind the low rate of plan investment and low rate of economic growth. Moreover, the revenue raised in the name of plan expenditures was used to finance the increasing non-plan expenditures with the deficits showing large increases year after year. The unrestrained increase in non-plan expenditure had been the reason behind the State’s poor financial position.

The year 1992-93 marked the beginning of a new development phase for the economy with the launching of the Eighth five-year plan (1992-97). However, it was not possible to generate the necessary financial resources for the initiatives of the Government. Moreover, the revenue raised for planned expenditures was being used up for financing non-plan expenditures with revenue deficit increasing year after year. The revenue deficit as a percent of total revenue expenditure reached 17.26 in 1992-93. There were signs of the financial indicators of the State showcasing an optimistic turn in 1993. This performance could be read along with the resource mobilising measures implemented in the previous years. However, the revenue deficit continued to be large hindering budgetary savings.

The overall financial position of the State remained satisfactory over the period from 1994 to 1996 as an effect of the efficient mobilisation of additional resources. However, the revenue deficit continued to raise concerns. The problem aggravated thereafter with the State facing difficulty to meet its revenue requirements. According to the white paper on state finances (GoK 2001), the state government has never had any cash surplus since 1997. The government was not able to maintain its expenditure for the provision of social welfare. This crisis was exposed through the alarming levels of fiscal deficit and revenue deficit. The gross fiscal deficit to GSDP attained a peak in 1999-00. Revenue deficits and primary deficits too showed the same behaviour. Inadequate buoyancy in revenue receipts and rising level of revenue expenditure were the factors that contributed to the high deficit rates. There was increased dependence on borrowings under public accounts for the financing of fiscal deficit.

After showing marked improvement in 2001-02, revenue deficit and fiscal deficit recorded a leap from 4.5 in 2001-02 to 6.17 in 2002-03. In 2003-04, the overall fiscal health of the state improved as can be seen from the indicators. The revenue deficit came down to 3.59 percent of GSDP. The gross fiscal deficit also decreased, and the primary deficit too showed a similar trend. The fiscal deficit came down to 4.13 in 2004-05. Kerala brought down deficits inter alia by cutting back on plan outlays. It did so because the pressure to curtail deficits was enormous.

The Fiscal Responsibility and Budgetary Management Act (FRBMA) of the Centre, passed in 2003, required the Central government to bring down its fiscal deficit to 3 percent of GDP by 2007-08. The Centre also insists that the state governments should do the same as regards their fiscal deficit to GSDP ratio. Meanwhile, Kerala had also passed its own Fiscal Responsibility legislation, putting a cap on the FD/GSDP ratio at 2 percent. Accordingly, borrowing limits have been placed on the states.

The overall debt position of the state showed improvement during 2003-04 to 2005-06 but, at the cost of lowering expenditures and not by substantial revenue increase. The revenue deficit which was Rs.4118.66 crore in 2002-03 came down to Rs.3680.30 crore in 2003-04, to Rs.3668.92 crore in 2004-05, and further to Rs.3129 crore in 2005-06. The fiscal deficit came down from Rs.5539.05 crore in 2003-04 to Rs.4181.72 crore in 2005-06. The primary deficit also declined considerably. The primary deficit which was Rs.2210.75 crore in 2003-04, sharply declined to Rs.382 crore in 2005-06 (only 0.30% of GSDP).

The fiscal deficit declined in 2006-07 to Rs.3821.87 crore. This decline was because of a resumption of a plan expenditure which had been pruned in the Tenth Five Year Plan. The fiscal deficit increased in 2007-08 due to the implementation of pay commission recommendations, clearing up of arrears of social security pensions, contractor’s work bills and the significant increase in developmental spending.

The impacts of economic recession undermined the fiscal consolidation process of the State governments too. The revenue deficits and fiscal deficits of the Central Government sharply increased. The borrowing ceiling of the State Governments was raised from 3 percent to 4 percent of the GSDP. The revenue deficit to GSDP ratio had declined from 2.16 percent in 2007-08 to 1.85 percent in 2008-09, but it increased to previous levels of 2.18 percent in 2009-10. Similarly, there was a sharp increase in fiscal deficit to GSDP ratio to 3.42 percent in 2009-10. The quality of the fiscal deficit also deteriorated. While 58 percent of the fiscal deficit was utilized for financing revenue deficit in 2008-09, the share increased to 63 percent in 2009-10.

The State Government passed the Kerala Fiscal Responsibility (Amendment) Act, 2011 (Act 17 of 2011) on 8 November 2011. According to the Act, the Government is committed to:

- reduce the revenue deficit to ‘nil’ within a period of four years commencing on 1st April 2011 and ending on 31st March 2015 by reducing the revenue deficit in the years 2011-12, 2012-13, 2013-14 and 2014-15 in the order of 1.4 per cent, 0.9 per cent, 0.5 per cent and 0 per cent, respectively, of the GSDP.
- reduce the fiscal deficit to 3 per cent of the Gross State Domestic Product within a period of three years commencing on 1st April 2011 and ending with 31st March 2014 by maintaining the fiscal deficit at a level not exceeding 3.5 per cent of the Gross State Domestic Product in the years 2011-12 and 2012-13 and reducing it to 3 per cent in 2013-14.

(KER Accounts at a Glance 2010-11)

The fiscal deficit decreased to Rs. 7730.45 crores in 2010-11. The decrease in fiscal deficit by Rs.141.16 crore during the year over the previous year was the net effect of a decrease in revenue deficit, a decrease in non-debt capital receipts and an increase in capital expenditure and a decrease in the disbursement of loans and advances. The achievement about revenue and fiscal deficits was better than the targets fixed in the Medium-Term Fiscal Plan.

Kerala’s economy has faced a number of setbacks over the last four years. The demonetisation of high value currency notes in November 2016 and the problems associated with the implementation of the GST regime adversely impacted the economy in Kerala as they did in the rest of the country too. More importantly, the State has been hit by a series of natural disasters, including

Cyclone Ockhi in 2017, and severe floods resulting from extreme rainfall events in 2018 and 2019.

In 2018, Kerala was affected by the worst floods and landslides that it has experienced since 1924. The natural disaster of August 2018 resulted in the loss of lives and livelihoods and caused damage to houses, roads, and other infrastructure. The productive sectors of the economy including agriculture, industries, and tourism, suffered substantial losses.

The economic crisis in the Gulf countries has had adverse impacts on the Kerala economy, with a number of emigrant workers returning to the State and with a slowdown in the inflow of remittances. Finally, the Covid-19 outbreak in 2020 has adversely affected Kerala's economy as it has the rest of the world. In 2020-21, the revenue deficit is 2.51%, compared to 1.76 percent in 2019-20. Revenue Deficit would be expected to be 1.93 percent in 2021-22, according to Budget forecasts. The fiscal deficit to gross domestic product (GDP) ratio, which was 2.89 percent in 2019-20, has risen to 4.40 percent in 2020-21 and is expected to reach 3.5 percent in 2021-22. The current fiscal strain could remain as a result of the national and global economic slowdowns, as well as the corresponding expenditures to combat the pandemic.

The increasing fiscal deficit in absolute terms year on year has led to a steady accumulation of debt over the years. However, a significantly large portion of the borrowed funds is being used up for financing current expenditures rather than capital expenditures. Since controlling expenditures was arduous, the focus of the fiscal reform process should be to boost revenues. In order to augment the revenues, comprehensive tax reform measures were undertaken with the non-tax revenue side being almost ignored. Taxation, being the major source of the revenues of the Central Government, became the main target of the fiscal reforms to tackle the deficits.

The White Paper, presented in 2016, attempted to assess Kerala's state finances objectively. One might infer the weak budgetary position of Kerala from the White Paper itself. The state's troubled financial situation made it difficult for the economy to maintain the level of development it had made over the years. As a result, the "Kerala Model of Development" has gained recognition both nationally and internationally for the development patterns seen in Kerala. The industrialised countries' development is comparable to those with high literacy rates, high life expectancy at birth, low infant mortality rate, and low maternal mortality rate. According to the white paper on state finances (GoK 2001), the state government has never had any cash surplus since 1997.

The governments have not been able to maintain their expenditure for the provision of social welfare. This crisis was exposed through the alarming levels of fiscal deficit and revenue deficit. Inadequate buoyancy in revenue receipts and rising level of revenue expenditure were the factors that contributed to the high deficit rates. There was increased dependence on borrowings under public accounts for the financing of fiscal deficit. The fiscal crisis in the State, in general, is because of raising expenditures and shrinking revenue. The gauge the magnitude of the financial crisis it is imperative to analyse the deficit indicators of the state.

5.3 An Evaluation of the Deficit Indicators

The fiscal health of an economy is depicted through the extent of the fiscal deficit, its components, and the pattern of financing the deficit. Liabilities and debt owed by a State also speak of the fiscal condition on its own.

Table No. 5.3 Major Deficit Indicators

(In Rupees Crores)

Year	Revenue Deficit (RD)		Fiscal Deficit (FD)		Primary Deficit (PD)	
	Amount	Percentage of GSDP	Amount	Percentage of GSDP	Amount	Percentage of GSDP
2001-02	2605.64	3.28	3269.4	4.12	779.94	0.98
2002-03	4122.16	4.53	4990.05	5.49	2043.28	2.25
2003-04	3680.3	3.83	5539.05	5.77	-2210.75	-2.3
2004-05	3668.92	3.66	4451.9	4.44	-839.36	-0.84
2005-06	3129.16	2.8	4181.72	3.7	-382	0.3
2006-07	2637.94	1.99	3821.87	2.88	367.83	0.28
2007-08	3784.84	2.16	6100.2	3.48	-1770.56	-1.01
2008-09	3711.68	1.83	6346.22	3.13	-1686.52	-0.83
2009-10	5022.98	2.17	7871.61	3.39	-2579.12	-1.11
2010-11	3673.87	1.36	7730.45	2.87	-2040.8	-0.76
2011-12	8034.26	2.6	12814.77	4.16	-6521.17	-2.12
2012-13	9351.44	2.46	15002.46	3.95	7797.66	2.06
2013-14	11308.56	2.63	16944.13	3.94	8678.74	2.02
2014-15	13795.96	2.78	18641.14	3.75	8872.14	1.79
2015-16	9657	1.64	17818	3.02	6078	1.19
2016-17	15484	2.51	26448	4.29	14332	2.26
2017-18	16928	2.46	26837	3.91	11717	1.67
2018-19	17462	2.22	26958	3.4	10210	1.30
2019-20	14495	1.76	23837	2.8	4623	0.56
2020-21	20064	2.51	35204	4.4	14228	1.78

Source: Kerala Economic Review, Government of Kerala, State Planning Board, 2009, 2015 and 2021, Thiruvananthapuram

The state's revenue deficit has been expanding in recent years compared to earlier eras. Fiscal deficit and revenue deficit values increased in the years following 2001-02 due to the settlement of various outstanding claims including that of dearness allowances. A maximum of 4.53 percent of GSDP was the revenue deficit in 2003. With concerted efforts made by the state government, through the implementation of the Kerala Fiscal Responsibility Act in 2003, the indicators showed marked improvement. During the years 2003–2004 to 2005–2006, the state's overall debt position improved, but at the expense of lower spending and not due to improved revenue mobilisation. From Rs. 4990.05 crores in 2002-2003 to

Rs. 5539.05 crores in 2003-2004, Rs. 4451.9 crores in 2004-2005, and finally Rs. 4181.72 crores in 2005-2006, the fiscal deficit decreased. The primary deficit also significantly decreased. The primary deficit fell precipitously from Rs. 2210.75 crores in 2003-04. In 2007–2008, the fiscal deficit rose. The execution of the pay commission's recommendations, the payment of social security pension arrears, contractor work invoices, and a considerable rise in developmental spending were all factors in the year's increased fiscal deficit. Throughout the tenure of the Tenth Finance Commission, the payments underwent a significant reduction. Even then, the primary deficit decreased and even showed a surplus.

The gains in major deficit indicators achieved during the period 2002–2003 to 2010–11 could not be sustained in 2011–2012 and 2012–2013 despite several attempts at fiscal reduction due to different foreign and domestic pressures. The impact of the slowdown on all sectors of the economy and its negative pressure on growth is still apparent, even if the global and national economies had begun to show indications of recovery from the financial crisis. Along with this, the government's spending has increased due to the ongoing high level of inflation. Therefore, fiscal consolidation goals for 2011–12 and 2012–13 were not met.

In 2011, the state's fiscal deficit to GSDP ratio was 2.87 percent, almost a reduction in the revenue deficit. However, it jumped significantly to 4.16 the next year. Then, it increased by more than 2 percent yearly. Because of this, the state's revenue deficit is getting worse currently. Additionally, the state's fiscal deficit from 2001 to 2004 was unusually significant, representing more than 5 percent of GSDP. Later, it decreased by less than 4 percent, and most intriguingly, in 2007 and 2011, it drops to below 3 percent. This indicated that Kerala managed to achieve its budgetary objective of keeping the fiscal deficit at or below 3 percent of GSDP. After 2011, the fiscal deficit increased by more than 3.50 percent, particularly between 2012 and 2015. Additionally, throughout the three years, the State's Primary Deficit has improved. That indicates Kerala has a large fiscal deficit even when the interest payments are reduced. The State's revenue shortfall, which is the difference between its revenue expenditures and income inflows, changed from year to year from 2006 to 2011. It increased steadily from 2006–2007 to 2009–2010, except for a slight drop in 2008–2009. In contrast, it had a considerable decline in 2010–11. The revenue deficit fell by 26.9 percent during the 2010–2011 fiscal year because of a growth rate of 18.7 percent in revenue receipts compared to a growth rate of 11.3 percent in revenue spending.

In contrast to the fiscal deficit, which increased to 2.38 percent from 4.24 percent over this time, the revenue deficit, which was 3.51 percent of GSDP in 2002-03, reduced to 1.13 percent in 2010–11. However, during the period, the revenue mobilisation boom was insufficient to maintain successful budgetary performance. Between 2011–12 and 2015–16, the ratio of the revenue deficit and the fiscal deficit to the gross domestic product (GSDP) ranged from 2.2 to 1.73 percent and 3.52 to 3.19 percent, respectively. The fact that the Central Government had granted the post-devolution revenue deficit grant of Rs. 4640 crores allowed the revenue deficit and fiscal deficit ratio to GSDP to be maintained at this level during 2015–16. However, the fiscal indicators experienced a decline in 2016–17, for a number of reasons. The revenue and fiscal deficit percentages decreased to levels of 2.51 and 4.29 percent of GSDP, respectively. The unanticipated currency-scrapping exercise had a profoundly negative impact on the state's ability to generate money. The implementation of the 10th pay adjustment, the clearing of considerable contingent obligations from the prior years, and the payment of social security pensions with long-overdue arrears were other significant contributors to the decline in fiscal indicators during 2016–17.

Between 2015–16 and 2018–19, the State's revenue deficit widened steadily. The state's revenue deficit in 2019–20 was Rs. 2,967 crores lower than it was in 2018–19. Despite a Rs. 2,629 crores drop in revenue receipts, a Rs. 5,596 crores drop in revenue spending allowed for an improvement in the revenue deficit. Conversely, it climbed by Rs.11,334.25 crores (78.19 percent) in the following fiscal year. Even though the state tax revenues climbed by 8.19 percent, the spike in the revenue deficit was mostly caused by a 17.88 percent surge in revenue expenditures, which was more than twice the growth in revenue receipts. The fiscal deficit was 71.87 percent in 2020-21, the highest in the past five years.

Kerala has faced deficits in all years. The ratio of revenue deficit to revenue expenditure was a staggering 40 percent for the first six months of 2020-21. The figure is alarming since even during the worst financial years, this ratio had not gone beyond 28 percent. The outstanding internal debt has increased by 14.77 percent in 2020-21 alone and the ratio of debt in terms of revenue receipts has increased to 310.06 percent in 2020-21. The existing fiscal crisis is expected to persist because of the lurking economic slowdown of the national economy and the increased expenditure due to the pandemic.

The revenue deficit as a proportion of fiscal deficit illustrates the amount of revenue expenditures that were funded by borrowing overall. This ratio was zero from 1982 to 1984, but it quickly climbed to 54.03 percent in the second period and to 65.12 percent in the final quarter. Decreased interest payments, which result in the use of borrowed funds for other purposes and vice versa, are the cause of the primary deficit's rise. However, the primary deficit as a share of GSDP has increased from 0.98 to 1.78 percent. The trend indicates a negative sign for the majority of years since 1990-91, in contrast to the requirement that there should be a positive primary revenue balance. Additionally, Kerala has a larger income deficit than the majority of other Indian states, with the exceptions of West Bengal, Punjab, and Jammu & Kashmir.

Table No. 5.4 Period-wise average Revenue Deficit, Fiscal Deficit and Primary Deficit as a percent of GSDP

(Figures in Percentages)

Periods	Revenue Deficit	Fiscal Deficit	Primary Deficit
2001-06	3.6	4.7	0.1
2006-11	1.9	3.1	-0.6
2011-16	2.4	3.7	0.9
2016-21	2.2	3.7	1.5

Source: Kerala Economic Review, Government of Kerala, State Planning Board, 2009, 2015 and 2021, Thiruvananthapuram

The average revenue deficit as a percentage of the State's GSDP from 2006 to 2011 was lower than it was in the earlier and succeeding periods. Additionally, the average fiscal deficit as a percentage of GSDP is almost or approaching 3 percent, which was relatively low during the 2006–2011 period. Additionally, the average primary deficit as a percentage of GSDP displays a very high positive sign from 2011 to 2016 and a very strong negative sign from 2006 to 2011. This indicates that the State's fiscal management from 2006 to 2011 was significantly better than it had been during any previous time. 2001–2006 and 2011–2016 time periods both demonstrate poor financial management. Thus, the State's budget crisis is a result of inadequate financial management over the years 2001–15. The State has been experiencing a fiscal crisis since 2012–2013. A disturbing fact from the above values is that the deficit targets set forth under the FRBM Act by the government are far from achieved.

Table No. 5.5 Decomposition of Gross Fiscal Deficit

(In Rupees Crores)

Year	Revenue deficit	Capital Outlay	Net Loans	Fiscal Deficit
1990-91	422 (52.8)	256 (32.1)	120.5 (15.1)	798.5
1995-96	402.8 (30.9)	563.5 (43.3)	336.4 (25.8)	1302.7
2000-01	3147.1 (81.2)	577.2 (14.9)	153.6 (4.0)	3877.8
2005-06	3129 (74.8)	817 (19.5)	235 (5.6)	4181
2010-11	3674 (47.5)	3339 (43.2)	718 (9.3)	7731
2015-16	9657 (54.2)	7472 (41.9)	689 (3.9)	17818
2020-21	25829.5 (63.0)	12855.5 (31.4)	2284.69 (5.6)	40969.69

Note: Figures in parentheses represent the percentage of fiscal deficit

Source: State Finances: A Study of Budgets, Reserve Bank of India, 1990-91 to 2020-21, Mumbai

Net lending which is the net of lending and borrowing of the state accounted for a small portion of the fiscal deficit.

The revenue shortfall is the main contributor to the Gross Fiscal Deficit, as can be seen from the table. This implies that in order to meet its ongoing expenses or fund revenue-related spending, the government is compelled to borrow. It is to be noted, in this situation, that revenue expenditure will not boost the state's capacity for production or loan repayment. Instead, it will cause the crisis to worsen and the interest payments to grow steadily larger. After 2000, the capital expenditure financed by borrowing is less than half the income deficit with an exception of a few years. This indicates that as the revenue deficit increased, capital expenditures increased while borrowing for productive purposes decreased.

The table clearly illustrates the components of gross fiscal deficit as a percentage of the whole. The table shows that capital expenditure, which made up more than 30 percent in the 1990s, decreased to 20 percent or less in the next decade. This shows that just 20 percent of the borrowed money is used for profitable endeavours. The main purpose of the borrowed funds is to cover the difference between recurrent revenue expenditures and revenue receipts. Less than 10 percent of the total sum was formed by net loans over since 1999-2000.

Gross fiscal deficit is the most important indicator of rising public debt. An analysis of the financing of gross fiscal deficit is done below. Major of the items of financing were market borrowings (net), loans from the centre (net), National Small Savings Fund (NSSF) and others. Other items constitute more than half of the items of finance. The others include loans from the Life Insurance Corporation of India (LIC), National Bank for Agriculture and Rural Development (NABARD), National Co-operative Development Co-operation (NCDC), State Bank of India (SBI) and other banks, reserve funds, deposits and advances and miscellaneous.

The State Government primarily finances its deficit through market borrowings, followed by provident funds, micro-savings, etc. Both of these are low-cost borrowings when compared to other debt items. However, the pace of growth of debt derived from provident funds, modest savings, etc. is substantially greater than that derived from market loans. Provident funds, minor savings, etc. are all a component of the public account, but it is not wise to rely too heavily on them for borrowing.

Table No. 5.6 Financing of Gross Fiscal Deficit of Kerala in Percentages

(Figures in Percentages)

Year	Market Borrowings	Loans from the Centre	NSSF	Others	GFD
1990-91	19.05	33.79	-	47.16	100
1995-96	26.53	39.33	-	34.15	100
2000-01	13.96	5.13	-	80.91	100
2005-06	34.82	0.17	63.36	1.67	100
2010-11	61.70	0.70	0.54	37.06	100
2015-16	72.32	0.95	4.10	22.63	100
2020-21	56.30	15.36	5.95	22.39	100

Source: State Finances: A Study of Budgets, Reserve Bank of India, 1990-91 to 2020-21, Mumbai

The financing of Kerala's gross fiscal deficit and its percentage breakdown is shown in the table. It is obvious that up to 2001–2002, the components of funding gross fiscal deficit consisted of market borrowings, loans from the centre, and other sources. From 2002-2003, NSSF also contributed to the funding of Kerala's fiscal deficit. Over time, there has been a decline in the proportion of loans from the centre. Since expensive loans are being used in their place, this is undesirable. Table 5.6 makes it evident that market borrowings are playing a larger role in funding gross fiscal deficit in recent years. Given that the interest rates on these loans are higher, this is not a positive indicator. This would cause higher interest payments. For the past five years, the State Government's primary sources of funding for the fiscal deficit have been market borrowings and net accretions in Public Accounts (particularly in Small Savings, PF, etc.). Through treasuries, the State Government has been collecting deposits from its workers, pensioners, institutions, and the general public. The State Government's budget deficit was funded in part by net market borrowing (Rs. 23,066 crores) and net additions to small savings, pension funds, etc. (Rs. 11,547.96 crores).

Since not all liabilities have the same interest rate, one of the principles of effective debt management is to use different debt instruments in ascending order of interest rate, making the most of the debt instrument with the lowest interest rate first, and so on. Because the latter source had lower interest rates, replacing Plan loans from the GoI with market borrowings also contributed to maintaining lower interest rates. As a result, market borrowings grew from roughly 17.5 percent of total outstanding liabilities at the end of 2001-2002 to more than 50 percent at the end of 2020-21. Small savings loans (NSSF), which are likely the most expensive in terms of interest charges, account for a portion of all loans. Naturally, the less expensive state's own modest savings plan is more heavily relied upon. This has created fiscal flexibility to the degree that interest payments as a percentage of revenue expenditures have decreased.

5.4 Off-budget Borrowing

With the implementation of the FRBM Act along with limits for borrowing set by the Centre, states are now forced to explore other ways to raise required funds. The state of Kerala has resorted to the use of off-budget borrowings for the same.

Off-budget borrowing describes the State Government's use of financial resources to cover expenditure needs in a specific year or years that are not reflected in the budget for that year or those years in order to apply for grants or appropriations. Therefore, these borrowings are not subject to legislative oversight. They are funded by departmental commercial undertakings or public sector businesses that are owned or managed by the State Government and raise funds by borrowing on the market on the State Government's behalf. However, the State Government must use its budget to pay back and service the debt.

According to the Kerala Infrastructure Investment Fund Act, a statutory body called the Kerala Infrastructure Investment Fund Board (KIIFB) operates under the oversight of the State Government to manage the Kerala Infrastructure Investment Fund and provide funding for important and substantial infrastructure projects in Kerala. According to the Act, the State Government guarantees the repayment of principal and interest on loans raised by the Kerala Infrastructure Investment Fund Board. In the coming years, the Kerala Infrastructure Investment Fund Board (KIIFB) intends to raise Rs. 50,000 crores from the market. The government has updated the KIIFB structure in what appears to be a planned move to draw in private investments. The project, which is now a body corporate, may show that infrastructure development of a certain size can be accomplished largely without the use of user fees.

It will encourage investment in two ways: first, by obtaining funds from the market in the form of bonds and guarantees and using them to fund initiatives that will improve the physical and social infrastructure of the state, which will in turn entice private investment. Second, it will aid in the establishment of an asset management firm that will create the framework for investigating projects involving public-private partnerships and new resource mobilisation techniques, such as alternative investment funds, infrastructure debt funds, and infrastructure investment trusts.

Through annual budgetary provisions under the capital account, the State Government allocates petroleum cess and a portion of Motor Vehicle Tax (MVT) collected to KIIFB each year. The share of MVT that must be paid is 10 percent for the first year (2016–17), and it increases by 10 percent each subsequent year, reaching 50 percent of the tax in the fifth year, in accordance with Section 8 of the KIIF (Amendment) Act, 2016. Different types of bonds will also be used to mobilise resources from the domestic market, and an alternative investment fund has been developed to attract foreign investment for the specified project. The Kerala government established KIIFB as a corporation to raise money for infrastructure projects around the state. All firms that are qualified to accept foreign direct investment, or FDI, are permitted to borrow abroad in accordance with the

Reserve Bank of India's (RBI) External Commercial Borrowings (ECB) standards. As a result, KIIFB's masala bonds are an external borrowing.

The issue with the KIIFB-led growth strategy is that a portion of the borrowed funds will be used for initiatives like affordable housing that will not generate income. KSRTC's resurrection is expected to cost around Rs 3000 crore, despite the fact that prior attempts at its revival have never yielded any positive outcomes. The KIIFB itself had a dismal performance in 2016–17 and 2017–18, falling far short of its budgetary and revenue mobilisation goals.

The Kerala government borrowed Rs. 9,273.24 crore off-budget in 2020–21 through a number of different businesses. Additionally, there were budgeted liabilities of Rs. 3,08,386.01 crore as on March 31, 2021. From financial institutions, KIIFB borrowed Rs. 5,036.61 crores till 2019–20, and it paid interest on those borrowings totalling Rs. 533.21 crores until 2019–20.

The repayment of these debts is, however, by utilising petroleum cess and a portion of Motor Vehicle Tax obtained each year from Government. Therefore, despite the fact that the government uses the revenue to pay back the borrowed money and the interest on it, this borrowing is not reflected in the government's financial records. Since KIIFB does not generate any money of its own, the State Government is required by the KIIF Act to regularly transfer its own financial resources through the State budget in order to meet KIIFB's debt obligations. It does not change the reality that the obligations of KIIFB constitute a direct claim on the Government's own revenue resources and are therefore a direct liability of the State Government just because these debt payment requirements are stipulated in the Act.

The KIIFB option represents a significant risk with a high likelihood of failure. The government will be required to repay approximately Rs 1 lakh crore at a nine-year interest rate. Repayment will be difficult because many of the KIIFB-funded projects don't bring in money, especially in light of the unaffordable revenue deficit and mounting debt. From more than 20 percent a few years ago, the state's revenue buoyancy has decreased to less than 9 percent now. Growth in the state's debt load and further deepening of the revenue shortfall weigh heavily.

The State's obligations could rise significantly over time, creating a debt trap, without the Government being aware that such liabilities are being generated, if the State Government progressively uses these off-budget methods to finance both its capital and revenue spending.

5.5 Debt Sustainability

The sustainability of public debt is the ability of the government to repay its debts over time without experiencing a default. As a result, it is crucial to review debt growth and evaluate how the fiscal balance, particularly the primary balance, is being formed, as these factors can either aggravate or improve the debt situation. The debt sustainability indicators for the past six years have been examined below.

Table No. 5.7 Trends of Debt Sustainability Indicators

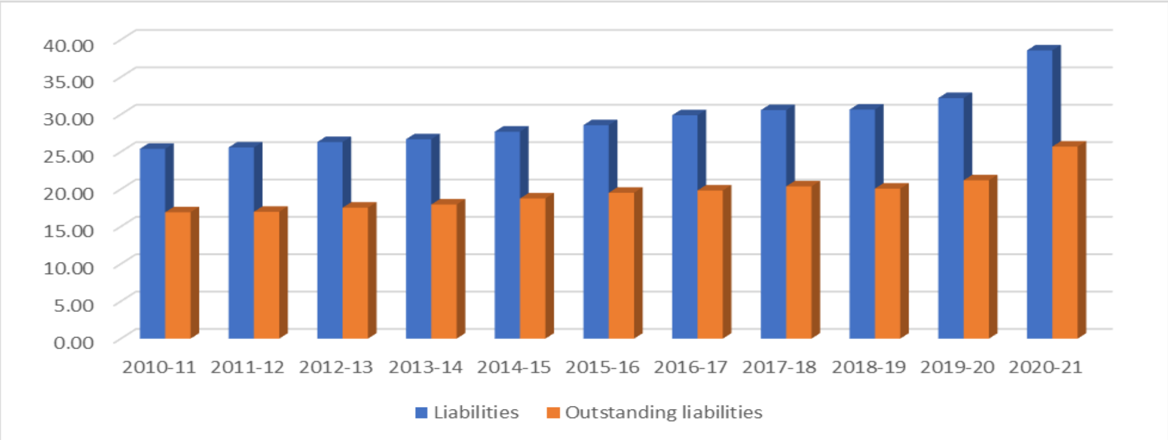
Year	Growth rate of outstanding debt	Growth rate of GSDP	Debt/GSDP ratio	Percentage of Public Debt Repayment to Public Debt Receipt	Percentage of Interest Payment to Revenue Receipt
2015-16	14.14	9.64	19.53	23.06	16.01
2016-17	14.72	12.97	19.83	32.3	16.03
2017-18	13.58	10.34	20.41	43.44	18.21
2018-19	10.67	11.58	20.24	54.4	18.04
2019-20	10.37	8.15	20.43	72.84	21.3
2020-21	17.64	-11.2	27.07	55.82	21.49

Source: State Finance Account, Comptroller and Auditor General of India, 2020, 2021, New Delhi

With the exception of 2018–19, the rate of expansion of the total public debt is consistently higher than the GSDP growth rate. A higher debt-to-GSDP ratio will result if the rate of public debt increase is greater than the rate of GSDP growth. The potential for debt restructuring is indicated by the rising interest rate, which reached its greatest level in 2019–20. It did, however, decline in 2020–21. Less money is available for priority regions due to higher percentages of interest payments. It gauges the government's margin of safety for making interest payments on its debt during a specific time frame. In order to endure any future financial troubles, governments must have revenues greater than what is required to pay interest. The interest rate is on the rise and reaches its peak in the years 2020–21. It shows that a sizeable portion of the borrowed money is being used to pay back the borrowed money and the interest on it, which reduces the amount of net debt that the state has available for use in its development programmes.

The ratio of total outstanding debt to gross domestic product (GSDP) exhibited a rising trend from 2015–16 to 2017–18 and a declining trend in 2018–19; nevertheless, the ratio has shown a rise of 2.05 percent in 2019–20 when compared to 2018–19. The direction of stability can be inferred from a declining debt/GSDP ratio. We might claim that the current level of the primary balance is insufficient to stabilise the debt-to-GSDP ratio, which is on an explosive path if it is rising quickly and surpasses a certain benchmark. By lowering the fiscal deficit to the amount required to make public debt manageable, adequate fiscal adjustment should be accomplished. An increasing ratio of public debt to public debt repayment indicates that more and more proportion of borrowed is used up to finance debt redemption. The ratio was a whopping 72 percent in 2019-20. A look at these ratios clearly gives out warning signs for increasingly unsustainable debts.

Figure 5.4 Outstanding Liabilities as a Percentage of GSDP



Source: Budget in Brief, Government of Kerala, State Planning Board 2013, 2016, 2022, Thiruvananthapuram

Figure 5.4 illustrates the ten-year trend of fiscal liabilities. It also shows the size of one of the largest contingent liabilities, namely the outstanding liabilities. The graph shows that at the beginning of our reference period, the fiscal liabilities have been increasing over the past ten years with the percentage of liabilities ranging from 25 percent to as high as 38.57 percent in 2020-21. It should be highlighted that it is still more than the Finance Commission's suggested 25 percent of GSDP, and the rising trend significantly fuels concerns about "exploding" debt levels and sustainability. High levels of debt create a vicious cycle where greater interest payments induce higher deficits, which then require additional borrowing to cover. Therefore, it is concerning that this cycle has started to play out in the state, fuelled by a number of factors such as greater deficits, a heavier debt load, rescheduling by the Government of India in response to recommendations from the Finance Commission, and perhaps even better debt management.

The ratio of liabilities to market borrowing, with a lower interest burden, has changed significantly. The proportion of central loans has decreased, as have the contributions from small savings and provident funds. The former was turned down as the Government of India stopped dispersing grants and loans as central assistance after agreeing to the recommendations of the Twelfth Finance Commission. The compositional adjustment has assisted in easing the burden of interest payments and is a step in the direction of fiscal consolidation.

The State's interest rate is the same as other States' interest rates. It is important to note that the State has a Treasury Savings Bank that dates back to before independence. This is an obligation under the Public Account that the State government may use for ways and means. The government has eliminated the practice of departments using Treasury Savings Bank (TSB) accounts to withdraw money and utilize it afterwards or, in other words, keep it from expiring at the end of the fiscal year as part of fiscal consolidation and expenditure rationalisation. This would result in reduced spending and the preservation of deficit goals.

The sustainability of debt is also reflected in the way the money borrowed is put to use. A significant percentage of the borrowed money was used to cover the state's revenue expenses throughout the course of the five years. Even though the amount of money allocated to revenue expenditures fell in the fiscal years 2019–20, 2020–21 saw an increase. The right approach to using borrowed money is to finance capital development and creation projects. It is unsustainable to use borrowed money to pay both current expenses and interest on loans that are still owed.

Table No. 5.8 Utilisation of Borrowed Funds in Percentages

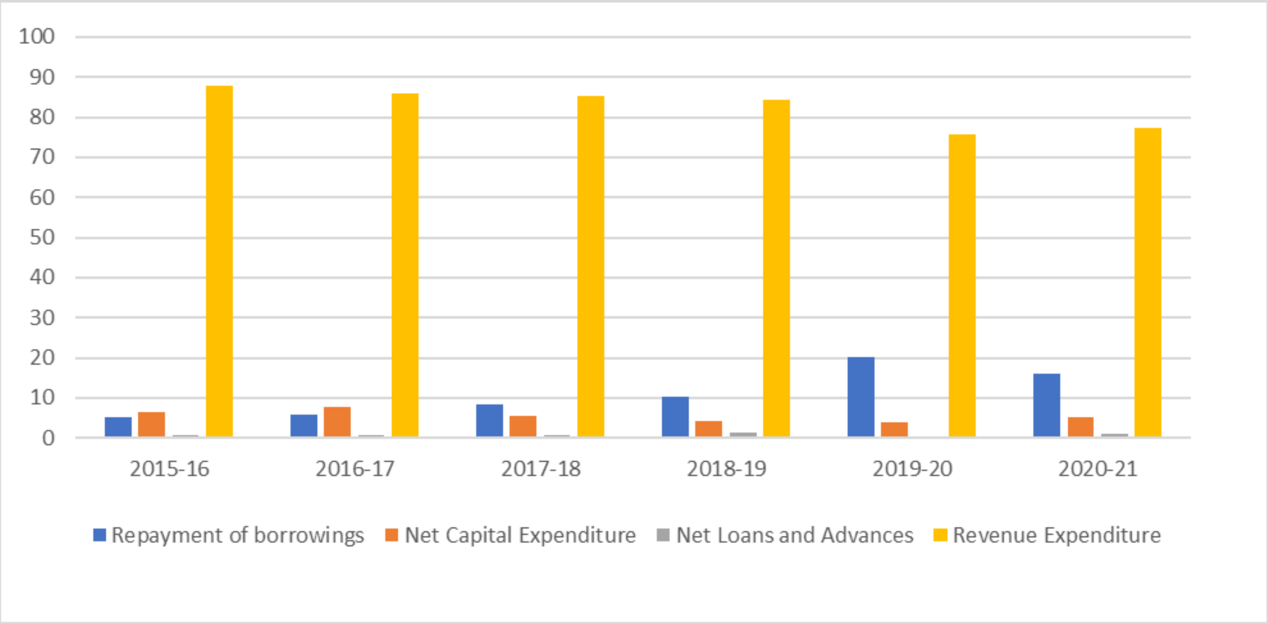
(Figures in Percentages)

Year	Repayment of borrowings	Net Capital Expenditure	Net Loans and Advances	Revenue Expenditure
2015-16	5.23	6.45	0.6	87.72
2016-17	5.77	7.56	0.65	86.02
2017-18	8.41	5.59	0.76	85.24
2018-19	10.31	4.19	1.2	84.3
2019-20	20.13	3.85	0.42	75.6
2020-21	15.93	5.26	0.93	77.38

Source: State Finance Account, Comptroller and Auditor General of India, 2020, 2021, New Delhi

Table 5.8 shows the share of the amount utilised for each purpose from the borrowed funds. The trend of utilising the borrowed funds of Kerala is a matter of serious concern. The massive share of the money being used to fund just revenue expenditure indicates that the repayment of these debts will have to be borne from other sources since the expenses incurred using these debts do not generate revenue. The impending danger of meeting revenue expenditure can be seen from the share of repayment of borrowings.

Figure 5.5 Trends of Utilisation of borrowed funds



Source: State Finance Account, Comptroller and Auditor General of India, 2020, 2021, New Delhi

The share of repayment of debts from borrowed funds is steadily increasing. Even though the fall in the share of revenue expenditure is a positive sign, it does not mean that the funds are being put to productive use. In the years where the share of revenue expenditure funded from borrowed money is less, the same has been used to fund debt repayments. The share of capital outlay is not only very meagre but has also been declining.

Based on the deficit indicators a fiscal composite index has been used to assess the fiscal stress of the state economy. The performance evaluation of state finances is shown by the Fiscal Performance Index. The various states' composite fiscal metrics represent fiscal performance. The Fiscal Performance Index is helpful in evaluating state budgetary sustainability, spending regulation based on priorities, and revenue management. As a composite indicator, the Fiscal Performance Index will provide inputs to the FRBM regarding any improvements to the fiscal parameters.

5.6 Fiscal Performance Index (FPI)

The composite index is multi-dimensional and encompasses a number of indicators, the relative distance approach required to generate it is crucial. This study uses ten indicators to calculate five major sub-indices from ten minor sub-indices reflecting different aspects of fiscal performance.

The indices used to form the Fiscal Performance Index are Deficit Index, Revenue Efficiency Index, Expenditure Quality Index, Debt Index and Debt Sustainability Index. Two minor sub-indices are used to map each major sub-index.

1. Deficit Index comprises of two minor indices; the revenue deficit index which is revenue deficit as a proportion of Gross State Domestic Product and the fiscal deficit index calculated as a proportion of fiscal deficit in Gross State Domestic Product.
2. Revenue Efficiency Index, calculated from two indicators, state own tax revenue index, own tax revenue as a proportion of GSDP and state own non-tax revenue index, own non-tax revenue as a proportion of GSDP.
   As the GSDP indicates a state's ability to collect taxes, these two indicators together show how effectively the states can do so.
3. Expenditure Quality Index is made up of the developmental revenue expenditure index, development revenue expenditure as a proportion of revenue receipts and the development capital expenditure index, developmental capital expenditure as a ratio of revenue receipts.

The composition of spending and, consequently, its quality, are expressed by the Expenditure Quality Index. A higher percentage of both ratios suggests that the government is better at allocating resources to activities that promote development.

4. Debt Index comprises of Interest Payment to Revenue Receipts Index and Debt Ratio Index. The proportion of revenue used for interest payments on outstanding debt is shown by the interest payments to revenue ratio. It represents the state's position regarding debt servicing. The Debt Ratio Index

is calculated as the debt stock to gross domestic product ratio. This indicator indicates the state's level of debt.

5. Debt Sustainability Index is calculated using Debt Spread Index and Rate Spread Index. The debt spread index is calculated as the difference between the growth rate of GSDP and the growth rate of debt. The rate spread index is constructed by calculating the difference between the growth rate of GSDP and the average cost of borrowing.

This average borrowing cost is calculated by dividing the interest costs for a given year by the average balance of debt outstanding for that year and the previous year. A higher spread indicates that the debt is more likely to be able to satisfy its interest and principal obligations. The state overcomes a debt trap because of the higher spread, which also means that it does not need to borrow money to cover its responsibility to pay interest.

The Relative Distance approach is used to build the sub-indices from the evaluated fiscal factors. The level of each of the indicators is standardised in this technique to a number between 0 and 100. The improvement Index is the index that is built for positive signs. The Deprivation Index is the index created by using unfavourable factors. Both indices will have values between 0 and 100.

$$\text{Deprivation Index (D)} = (\text{Max}(X) - X) / (\text{Max}(X) - \text{Min}(X)) \times 100$$

$$\text{Improvement Index (I)} = (Y - \text{Min}(Y)) / (\text{Max}(Y) - \text{Min}(Y)) \times 100$$

Where X is the actual value of the parameter. Max (X) and Min (X) are the maximum and minimum values of the parameter. The range of the indices is from 0 to 100, with 0 depicting the worst performance and 100 indicating the best performance.

Accordingly, the study attempts to assess the fiscal performance of the state to prove the existence of a fiscal crisis. For this purpose, the range of values are being divided into quartiles; 0-25, 25-50, 50-75, and 75-100. The quartiles respectively represent worst performance, bad performance, good performance and best performance.

Since the revenue deficit ratio, the fiscal deficit ratio, the interest payment ratio, and the debt stock ratio are negative fiscal characteristics and are components of the index formulation, the Revenue Deficit Index, Fiscal Deficit Index, Interest Payment Revenue Receipts Index, and Debt Index are viewed as Deprivation Indexes. The Deprivation Index is built in such a way that a state will receive a higher index value the lower its ratio. With favourable indicators included in index formulation, state own tax revenue index, state own non-tax revenue index, development revenue expenditure index, development capital expenditure index, debt spread index and rate spread index are classified as Improvement Indexes. A higher ratio results in a higher improvement index value.

The main sub-index and minor indices are calculated from the average of the corresponding minor indices and sub-indices, respectively. The mean of the key indices is used to calculate the composite FPI.

The calculated five major indices are shown for seven time periods spanning from 2000-01 to 2020-21 is have been tabulated below.

Table No. 5.9 Major Indices of Fiscal Performance Index

	Deficit Index	Revenue Efficiency Index	Expenditure Quality Index	Debt Index	Debt Sustainability Index
2000-03	44	60	69	37	53
2003-06	55	33	46	43	61
2006-09	54	35	52	52	52
2009-12	33	73	56	48	40
2012-15	66	48	42	40	59
2015-18	37	73	38	52	41
2018-21	50	50	45	55	52

Source: Calculations from Budget in Brief, Government of Kerala, State Planning Board 2012-13, 2013-14 and 2020-21, Thiruvananthapuram

As mentioned above the deficit index and debt index are the deprivation indices that show the fiscal performance of an economy. The deficit index values of the state over a period of 21 years clearly depict the alarming condition of the economy. While the measurement of best performance by deprivation index is 100, Kerala clocks only 66 as the maximum. Low index values imply that the deficit ratios, revenue deficit ratio and fiscal deficit ratio, are very high. The debt index comprising of the interest payment revenue receipts ratio and the debt to GSDP ratio. A higher value of interest payment ratio indicates that a large portion of revenue receipts is being used up for the payment of interest portraying the debt servicing position of the state. Similarly, the debt GSDP ratio indicates the debt burden of an economy. With the debt index showing only a maximum value of 55 it is evident that the state has been reeling under the threat of an imminent debt trap with both the ratios remaining high.

The improvement indices of revenue efficiency, expenditure quality and debt sustainability depict no different picture. The revenue efficiency index has recorded a maximum of 73 during the period from 2015 to 2018. Even though this implies a positive trend, the expenditure quality index during the same period is the lowest at only 38. The low value of the expenditure quality index shows that a very small portion of the revenue was only used up for developmental purposes. The imminent danger faced by the state is apparent through the debt sustainability index and debt index. The debt sustainability index was the lowest over the past decade. The CAG report urges the State to observe debt sustainability and make deliberate efforts to maintain a healthy debt-GSDP ratio in the most recent audit report on State Finances. 54 percent of the State's total fiscal obligations were made up of open market loans.

Table No. 5.10 Fiscal Performance Index and Sub-Indices

	Deficit Index	Revenue Efficiency Index	Expenditure Quality Index	Debt Index	Debt Sustainability Index	Fiscal Performance Index
2000-03	44	60	69	37	53	**52**
2003-06	55	33	46	43	61	**48**
2006-09	54	35	52	52	52	**49**
2009-12	33	73	56	48	40	**50**
2012-15	66	48	42	40	59	**51**
2015-18	37	73	38	52	41	**48**
2018-21	50	50	45	55	52	**50**

Source: Calculations from Budget in Brief, Government of Kerala, State Planning Board 2012-13, 2013-14 and 2020-21, Thiruvananthapuram

The Fiscal Performance Index values presented above show the dismal condition of the finances of the state. Interpreting the index values on the earlier mentioned quartile categories, the state has continuously remained in the bad performance range. Even when the state marked the entrance into the good performance bracket, the index values were enough to meagrely make its mark. The inclusion of more than just one indicator is justified in the large-scale variations in the sub-indices within the same time periods. For example, in 2015-18, the revenue efficiency index is at its highest 73 but the deficit index is as low as 37. The expenditure quality index for the same year is only 38. These imply that even though during 2015-18, the own revenue collection efforts were quite good, the deficit ratios were very high. The high deficit indicators during 2015-18 are explained by the expenditure quality index, implying that efficiency in expenditure management was the worst during the same period. The poor performance is distinctly reflected in the fiscal performance index for the year being the lowest over the past two decades.

The performance index values reflect the dismal condition of the state finances. The results prove that the economy is reeling extreme fiscal crisis with imminent threats of unsustainable debts, poor management of expenditure and inadequate mobilisation of revenue. The unsustainability of debts poses the danger of a fiscal crisis paving way for a grave debt crisis. Tackling mounting debt and higher expenditures have been the hurdles for the state. The recent calamities that the economy faced have been a catalyst in aggravating the crisis. The state increasingly resorting to out-of-budget borrowings could also add to the mounting debt if the trend of revenue growth is not reversed.

5.7 Determinants of Fiscal Crisis

With the existence of a fiscal crisis proved, the question of what has led to the fiscal crisis gains prominence. A comprehensive picture of budgetary imbalances is provided by the fiscal deficit. A fiscal deficit is used as a budgetary instrument to facilitate the budgetary process and achieve goals. A fiscal deficit occurs when the government's anticipated revenue is less than its existing expenses. When calculating total revenue, borrowing money is not taken into account because of the discrepancy between total revenues and total expenditure. It is a result of heavy government spending on infrastructure and an insufficient collection of taxes. A fiscal shortage occurs when a government's overall spending exceeds the revenue it generates, diverting money from borrowings. The widening discrepancy between government revenues and expenditures may also be a result of widespread corruption and excessive spending. The term "gross fiscal deficit" refers to the excess of revenue expenditure, capital expenditure, and the rate of net lending over revenue income and non-debt capital income, which includes revenues from disinvestment.

Typically, a fiscal shortfall results from either a significant increase in capital expenditures by the government or a lack of revenue. Fiscal deficit affects the economy and macroeconomic factors over the long term, depending on the type of deficit. The implications of a deficit are positive if it results from increased government expenditure on infrastructure, grants, or investments in the business and productivity sectors. If a deficit results from a decrease in government revenue brought on by a tax cut or a drop-in company activity, this form of the deficit is bad for growth. The severity of the fiscal imbalance denotes the government's expenditure of its wealth. An indicator of the necessity for government borrowing because of insufficient resources is the fiscal deficit. A sizable deficit suggests sizable borrowings. It is the same as borrowing. The ruling authorities are being warned by high FD to cut spending or boost tax or non-tax revenue. Fiscal deficit is the opposite of fiscal surplus and is both a widely held and contentious notion. It shows how the budget's finances are doing. Higher FD is cause for concern, and a balanced fiscal deficit is a positive development.

The gross fiscal deficit is taken as the proxy for fiscal crisis. The gross fiscal deficit ratio is regressed against total receipts and total expenditures, to examine its effect on gross fiscal deficit. The factors that influence the budget deficit have been examined with the aid of a multiple regression model. Total Revenues and Total Expenditures are considered the independent variables, and Fiscal Deficit is considered the dependent variable.

Gross Fiscal Deficit = f {Total Revenue, Total Expenditure}

$$GFD = \beta 0 + \beta 1\ TR + \beta 2\ TE + u$$

where, GFD - Gross Fiscal Deficit, TR - Total Revenues, TE - Total Expenditures, β – Coefficients, u - Error Term

Summary Output

Regression Statistics	
Multiple R	0.996928
R Square	0.993865
Adjusted R Square	0.993183
Standard Error	810.9625
Observations	21

	Coefficients	*Standard Error*	*t Stat*	*P-value*
Intercept	894.4092	311.2519	2.873587	0.010105
Total revenue	-0.57576	0.081185	-7.09192	1.3E-06
Total Expenditure	0.661685	0.060507	10.93559	2.22E-09

The results given above demonstrate that the R-square is roughly 0.99, indicating that total expenditures and revenues account for 99 percent of the fluctuation in fiscal deficits. Fiscal deficits are reduced by 0.5 crores for every 1 crore rise in total income (approx.). Therefore, a higher increase in revenues is required to reduce the deficits. The total revenue's t-statistic is -7.09. Therefore, we can conclude that total revenues play a major role in lowering deficits.

Since the coefficient of total expenditures is 0.66, an increase in total expenditures of Rs. 1 results in a fiscal deficit of Rs. 0.66 crores. Total spending and deficits are highly and positively correlated with one another. The t-statistic is 4.94, which is higher than the t-table statistic's value of 5 percent. (2.086). However, since revenue and expenditure are the factors of fiscal deficit, R^2 is nearly 1 indicating the problem of totality. To mitigate this expenditure and revenue are regressed against fiscal deficit individually.

Summary Output

Regression Statistics		
	Revenue	Expenditure
Multiple R	0.97627	0.988292
R Square	0.953102	0.976721
Adjusted R Square	0.950634	0.975496
Standard Error	2182.292	1537.515
Observations	21	21

	Revenue				Expenditure			
	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Coefficients*	*Standard Error*	*t Stat*	*P-value*
Intercept	179.6706	818.9011	0.219404	0.828675	305.4237	568.7122	0.537044	0.597471
X Variable	0.309734	0.015762	19.65041	4.39E-14	0.233689	0.008277	28.23453	5.59E-17

The regression results of revenue and expenditure against fiscal deficit separately indicate the stronger factor between revenue and expenditure in controlling fiscal deficit. With expenditure controlling 97 percent of fiscal deficit fluctuations expenditure is stronger in its influence on fiscal deficit. The t-statistic for expenditure is 28.23 indicating a strong impact on fiscal crisis. Even though expenditure is statistically stronger in deciding a fiscal crisis situation public revenue also shows significant results. However, the impact of revenue is considered lesser than that of expenditure. As a result, we draw the conclusion that overall spending has a statistically significant impact on reducing fiscal deficits. This research supports the trend analysis of fiscal deficits that was conducted, which revealed that increasing revenue mobilisation was the most effective way to reduce deficits because significant spending reductions were unsustainable.

5.8 Inferences

The discussion so far demonstrates that Kerala's fiscal crisis developed as a result of rising spending, particularly unproductive spending, and the government's failure to mobilise revenue streams due to its rigidities. Factors including increased revenue expenditure or recurring expenditure without revenue mobilisation, loss-making public enterprises, tax leakages, improper planning, etc., have been mentioned in the ongoing talks on these issues. According to George (2003), fiscal imbalances are a result of the government's unwillingness to make difficult decisions regarding budget management.

1. The performance index values reflect the dismal condition of the state finances. The results prove that the economy is reeling extreme fiscal crisis with imminent threats of unsustainable debts, poor management of expenditure and inadequate mobilisation of revenue.
2. Unsustainability of debts poses the danger of a fiscal crisis paving way for a grave debt crisis. Tackling mounting debt and higher expenditures have been the hurdles for the state. The recent calamities that the economy faced have been a catalyst in aggravating the crisis. The state increasingly resorting to out-of-budget borrowings could also add to the mounting debt if the trend of revenue growth is not reversed.

3. The above assessment of fiscal performance indicates that even though increased revenue mobilisation enhances the fiscal health of an economy, revenue mobilisation alone cannot be considered a factor of fiscal crisis. Even if revenue mobilisation is high, if it is not accompanied by efficient management of expenditure, it is likely that the higher mobilisation of revenue will not be reflected in the fiscal health of an economy.
4. Public expenditure was found to be a stronger factor than revenue in controlling the fiscal deficit in Kerala. Nevertheless, mobilisation of revenue does not lose importance since large cuts in public expenditure cannot be implemented as it would affect the state's welfare.

To quote the State Audit Report of 2021, the Government of Kerala, "If the Government continues to borrow year after year, it leads to the accumulation of debt and the Government has to pay more and more by way of interest. These interest payments themselves contribute to the debt. Increase in debt over the years not only reduces the capital formation and growth but also acts as a burden on future generations."

CHAPTER VI

TAX COMPLIANCE BEHAVIOUR

As explained in the previous chapters, one of the major factors affecting fiscal crisis in the State is revenue mobilisation. With a situation of fiscal crisis existing in the economy revenue mobilisation is accounted to not meet potential. This may be due to various reasons including tax administration, economic downturn, tax evasion and compliance behaviour. This Chapter seeks to find out the reasons for low tax collection in the State by looking at the attitude towards tax and compliance. For this, selected traders and consumers were interviewed. Sales Tax/VAT is actually paid by the consumers. They pay this tax in accordance with the price of the product. However, the entire tax amount accrued to the traders need not go to the government treasury because of many reasons. This chapter attempts to address this question in detail.

6.1 An Analysis of the Tax Compliance Behaviour of Consumers

Tax payment is the responsibility of each person in a country. A strong tax system can play three important roles in national development: revenue generation, lessening inequality and promoting good governance. Firstly, revenue is the most obvious and direct role of taxation. This revenue is used to address the short-term and long-term problems of human development such as medical treatments, public infrastructure services and schools. Secondly, tax revenue may be used to distribute as welfare transfers to reduce extreme poverty. Finally, the tax also plays a key role in building up institutions and democracy by making the State accountable to its taxpayers.

So, tax plays a vital role in an economy with people being responsible for tax payments. The behaviour of people in tax payment amounts to tax compliance. Tax compliance means making tax payments and producing and submitting information to the tax authorities on time and in the required formats. In other words, it is the degree to which a taxpayer complies (or fails to comply) with the tax rules of his country. Tax compliance behaviour shows the behaviour of taxpayers to pay the tax and also to evade tax.

To study the tax compliance behaviour pertaining to indirect tax, the major stakeholders in the indirect tax regime, the consumers were studied. Consumers' behaviour and attitude towards tax payment were explored by randomly selecting them. A primary survey was conducted to analyse the tax compliance behaviour among the public, specifically the consumers. Questions based on attitudes, reactions and behaviours were administered to 300 consumers through questionnaires. The consumers were randomly selected, and data was collected by the mall intercept method.

The results of the survey have been presented below.

Table 6.1 Association between Problems in Tax Collection and State Fiscal Crisis

		Problems in tax collection affect the fiscal situation of the state					Total
		Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree	
Kerala is facing a fiscal crisis	Strongly Disagree	11.10%	16.70%	27.80%	27.80%	16.70%	100.00%
		8.00%	8.60%	9.40%	4.30%	4.30%	6.00%
	Disagree	3.70%	18.50%	22.20%	18.50%	37.00%	100.00%
		4.00%	14.30%	11.30%	4.30%	14.30%	9.00%
	Neither Agree nor Disagree	21.10%	18.40%	10.50%	31.60%	18.40%	100.00%
		32.00%	20.00%	7.50%	10.30%	10.00%	12.70%
	Agree	5.60%	9.50%	18.30%	48.40%	18.30%	100.00%
		28.00%	34.30%	43.40%	52.10%	32.90%	42.00%
	Strongly Agree	7.70%	8.80%	16.50%	37.40%	29.70%	100.00%
		28.00%	22.90%	28.30%	29.10%	38.60%	30.30%
	Total	8.30%	11.70%	17.70%	39.00%	23.30%	100.00%
		100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

Source: Primary Survey

The above table shows results for the questions on the existence of a fiscal crisis in the state and its connection to 'discrepancies in tax collection'. Most consumers have acceded to the 'existence of a fiscal crisis' in the state, comprising 42 percent agreeing and 30.3 percent strongly agreeing to the statement. Among those who have accepted the existence of a fiscal crisis, 52 percent of 42 percent who have consented and 38 percent of those who expressed strong assent have accepted that problems in tax collection are the reasons for the crisis. Fiscal crisis, according to them, is the reason why the state government is forced to raise revenue through the implementation of cesses and its failure to meet its committed expenditures, resulting in delayed payment of salaries and pensions. 15 percent of the people that opposed the existence of a crisis opined that fiscal crisis was just a sham that the government is indulging in to cover up their wasteful expenditures. It was also noted that even though 72 percent accepted the existence of a fiscal crisis, all of them did not associate it with o problematic tax collection. However, problems in tax collection due to ambiguities in notifications and lack of clarity have been attributed to the fiscal crisis in the state.

Table 6.2 Association between Change in Governance and Problems in Tax Collection

		A change in the government can improve the tax collection					Total
		Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree	
Problems in tax collection affect the fiscal situation of the state	Strongly Disagree	28%	60%	12%	0%	0%	100%
		11%	11%	7%	0%	0%	8%
	Disagree	31%	49%	11%	9%	0%	100%
		17%	13%	10%	8%	0%	12%
	Neither Agree nor Disagree	25%	47%	9%	8%	11%	100%
		20%	19%	12%	10%	30%	18%
	Agree	14%	43%	16%	21%	7%	100%
		24%	37%	46%	62%	40%	39%
	Strongly Agree	27%	39%	14%	11%	9%	100%
		29%	20%	24%	21%	30%	23%
	Total	22%	45%	14%	13%	7%	100%
		100%	100%	100%	100%	100%	100%

Source: Primary Survey

The consensus in the response to 'problems in tax collections' also reflects in the disagreement that 'changes in government would solve the problems' and thereby an improvement in tax collection. Among the 62 percent who asserted that tax collection problems affect fiscal situation 53 percent strongly disagrees that change in the government could improve the system. 67 percent of the respondents do not agree that a change in the government can bring in major changes in tax collection. Even when 20 percent do not attribute faulty tax collection to adversely affecting fiscal health, none of them considers that an improvement in tax collection is possible even if the government changes. They blame the system as a whole for the fiscal problems of the state wherein corruption amongst the officials was pointed out as the major deterrent for efficiency in tax collection.

Table No. 6.3 Association between Problems in Tax Collection affecting Fiscal Crisis and Legal Avoidance through Loopholes

<table>
<tr><td colspan="2" rowspan="2"></td><td colspan="5">Problems in tax collection affect the fiscal crisis of the state</td><td rowspan="2">Total</td></tr>
<tr><td>Strongly Disagree</td><td>Disagree</td><td>Neither Agree nor Disagree</td><td>Agree</td><td>Strongly Agree</td></tr>
<tr><td rowspan="10">Legally avoid paying taxes by using loopholes in laws is accepted</td><td rowspan="2">Strongly Disagree</td><td>10.60%</td><td>16.70%</td><td>19.70%</td><td>24.20%</td><td>28.80%</td><td>100.00%</td></tr>
<tr><td>28.00%</td><td>31.40%</td><td>24.50%</td><td>13.70%</td><td>27.10%</td><td>22.00%</td></tr>
<tr><td rowspan="2">Disagree</td><td>11.20%</td><td>12.70%</td><td>18.70%</td><td>37.30%</td><td>20.10%</td><td>100.00%</td></tr>
<tr><td>60.00%</td><td>48.60%</td><td>47.20%</td><td>42.70%</td><td>38.60%</td><td>44.70%</td></tr>
<tr><td rowspan="2">Neither Agree nor Disagree</td><td>7.30%</td><td>9.80%</td><td>12.20%</td><td>46.30%</td><td>24.40%</td><td>100.00%</td></tr>
<tr><td>12.00%</td><td>11.40%</td><td>9.40%</td><td>16.20%</td><td>14.30%</td><td>13.70%</td></tr>
<tr><td rowspan="2">Agree</td><td>0.00%</td><td>7.70%</td><td>10.30%</td><td>61.50%</td><td>20.50%</td><td>100.00%</td></tr>
<tr><td>0.00%</td><td>8.60%</td><td>7.50%</td><td>20.50%</td><td>11.40%</td><td>13.00%</td></tr>
<tr><td rowspan="2">Strongly Agree</td><td>0.00%</td><td>0.00%</td><td>30.00%</td><td>40.00%</td><td>30.00%</td><td>100.00%</td></tr>
<tr><td>0.00%</td><td>0.00%</td><td>11.30%</td><td>6.80%</td><td>8.60%</td><td>6.70%</td></tr>
<tr><td rowspan="2"></td><td rowspan="2">Total</td><td>8.30%</td><td>11.70%</td><td>17.70%</td><td>39.00%</td><td>23.30%</td><td>100.00%</td></tr>
<tr><td>100.00%</td><td>100.00%</td><td>100.00%</td><td>100.00%</td><td>100.00%</td><td>100.00%</td></tr>
</table>

Source: Primary Survey

It is quite ironic to note that among those who accepted ‘Legal avoidance of tax acceptable’, very few have only disagreed with the statement ‘Problems in tax collection affecting fiscal situation’.

Table No. 6.4 Association between Responses to ‘Indirect Tax Payment affecting Development’ and ‘the Uses of Indirect Tax’

		Do you think not paying the indirect tax will affect the state's Development?		
		Yes	No	Maybe
Expenditure of income from indirect taxes (Sales tax, VAT, GST)	Health Services	78%	11%	11%
		3%	3%	2%
	Education	80%	20%	0%
		11%	15%	0%
	Law and Order	89%	4%	7%
		11%	3%	4%
	Road and Transportation	89%	8%	4%
		11%	5%	2%
	Social Welfare (Pensions, Salaries, etc)	62%	9%	29%
		26%	20%	50%
	All of the Above	65%	18%	17%
		37%	55%	42%
	Total	70%	13%	17%
		100%	100%	100%

Source: Primary Survey

Table No. 6.5 Analysis of Responses to ‘Uses of Indirect Tax’ and ‘Satisfaction in Services from Government’

		Satisfaction in services received from the government in accordance with the tax you pay.					Total
		Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree	
Expenditure of income from indirect taxes (Sales tax, VAT, GST)	Health Services	11%	44%	22%	22%	0%	100%
		1%	3%	4%	6%	0%	3%
	Education	47%	30%	17%	3%	3%	100%
		16%	8%	11%	3%	10%	10%
	Law and Order	59%	30%	7%	4%	0%	100%
		18%	7%	4%	3%	0%	9%
	Road and Transportation	19%	46%	12%	15%	8%	100%
		6%	10%	7%	11%	20%	9%
	Social	20%	43%	14%	17%	7%	100%

	Welfare (Pensions, Salaries, etc)	19%	31%	26%	42%	60%	29%
	All the Above	31%	40%	18%	11%	1%	100%
		41%	41%	48%	36%	10%	40%
	Total	30%	39%	15%	12%	3%	100%
		100%	100%	100%	100%	100%	100%

Source: Primary Survey

The question on what the indirect taxes of the state was being used for was returned with different answers. The widely agreed answer was that it was used for meeting the requirements in the health, education, roads and transportation sectors and also to meet law and order and other committed expenditures, but they were not able to single out each one from the other. An intriguing aspect is that from the responses 69 percent expounded that they did not receive the services proportionately. Even though the respondents could not single out the avenues where the indirect tax was being utilised there is a major consensus (70%) that non-payment of indirect would affect the state economy and its development. 40 percent of the respondents believe that indirect taxes are used for meeting the expenditures of health, education, road and transportation, law and order sectors and other committed expenditures. But amongst them nearly 35 percent do not consider the non-payment of indirect tax would affect the economy.

Table No. 6.6 Association between 'Traders not Reporting their Income' and 'Traders Pay Proper Tax without Bills'

		All traders do not report their full income					Total
		Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree	
The traders pay the taxes without proper bill	Yes	5%	13%	10%	28%	45%	100%
		7%	15%	6%	15%	20%	13%
	No	11%	10%	24%	26%	29%	100%
		87%	76%	87%	83%	78%	82%
	Don't Know	14%	21%	36%	14%	14%	100%
		7%	9%	7%	3%	2%	5%
	Total	10%	11%	23%	25%	30%	100%
		100%	100%	100%	100%	100%	100%

Source: Primary Survey

A cross-analysis was carried out to seek out the relation between the traders reporting their income fully and the tendency of the traders to not pay the tax dues in the absence of proper bills. The analysis shows that 82 percent agreed that traders would not pay the taxes accurately without proper bills at the same time 55 percent agree that the traders are not reporting their income fully. Of the 82 percent who said that the traders will not pay taxes without proper bills, 54 percent strongly agree that full income is not reported by the traders.

Table No. 6.7 Association between 'Traders Pay Proper Tax without Bills' and 'Consumers Supporting Evasion by not Asking for Bills'

		Not asking for the bills is supporting evasion			Total
		Yes	No	Maybe	
The traders pay the taxes without proper bill	Yes	40%	43%	18%	100%
		10%	19%	15%	13%
	No	57%	28%	15%	100%
		85%	77%	81%	82%
	Don't Know	64%	21%	14%	100%
		6%	3%	4%	5%
	Total	55%	29%	16%	100%
		100%	100%	100%	100%

Source: Primary Survey

The consumers are fully aware of the fact that traders would not pay taxes properly without accurate billing with 82 percent agreeing that without proper bills traders would not pay taxes. People (84 percent) also recognise that they pay tax even if they do not take the bills. Out of 82 percent who opined that the traders do not pay proper taxes without bills, 85 percent knew that they are paying the tax even without accepting the bills.

84 percent are aware that they are contributing to taxes even if they do not accept the bill while 55 percent were aware that not asking for the bills amounted to supporting evasion. However, even when 84 percent are aware that irrespective of whether the bill is given or not contribution to tax is made 29 percent of the respondents did not believe that not asking for the bill would amount to them paving way for tax evasion.

Table No. 6.8 Association between 'Traders not Reporting their Income' and 'Increase in Deliberate Tax Evasion'

		All traders do not report their full income					Total
		Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree	
Deliberate tax evasion is increasing	Strongly Disagree	25%	14%	25%	19%	17%	100%
		29%	15%	13%	9%	7%	12%
	Disagree	7%	15%	33%	30%	15%	100%
		10%	21%	22%	18%	8%	15%
	Neither Agree or Disagree	15%	13%	26%	20%	26%	100%
		29%	24%	23%	16%	18%	20%
	Agree	4%	9%	19%	37%	31%	100%
		10%	21%	22%	38%	26%	26%
	Strongly Agree	9%	8%	18%	18%	48%	100%
		23%	18%	20%	18%	42%	26%
	Total	10%	11%	23%	25%	30%	100%
		100%	100%	100%	100%	100%	100%

Source: Primary Survey

With 55 percent accepting that traders may not report their complete income while filing for tax returns, an attempt was made to compare this response to the response to an increase in deliberate tax evasion. Deliberate tax evasion was said to be increasing by 52 percent with 20 percent neither agreeing nor disagreeing. Among the 52 percent that agreed on deliberate tax evasion, 68 percent strongly believed that the traders were not reporting their incomes. This is intriguing since 41 percent of the respondents are influenced by the belief that all are paying taxes properly in their decision to pay taxes.

At the same time, among those who agree to the existence of deliberate tax evasion, 33 percent believe that traders do not underreport or over-report their income while tax filing. They ascribe the reason for deliberate tax evasion to loopholes in tax laws and corruption among the tax authorities.

Table No. 6.9 Association between 'Increase in Deliberate Tax Evasion' and 'Deliberate Non-Compliance being a Major Problem'

		Deliberate non-compliance of tax is a major problem					Total
		Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree	
Deliberate tax evasion is increasing	Strongly Disagree	19%	33%	14%	11%	22%	100%
		25%	24%	10%	5%	8%	12%
	Disagree	9%	20%	20%	26%	26%	100%
		14%	18%	18%	16%	13%	15%
	Neither Agree nor Disagree	12%	21%	30%	18%	20%	100%
		25%	26%	37%	15%	13%	20%
	Agree	6%	6%	13%	46%	28%	100%
		18%	10%	20%	47%	23%	26%
	Strongly Agree	6%	15%	9%	17%	53%	100%
		18%	24%	14%	17%	44%	26%
	Total	9%	17%	16%	25%	32%	100%
		100%	100%	100%	100%	100%	100%

Source: Primary Survey

The above table shows the response to the statements that deliberate tax evasion is increasing and that deliberate non-compliance with tax is a major problem. It is intriguing to observe that even when 57 percent agreed that deliberate non-compliance was a major problem, 26 percent did not perceive it to be a major problem while 16 percent were indifferent to the statement. Nearly 52 percent have agreed that deliberate tax evasion is increasing. However, even though 52 percent have conceded that tax evasion is increasing 17 percent do not consider purposeful non-compliance to be a significant setback.

Table No. 6.10 Association between 'Legal Avoidance of through Loopholes' and 'Personal Belief of doing the Right Thing'

		Your personal belief that you should do the 'right thing'				Total
		No Influence	Little Influence	Somewhat an Influence	Strong Influence	
Legally avoid paying taxes by using loopholes in laws is accepted.	Strongly Disagree	12%	5%	23%	61%	100%
		13%	4%	18%	16%	14%
	Disagree	7%	21%	9%	63%	100%
		8%	20%	7%	17%	14%
	Neither Agree nor Disagree	6%	29%	27%	38%	100%
		8%	30%	23%	11%	16%
	Agree	21%	12%	16%	51%	100%
		40%	20%	21%	23%	24%
	Strongly Agree	13%	13%	19%	55%	100%
		32%	26%	32%	32%	31%
	Total	13%	15%	19%	53%	100%
		100%	100%	100%	100%	100%

Source: Primary Survey

The conscience of righteousness is a strong influence for 53 percent of the respondents. The prevalence of a sense of morality among the public is welcoming since that would deter them from non-compliance and evasion. However, even when a majority affirms to the sense of righteousness, 55 percent find it acceptable to avoid taxes through loopholes in laws. This proves that there would be considerable amount of tax not reaching the state treasury, given the existence of vast loopholes in taxation laws of the state.

Table No. 6.11 Association between 'Tax Authorities contacting on tax Matters' and 'Strictness of Tax Administration and Laws of the State'

		The tax authority would contact you on tax matters				Total
		No Influence	Little Influence	Somewhat an Influence	Strong Influence	
Tax administration and tax laws strict in the State	Yes	25%	17%	24%	33%	100%
		34%	27%	39%	32%	33%
	No	25%	21%	16%	38%	100%
		41%	41%	33%	45%	41%
	Don't Know	23%	25%	22%	30%	100%
		25%	32%	28%	23%	26%
	Total	24%	21%	20%	34%	100%
		100%	100%	100%	100%	100%

Source: Primary Survey

The reaction to the statement of whether tax administration was considered strict is worrisome, with 41 percent not regarding tax laws and administration stringent. This is worrisome since, among the 41 percent, 45 percent find tax authorities contacting them to be a strong influence on tax payment. Since tax administration is not considered stringent, those people whose decision to pay tax is influenced by the possibility of tax authorities contacting them would decide against timely and proper tax payment.

Table No. 6.12 Association between 'Penalty for Non-Payment' and 'Strictness of Tax Administration and Laws'

		Penalty for non-payment				Total
		No Influence	Little Influence	Somewhat an Influence	Strong Influence	
Tax administration and tax laws strict in the State	Yes	19%	23%	21%	36%	100%
		28%	31%	41%	34%	33%
	No	25%	24%	16%	36%	100%
		45%	39%	37%	41%	41%
	Don't Know	23%	29%	14%	34%	100%
		27%	31%	22%	25%	26%
	Total	22%	25%	17%	36%	100%
		100%	100%	100%	100%	100%

Source: Primary Survey

Penalty for non-payment of tax is seen as an important determinant in the decision to pay taxes by 53 percent of the respondents. This response implies that a high penalty rate and strict audit and scrutiny would act as a detriment for tax evasion and non-compliance. But with 41percent not considering tax policing strict, the opposite would be the effect where a sense of complacency would set in towards non-compliance of tax.

Table No. 6.13 Gender Differences in Responses to 'Kerala facing Fiscal Crisis' and 'Problems in Tax Collection'

		Gender		Total
		Male	Female	
Kerala is facing a fiscal crisis	Strongly Disagree	56%	44%	100%
		6%	6%	6%
	Disagree	56%	44%	100%
		10%	9%	9%
	Neither Agree nor Disagree	55%	45%	100%
		13%	12%	13%
	Agree	48%	52%	100%
		39%	46%	42%
	Strongly Agree	56%	44%	100%
		32%	28%	30%
	Total	53%	47%	100%
		100%	100%	100%
Problems in tax collection affect the fiscal situation of the state	Strongly Disagree	52%	48%	100%
		8%	9%	8%
	Disagree	63%	37%	100%
		14%	9%	12%
	Neither Agree nor Disagree	57%	43%	100%
		19%	16%	18%
	Agree	43%	57%	100%
		32%	47%	39%
	Strongly Agree	61%	39%	100%
		27%	19%	23%
	Total	53%	47%	100%
		100%	100%	100%

Source: Primary Survey

Irrespective of gender everybody agreed on the 'existence of a fiscal crisis' in the state. However, female respondents who agreed (73%) to the statement are higher than their counterparts while a more number among males have abstained from responding.

In response to 'Problems in tax collection affect the fiscal situation of the state' among the 52 percent of the total male respondents, 58 percent have agreed that the tax collection systems had drawbacks that contributed to the fiscal crisis in the economy.

Table No. 6.14 Gender Differences in Responses to 'Change in Government Improving Tax Collection'

		Gender		Total
		Male	Female	
A change in the government can improve the tax collection	Strongly Disagree	58%	42%	100%
		24%	20%	22%
	Disagree	52%	48%	100%
		44%	45%	45%
	Neither Agree nor Disagree	51%	49%	100%
		13%	14%	14%
	Agree	51%	49%	100%
		13%	13%	13%
	Strongly Agree	45%	55%	100%
		6%	8%	7%
	Total	53%	47%	100%
		100%	100%	100%

Source: Primary Survey

68 percent of the males disagreed that a change in the government would improve tax collection of which 38 percent mark their strong disagreement to the statement while 64 percent of the female respondents also did not agree with notion of an improvement in tax collection due to a change in the government. This general disagreement points to a lack of public confidence in the system of governance in the state.

Table No. 6.15 Gender Differences in Responses to statements on Tax Awareness

		Gender		Total
		Male	Female	
Are you aware of the tax laws of the government?	Yes	51%	49%	100%
		37%	39%	38%
	No	47%	53%	100%
		4%	6%	5%
	Little	54%	46%	100%
		59%	55%	57%
	Total	53%	47%	100%
		100%	100%	100%
Do you know that you are paying the tax even if you don't take the bill?	Yes	53%	47%	100%
		85%	83%	84%
	No	45%	55%	100%
		11%	15%	13%
	Maybe	67%	33%	100%
		4%	2%	3%
	Total	53%	47%	100%
		100%	100%	100%
Asks for bills regularly	Yes	50%	50%	100%
		61%	68%	64%
	No	60%	40%	100%
		22%	16%	19%
	Sometimes	55%	45%	100%
		17%	16%	16%
Not asking for the bills you are supporting evasion	Yes	53%	47%	100%
		55%	55%	55%
	No	49%	51%	100%
		27%	32%	29%
	Maybe	60%	40%	100%
		18%	13%	16%
	Total	53%	47%	100%
		100%	100%	100%

Source: Primary Survey

In response to the question of whether they are aware of the tax laws of the government, only 36.7 percent of males and 39 percent of females expressed their awareness. 58 percent of the males and 54 percent of females had only little awareness of the same. The frequently changing tax regulations posed them difficulty in understanding. The gender differences in the knowledge about tax differences can be due to the limited exposure and the lower inclusion of women in tax matters. People are aware that they are paying taxes irrespective of whether they take the bill or not. Only 12 percent of the total respondents answered ‘No’ to the question. Out of the 84 percent who responded positively to the question, 53 percent were males and 46 percent were females. Out of the total female respondents, around 83 percent were aware that they are paying taxes irrespective of whether they ask the bill or not compared to 85 percent of males who had the same response. Even though the difference between them is very low, the lack of a comprehensive understanding of the tax system is visible among females.

Even when 84 percent of the sample know that accepting bills contribute to the payment of taxes, only 64 percent admit that they have the habit of asking for bills. The rest 35 percent either do not ask for bills or do that only rarely. However, no significant difference can be observed between the two genders. The habit of not asking bills can be assumed to indirectly promote not paying taxes. Only 55 percent of men and 54 percent of women agree that not asking for bills amounts to supporting of tax evasion. This is ironic considering the responses to the question of whether they were aware that making purchases irrespective of whether they receive the bill or not involves tax payment.

Table No. 6.16 Gender Differences in Responses to 'Traders Issuing Bills'

		Gender		Total
		Male	Female	
Traders give the bills only when asked	Yes	47%	53%	100%
		40%	51%	45%
	No	58%	42%	100%
		60%	49%	55%
	Total	53%	47%	100%
		100%	100%	100%
Has any trader ever harassed you when you asked for the bill?	Yes	44%	56%	100%
		3%	4%	3%
	No	53%	47%	100%
		98%	97%	97%
	Total	53%	47%	100%
		100%	100%	100%

Source: Primary Survey

Among the 45 percent who accepted to bills being issued only if asked for, make up for 53 percent of the female respondents accept that bills are given only when asked for, while for the rest 49.29 percent that is not the case. However, while analysing the response of the males only 39 percent approve that bill has to be asked. This difference could be due to a complacent attitude of the people that women would not take a keen interest in such matters and not giving the bill would not be a problem.

A very paltry number of people acknowledged that they were harassed while they asked for the bills, of which the number of females is marginally higher than the males. According to them, the harassment amounted to teasing and demeaning. It was said that those harassed, even after asking, were not provided proper bills.

Table No. 6.17 Gender Differences in Responses to 'Uses of Indirect Tax Revenue' and 'Non-Payment of Tax Affecting State Development'

		Gender		Total
		Male	Female	
Expenditure of income from indirect taxes	Health Services	33%	67%	100%
		2%	4%	3%
	Education	43%	57%	100%
		8%	12%	10%
	Law and Order	56%	44%	100%
		10%	9%	9%
	Road and Transportation	50%	50%	100%
		8%	9%	9%
	Social Welfare (Pensions, Salaries, etc)	58%	43%	100%
		32%	26%	29%
	All of the Above	53%	47%	100%
		41%	40%	40%
	Total	53%	47%	100%
		100%	100%	100%
Non-payment of the indirect tax will affect the state's	Yes	53%	47%	100%
		70%	70%	70%
	No	40%	60%	100%
		10%	17%	13%
	Maybe	62%	38%	100%
		20%	13%	17%
	Total	53%	47%	100%
		100%	100%	100%

Source: Primary Survey

The respondents consider that the income from indirect taxes is used for various purposes like health services, education, meeting law and order, maintenance of roads and transport and also to fulfil committed expenditures like salaries, pensions, etc. 40 percent of the total respondents believe that the tax proceeds from indirect taxes are used for all these sectors where they found it difficult to point out a single sector in particular. Of the 40 percent who agreed upon the use of proceeds for various purposes, 52 percent were males and 47 percent were females. While considering the total female respondents, 40 percent agreed on the varied use for the tax revenue followed by 26 percent who believed that it was being used to pay up salary and pension expenditures. Similarly, among the male respondents too, the majority of the response, 40 percent, centre around the option of ‘All of the above’ followed by 31 percent agreeing on its usage for committed expenditures.

It is noteworthy that even when everyone agrees that the tax proceeds of GST and VAT are used for various infrastructural requirements including health, education and road and transport, 30 percent of women do not believe that the development of the state would be affected if taxes are not paid properly. However, a gender difference is visible in the responses recorded. When only 60 percent of women believed that non-payment of indirect taxes would adversely affect the development of the state, 70 percent of the men knew that inappropriate payment of taxes would hinder state development.

Table No. 6.18 Gender Differences in Responses to ‘Deliberate Non-compliance of Tax’

		Gender		Total
		Male	Female	
Deliberate non-compliance with tax is a major problem	Strongly Disagree	50%	50%	100%
		9%	10%	9%
	Disagree	67%	33%	100%
		22%	12%	17%
	Neither Agree nor Disagree	53%	47%	100%
		17%	16%	16%
	Agree	50%	50%	100%
		24%	27%	25%
	Strongly Agree	48%	52%	100%
		29%	35%	32%
	Total	53%	47%	100%
		100%	100%	100%

Source: Primary Survey

The percentage of women who have agreed that tax non-compliance is a major problem is more than males who have made the same response. The women have also expressed their strong opinion that deliberate non-compliance exists and poses a grave problem. The difference in the response hints at gender differences in perceiving right and wrong.

Table No. 6.19 Gender Differences in Responses to 'Acceptance of Legal Avoidance of Tax'

		Gender		Total
		Male	Female	
Legal avoidance of tax using loopholes in laws is acceptable	Strongly Disagree	51%	49%	100%
		14%	15%	14%
	Disagree	47%	54%	100%
		13%	16%	14%
	Neither Agree nor Disagree	56%	44%	100%
		17%	15%	16%
	Agree	60%	40%	100%
		28%	20%	24%
	Strongly Agree	48%	52%	100%
		29%	34%	31%
	Total	53%	47%	100%
		100%	100%	100%

Source: Primary Survey

The response to the statement, 'legal avoidance of tax through loopholes' is quite worrisome from the government's point of view. 55 percent of the total respondents agree that avoiding tax payment through loopholes in the law is acceptable. 54 percent of women and 56 of men agree to legal avoidance. Even when the acceptance is general, the percentage of women who accept legal avoidance of tax is lower than men. However, the attitude of the public that legal avoidance is acceptable poses a serious concern for the government regarding the mobilisation of revenue.

Table No. 6.20 Gender Differences in Responses to 'Tax being Mandatory by Law' and 'Belief in doing the Right thing'

Statement	Response	Male	Female	Total
Mandatory by law	No Influence	43%	57%	100%
		10%	15%	12%
	Little Influence	52%	48%	100%
		15%	15%	15%
	Somewhat an Influence	47%	53%	100%
		17%	22%	19%
	Strong Influence	57%	43%	100%
		58%	49%	54%
Personal belief that you should do the 'right thing'	No Influence	50%	50%	100%
		12%	13%	13%
	Little Influence	61%	39%	100%
		18%	13%	15%
	Somewhat an Influence	51%	49%	100%
		18%	20%	19%
	Strong Influence	52%	48%	100%
		52%	54%	53%
	Total	53%	47%	100%
		100%	100%	100%

Source: Primary Survey

The decision to pay tax is strongly influenced by that fact that it is mandated by law. 48.5 percent of women concede to a strong influence of the law in paying tax while the respective response is 58 percent among men. The apprehension that non-payment of tax would lead to prosecution does not hold a strong influence on their decision to pay tax. Rather the influence is only little. This could possibly be interpreted as urging people to make tax payment by intensifying the penalty for non-payment may not help in raking out more revenue. Another possibility of the less influence of prosecution due to non-payment is that lack of faith in the system that the non-payers would be identified. Only 28 percent of men consider prosecution as a strong factor in decision to pay tax while only 21 percent of women opine the same.

Respondents across different age groups mostly agree that tax is being paid since it is an obligation. 52 percent of the respondents in the 20-30 age group believe taxes should be paid since it is an obligation. The popular opinion of people in the 30-40 age group taxes are paid in order to avail public facilities in return with 42 percent agreeing on the same. The response of other age groups also tows the line with those of 30-40 age groups.

The response to the statement that deliberate tax evasion being a major problem was mixed. Only 32 percent of the respondents believe it to be a major problem. Of the 32 percent who accepts deliberate non-compliance to be a problem, majority are in the 20-30 age group. A strong disagreement to the statement was largely expressed by people in the age group of 40-50.

The results of the survey among consumers reflect a dissatisfaction in the services received from the government. The people attribute the fiscal crisis to corruption and inefficient expenditure management on the part of the government. Prevalence of large scale tax evasion is accepted along with a majority considering tax administration to be lenient on the tax evaders. Even when penalty is considered an influence on the decision to pay, legal avoidance of tax is considered acceptable. The results of the study on consumer behaviour does not paint a favourable picture for the government.

6.2 Analysis of the Tax Compliance Behaviour of Traders

To study the tax compliance behaviour pertaining to indirect tax, the motivation of the traders, businessmen, were studied. The motivation to make payment and the factors that influence tax paying decisions were analysed. Primary survey was conducted to analyse the tax compliance behaviour among the traders. Questions based on attitudes, reactions and behaviours were administered to 100 entrepreneurs through questionnaires. The sample consists of traders from different sectors, including manufacturing, trading and service providers. The results of the survey have been presented below.

Table No. 6.21 Association between the Type of Shop and Type of Bill Issued

		What type of bill is issued to the customers?		Total
		Electronic bill	Written Bill	
Type of Shop	Large	54%	46%	100%
		21%	35%	26%
	Small	78%	22%	100%
		42%	24%	36%
	Medium	63%	37%	100%
		36%	41%	38%
	Total	66%	34%	100%
		100%	100%	100%

Source: Primary Survey

The shop owners were asked the question on what kind of bills they provided to the customers. 66 percent of the respondents agreed that electronic bill was meted out. The highest positive response was from the small-scale enterprises, 77 percent. 46 percent and 37 percent of the large scale and medium scale businessmen, respectively, continues to provide a written bill to the customer. Handing out written bills raises questions on the lack of transparency in their respective sales accounts.

Table No. 6.22 Association between Responses to Lending Bills and Consumers Asking for Bills

<table>
<tr><td colspan="2" rowspan="2"></td><td colspan="2">Bills are given to the consumers regularly</td><td colspan="2">Consumers ask for the bills</td><td rowspan="2">Total</td></tr>
<tr><td>Yes</td><td>No</td><td>Yes</td><td>No</td></tr>
<tr><td rowspan="5">Bills issued only when asked</td><td rowspan="2">Yes</td><td>60%</td><td>40%</td><td>74%</td><td>26%</td><td>100%</td></tr>
<tr><td>36%</td><td>61%</td><td>48%</td><td>33%</td><td>43%</td></tr>
<tr><td rowspan="2">No</td><td>81%</td><td>19%</td><td>61%</td><td>39%</td><td>100%</td></tr>
<tr><td>64%</td><td>39%</td><td>52%</td><td>67%</td><td>57%</td></tr>
<tr><td rowspan="2">Total</td><td>72%</td><td>28%</td><td>67%</td><td>33%</td><td>100%</td></tr>
<tr><td></td><td>100%</td><td>100%</td><td>100%</td><td>100%</td><td>100%</td></tr>
</table>

Source: Primary Survey

The businessmen agree to give bills to the customers regularly irrespective of whether asked or not. However, of those who responded that they do not regularly give bills, 60 percent accept that they do provide bills only if asked. This hints at the possibility that bills may not be properly generated according to the actual sales. The response of 57 percent of the businessmen who accept that bills are given only when asked gains prominence since customers does not ask for bills according to 33 percent of them. This once again raises the question of accuracy of the sales data.

Table No. 6.23 Association between Customers asking for Bills and Frequency of Record Keeping

<table>
<tr><td colspan="2" rowspan="2"></td><td colspan="2">Records the bill amount regularly</td><td rowspan="2">Total</td></tr>
<tr><td>Yes</td><td>No</td></tr>
<tr><td rowspan="4">Give bills to the consumers regularly</td><td rowspan="2">Yes</td><td>82%</td><td>18%</td><td>100%</td></tr>
<tr><td>77%</td><td>57%</td><td>72%</td></tr>
<tr><td rowspan="2">No</td><td>64%</td><td>36%</td><td>100%</td></tr>
<tr><td>23%</td><td>43%</td><td>28%</td></tr>
<tr><td rowspan="2"></td><td rowspan="2">Total</td><td>77%</td><td>23%</td><td>100%</td></tr>
<tr><td>100%</td><td>100%</td><td>100%</td></tr>
</table>

The percent of respondents who do not give bills regularly is 28 percent. However, among the 28 percent 36 percent neither records the sales regularly. The results show that 23 percent do not record bills on a daily basis. Even though 57 percent amongst them certifies that they mete out bills to the consumers, questions on its accuracy is pertinent. The 23 percent is to be viewed as a leakage in the revenue proceeds. It is welcoming that 77 percent are recording the bills regularly, however, 64 percent does not issue bills regularly. Mere recording of the sales amount without issue of bills raises chances of under reporting.

Table No. 6.24 Association between the Changes in Book-Keeping and Filing Tax Returns under Various Tax Regimes

		Maintains proper day to day sales account [Sales Tax]		Maintains proper day to day sales account [VAT]		Maintains proper day to day sales account [GST]		
		Yes	No	Yes	No	Yes	No	Total
Regular filing of tax under sales tax	Yes	75%	25%	86%	14%	87%	13%	100%
		90%	51%	81%	55%	78%	67%	76%
	No	25%	75%	63%	38%	79%	21%	100%
		10%	49%	19%	45%	22%	33%	24%
	Total	63%	37%	80%	20%	85%	15%	100%
		100%	100%	100%	100%	100%	100%	100%
Regular filing of tax under VAT	Yes	78%	22%	91%	9%	91%	9%	100%
		92%	43%	84%	35%	79%	47%	74%
	No	19%	81%	50%	50%	69%	31%	100%
		8%	57%	16%	65%	21%	53%	26%
	Total	63%	37%	80%	20%	85%	15%	100%
		100%	100%	100%	100%	100%	100%	100%
Regular filing of tax under GST	Yes	65.9%	34.1%	82.4%	17.6%	87.9%	12.1%	100.0%
		95.2%	83.8%	93.8%	80.0%	94.1%	73.3%	91.0%
	No	33.3%	66.7%	55.6%	44.4%	55.6%	44.4%	100.0%
		4.8%	16.2%	6.3%	20.0%	5.9%	26.7%	9.0%
	Total	63.0%	37.0%	80.0%	20.0%	85.0%	15.0%	100.0%
		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Source: Primary Survey

Even when 76 percent of the businessmen file their tax returns regularly, 25 percent amongst them are not maintaining a proper sales record daily. The accuracy of such payments is dubious. A change in the percent of people who keep daily sales records can be witnessed with reforms in the tax systems. The percent has declined with the introduction of VAT and GST. Tax papers are considered easy to complete by 59 percent of those who have completed tax return forms. Easiness in filing and completing tax papers assure better compliance of tax rules.

Table No. 6.25 Association between responses to 'the Reason for Tax Payment' and 'Tax is a Main Source of Revenue', 'Non-Payment of Tax Affecting Development'

		Taxes are the main source of revenue for the government		Non-payment of the indirect tax will affect the state's Tax revenue and development		Total
		Yes	No	Yes	No	
Why do you pay taxes?	It is an obligation	83%	17%	89%	11%	100%
		32%	60%	42%	15%	35%
	to avoid punishment	88%	13%	81%	19%	100%
		16%	20%	18%	11%	16%
	To get facilities	96%	4%	59%	41%	100%
		52%	20%	40%	74%	49%
	Total	90%	10%	73%	27%	100%
		100%	100%	100%	100%	100%

Source: Primary Survey

The response to that the taxes are paid in order to avail public facilities go in hand with the response to the statement that taxes are the main source of revenue for the government according to public opinion. The question of why taxes are being paid was meted out to the traders. Majority of the response, comprising of 49 percent opined that tax were being paid in order to get public facilities from the government. 35 percent of the respondents considered payment of tax as their obligation to the government. The response to the question of how non-payment of indirect tax would affect revenue and development of the state, resonates with the above reaction. Among the 49 percent who feel payment of tax is necessary in order to avail facilities, 59 percent opine that non-payment would gravely impact the revenue and development of the state. Similarly, 88.5 percent of the respondents who consider payment of tax as an obligation also admit that development will be affected through non-payment if indirect tax.

Table No. 6.26 Association between responses to 'Responsibility for Payment of Tax' and 'Tax is a Main Source of Revenue', 'Non-Payment of Tax Affecting Development'

		Taxes are the main source of revenue for the government		Non-payment the indirect tax will affect the state's Tax revenue and development		
		Yes	No	Yes	No	Total
Payment of tax is our responsibility	Yes	90%	10%	74.5%	25.5%	100.0%
		98%	100%	100.0%	92.6%	98.0%
	No	100%	0%	0.0%	100.0%	100.0%
		2%	0%	0.0%	7.4%	2.0%
	Total	90%	10%	73.0%	27.0%	100.0%
		100%	100%	100.0%	100.0%	100.0%

Source: Primary Survey

Taxes are considered to be the main source of revenue for the government by 90 percent of the traders. It is also noteworthy that of the 90 percent, 97 percent consider payment of tax as their responsibility. 73 percent of the businessmen believe that paucity in indirect taxes would affect the state's revenue which is also reflected in their response to the question that indirect tax is the main source of revenue for the government. When 98 percent consider payment of tax as their responsibility, 73 percent admit that non-payment of tax would affect the development and also revenue of the state. The fact that many consider it a responsibility is beneficial for the government.

Table No. 6.27 Association between responses to 'Uses of Indirect Tax' and 'Tax are a main source of revenue'

		Expenditure of Income from indirect tax						Total
		Health Services	Education	Law and Order	Roads and Transportation	Social Welfare	All of the above	
Taxes are the main source of revenue for the government	Yes	16%	6%	2%	6%	11%	60%	100%
		74%	100%	100%	100%	83%	95%	90%
	No	50%	0%	0%	0%	20%	30%	100%
		26%	0%	0%	0%	17%	5%	10%
	Total	19%	5%	2%	5%	12%	57%	100%
		100%	100%	100%	100%	100%	100%	100%

Source: Primary Survey

Table No. 6.28 Association between responses to 'Non-payment of Tax affecting State's Development' and 'Tax are a main source of revenue'

		Non-payment of the indirect tax will affect the state's Tax revenue and development		
		Yes	No	Total
Taxes are the main source of revenue for the government	Yes	74%	26%	100%
		92%	85%	90%
	No	60%	40%	100%
		8%	15%	10%
	Total	73%	27%	100%
		100%	100%	100%

Source: Primary Survey

Revenue from indirect tax is used for different purposes like health services, education, law and order, roads and also for social welfare with 57 percent agreeing to the same. Taxes are considered as the main source of government by 90 percent of the respondents. However, even when a huge majority consider tax as the main source of revenue, 26 percent amongst them does not deem the non-payment of tax to affect the state's development. It is quite thought provoking since among the same respondents, 95 percent considered the revenue from indirect tax to be used to meet an array of public services.

Table No. 6.29 Association between responses to 'Problems in Tax Collection Causing Fiscal Crisis' and 'Tax are a main source of revenue'

		Fiscal crisis in Kerala is due to the problems in tax collection		
		Yes	No	Total
Taxes are the main source of revenue for the government	Yes	59%	41%	100%
		93%	86%	90%
	No	40%	60%	100%
		7%	14%	10%
	Total	57%	43%	100%
		100%	100%	100%

Source: Primary Survey

The respondents who believe that problems in tax collection have aggravated the fiscal crisis problem also agree that non-payment of indirect tax would affect the revenue of the state and consequently its development. The percent of people who have agreed to both the statements sum up to 68 percent. This response shows that the public believes that the tax system and administration in the state is flawed.

Table No. 6.30 Association between responses to 'Problems in Tax Collection Causing Fiscal Crisis' and 'Change in Government Improving Tax Collection'

		The fiscal crisis in Kerala is due to the problems in tax collection		Total
		Yes	No	
A change in government will improve the tax collection?	Yes	34%	66%	100%
		23%	58%	38%
	No	71%	29%	100%
		77%	42%	62%
	Total	57%	43%	100%
		100%	100%	100%

Source: Primary Survey

It is disconcerting to note that people do not consider that a change in the government would bring about any improvement in the tax collection system. 62 percent do not believe that a change in the government would bring in any changes in the tax collection and 77 percent amongst consider glitches in tax collection as a reason for fiscal crisis. This can be read as that people do not consider the government to work towards mitigation of fiscal crisis. Corruption among the officials and legislature was one of the most commonly opined factors that was the cause for the crisis. The general notion of all those in power are corrupted is signalled through this response. Only 22 percent of the respondents feel that a change in the government would bring a change in tax collection. And 43 percent attribute the fiscal crisis to the natural calamities over the past few years.

Table No. 6.31 Association between responses to 'Services Received from the Government' and 'Uses of Indirect Taxes'

		Services received from the government corresponds to the tax being paid				
		Strongly Disagree	Disagree	Neither agree nor disagree	Agree	Total
Expenditure of income from indirect tax	Health Services	5%	37%	47%	11%	100%
		5%	21%	39%	8%	19%
	Education	20%	40%	40%	0%	100%
		5%	6%	9%	0%	5%
	Law and Order	50%	50%	0%	0%	100%
		5%	3%	0%	0%	2%
	Roads and Transportation	20%	60%	20%	0%	100%
		5%	9%	4%	0%	5%
	Social Welfare	33%	50%	17%	0%	100%
		20%	18%	9%	0%	12%
	All of the above	21%	25%	16%	39%	100%
		60%	42%	39%	92%	57%
	Total	20%	33%	23%	24%	100%
		100%	100%	100%	100%	100%

Source: Primary Survey

The response to what is the revenue from indirect tax being used is diverse. The responses revolve majorly around health services, education and also for other purposes such as social welfare, roads and transportation and law and order. 57 percent of the respondents believe that the income from indirect tax is used for all these purposes. However, the response to the question regarding the services received according to the tax paid was rather dismal. Among the 57 percent who said that indirect tax income was used for all the purposes, 45 percent do not agree that they are receiving the services according to the tax they pay.

One of the questions meted out to the businessmen was whether the services rendered by the previous governments were in line with the taxes paid. The question was met by disagreement by 58 percent amongst which 32 percent expressed their strong disagreement. The response to these questions showcases the lack of public confidence for the government.

Table No. 6.32 Association between responses to 'Tax Evasion being a Major Problem' and its Extent

		How widespread is tax evasion				Total
		Very Widespread	Fairly Widespread	Not Widespread	Don't Know	
Tax evasion a serious problem	Not a problem	50%	36%	13%	1%	100%
		83%	75%	83%	17%	76%
	Minor problem	57%	43%	0%	0%	100%
		17%	17%	0%	0%	14%
	Moderate problem	0%	50%	33%	17%	100%
		0%	8%	17%	17%	6%
	Major problem	0%	0%	0%	100%	100%
		0%	0%	0%	67%	4%
	Total	46%	36%	12%	6%	100%
		100%	100%	100%	100%	100%

Source: Primary Survey

A cross tabulation on the responses to two statements opens up a startling result. While analysing the response to the question of how widespread is the tax evasion problem, 82 percent of the respondents claim that the problem is fairly widespread, or rather very widespread. However, the worrying factor is that none of this 82 percent consider tax evasion a major problem. This definitely indicates that even though people are aware of tax evasion around them it is not considered a serious issue.

Table No. 6.33 Association between responses to 'Existence of Tax Evasion' and 'Increase in Tax Evasion'

		A culture of tax evasion exists among the traders			Under reporting of sales/ over stating of purchases is done by the traders to evade tax			Total
		Yes	No	Refuse to Answer	Yes	No	Don't Know	
Deliberate tax evasion is increasing	Yes	58%	30%	12%	54%	14%	32%	100%
		53%	61%	70%	63%	26%	90%	57%
	No	65%	35%	0%	58%	35%	6%	100%
		32%	39%	0%	37%	35%	10%	31%
	Don't Know	75%	0%	25%	0%	100%	0%	100%
		15%	0%	30%	0%	39%	0%	12%
	Total	62%	28%	10%	49%	31%	20%	100%
		100%	100%	100%	100%	100%	100%	100%

Source: Primary Survey

Conscious tax evasion was said to be on the rise by 57 percent entrepreneurs. Of the 57 percent who consider tax evasion is increasing, 53 percent believe that traders resort to tax evasion as a part of their activities. It should be noted that a 10 percent of the respondents have chosen not to respond to whether tax evasion exists among the traders. The fact that the respondents are aware of tax evasion around raises question on the tax administration since the administration is not able to get hold of the evaders and hence continue their acts audaciously. The entrepreneurs accept the existence of a culture of overstating or under reporting of sales and purchases with the intention of evading taxes. This response complements the response to whether deliberate tax evasion is increasing or not. 54 percent of those who believe deliberate tax evasion is increasing also accept that under reporting and over stating of sales accounts exists.

Table No. 6.34 Association between responses to 'Chance of Detecting Tax Evasion' and 'Increase in Deliberate Evasion'

		Chance of being caught for tax evasion					Total
		Don't Know	Not at all likely	Not Likely	Quite Likely	Very likely	
Deliberate tax evasion is increasing	Yes	12%	9%	26%	11%	42%	100%
		78%	83%	58%	67%	48%	57%
	No	6%	3%	35%	10%	45%	100%
		22%	17%	42%	33%	28%	31%
	Don't Know	0%	0%	0%	0%	100%	100%
		0%	0%	0%	0%	24%	12%
	Total	9%	6%	26%	9%	50%	100%
		100%	100%	100%	100%	100%	100%

Source: Primary Survey

The deliberate tax evasion is said to be increasing even when people perceive the chance of being caught for evasion as very high. Out of the 57 percent who consider purposeful tax evasion to increase, 42 percent feel the possibility of being caught for tax evasion as highly likely. However, of the same 57 percent, 26 percent do not feel that evaders would be detained. This reflects the perception about tax authorities and that people can get off with such charges by paying monetarily.

Table No. 6.35 Association between responses to 'Peer Influence for Tax Evasion' and 'Increase in Deliberate Evasion'

		Others are evading taxes; hence why should I pay?		Total
		Yes	No	
Deliberate tax evasion is increasing	Yes	47.4%	52.6%	100.0%
		65.9%	50.8%	57.0%
	No	45.2%	54.8%	100.0%
		34.1%	28.8%	31.0%
	Don't Know	0.0%	100.0%	100.0%
		0.0%	20.3%	12.0%
	Total	41.0%	59.0%	100.0%
		100.0%	100.0%	100.0%

Source: Primary Survey

The attitude of the businessmen is revealed when they were asked their reaction to 'others are evading tax so why should I pay?' Response to this reveals that such an attitude is not predominant amongst them with 59 percent opposing the statement. However, the remaining 41 percent consider whether to pay based on the behaviour of the others. The 41 percent gains prominence since 65 percent of the indirect taxpayers feel that deliberate tax evasion is on the rise. Hence this would be the bunch of people who may not opt to pay the tax since they perceive that their peers do not make accurate payments.

Table No. 6.36 Association between Influence of Tax Attitudes and 'Righteousness of Tax Evasion'

		Tax evasion is ethical if everyone is doing it?		Total
		Yes	No	
Because it is the law	No Influence at all	50.0%	50.0%	100.0%
		5.4%	3.2%	4.0%
	Little Influence	75.0%	25.0%	100.0%
		24.3%	4.8%	12.0%
	Somewhat an Influence	32.0%	68.0%	100.0%
		21.6%	27.0%	25.0%
	Strong Influence	30.5%	69.5%	100.0%
		48.6%	65.1%	59.0%
Belief that other taxpayers are declaring and paying honestly	No Influence at all	42.9%	57.1%	100.0%
		16.2%	12.7%	14.0%
	Little Influence	83.3%	16.7%	100.0%
		13.5%	1.6%	6.0%
	Somewhat an Influence	85.7%	14.3%	100.0%
		16.2%	1.6%	7.0%
	Strong Influence	27.4%	72.6%	100.0%
		54.1%	84.1%	73.0%
Personal belief that you should do the 'right thing'	No Influence at all	25.0%	75.0%	100.0%
		2.7%	4.8%	4.0%
	Little Influence	100.0%	0.0%	100.0%
		8.1%	0.0%	3.0%
	Somewhat an Influence	100.0%	0.0%	100.0%
		29.7%	0.0%	11.0%
	Strong Influence	26.8%	73.2%	100.0%
		59.5%	95.2%	82.0%
Total		37.0%	63.0%	100.0%
		100.0%	100.0%	100.0%

Source: Primary Survey

It is reassuring to note that 63 percent do not consider tax evasion ethical even when everyone does. The response to whether tax evasion is ethical if all are evading and how much of an influence does being mandated by law have on decision to pay tax provides relief to the tax administration since 65 percent of those who do not accept tax evasion as moral also concede that law to have a strong influence on their motivation for tax payment. The belief that the right thing should be done drives 82 percent of the businessmen in paying tax. Of the 82 percent who find it as a strong influence 73 percent do not consider tax evasion ethical whatever the circumstances are. The above response too, prove promising to the government. It is promising to note that 59 percent of the respondents do not consider evasion of tax even if their peers evade. The personal belief to remain on the side of righteousness is the strong influence for 82 percent of the traders. However, it is looks ironical that doing the 'right thing' plays a strong influence for 82 percent of which 60 percent have the thought that 'if others evade taxes, then why should I pay'.

Table No. 6.37 Association between Responses to Factors Influencing Tax Payment and the Reason for Paying Taxes

		Your taxes are used to pay for public services			Concern that you will be prosecuted				Total
		Little Influence	Somewhat an Influence	Strong Influence	No Influence at all	Little Influence	Somewhat an Influence	Strong Influence	
Why do you pay taxes?	It is an obligation	3%	9%	89%	0%	9%	11%	80%	100%
		13%	43%	36%	0%	38%	57%	34%	35%
	to avoid punishment	0%	6%	94%	0%	13%	0%	88%	100%
		0%	14%	18%	0%	25%	0%	17%	16%
	To get facilities	14%	6%	80%	4%	6%	6%	84%	100%
		88%	43%	46%	100%	38%	43%	49%	49%
Total		8%	7%	85%	2%	8%	7%	83%	100%
		100%	100%	100%	100%	100%	100%	100%	100%

Source: Primary Survey

When 49 percent of the respondents pay taxes for obtaining facilities, 80 percent amongst them consider financing of public services through taxes as a strong influence for the decision to pay tax. With the funding of public services playing strong role in the decision for tax payment the quality of services provided by the government holds great significance in their compliance with tax. Very predictably, the respondents who reasoned payment of taxes to avoid punishment considered the fear of being prosecuted as a very strong influence on tax compliance.

The results of the survey for traders depict an opinion similar to that of the consumers. The lack of confidence in the government is visible among the traders in their opinion that a change in the governments would bring no change in tax collection. Even when a large majority of them agree to regular tax filing, a significant share of them do not regular record their daily sales raising questions of accuracy. However, it is reassuring to note that a large majority (63 percent) of the respondents did not consider tax evasion ethical even if others were doing so.

However, traders agree to the prevalence of widespread under reporting/ over reporting of sales figures to avoid tax payment amongst themselves even when they perceive the chance of detection of non-payers to be high. This points to the lack fear among the traders towards punishments and penalties. There is mixed opinion among traders on the corruption among the Tax administrations, which reduces their tax paying interest

6.3 Factors affecting Tax Compliance

The determinants of tax compliance were identified by constructing a tax compliance Index. Based on the responses to the questionnaires, the variables were categorised into different factors. Based on these factors a tax compliance index was constructed using the Ferguson's index method.

6.3.1 Factors influencing Compliance

The variables were categorized into Tax Morale, Tax Knowledge, Subjective Norms, Attitude towards the behavior, Governance, Tax Administration, Tax Structure, Economic Deterrence and Compliance factors.

Table No. 6.38 Total Compliance (percentage)

Variables	Traders	Consumers
Tax Morale	72.11	67.83
Tax Knowledge	54.2	67.33
Subjective Norms	63	59
Attitude towards behaviour	53.67	21.3
Governance	49.25	41.5
Tax administration	54.16	49
Tax System/Structure	66.4	59.5
Economic Deterrence	49.67	51
Compliance Factors	64.67	63.8

Source: Primary Survey

The compliance values of consumers and traders with respect to the factors influencing the decision to pay tax imply that all the factors are significantly strong in the decision of compliance, the strongest being the role of tax morale. Economic deterrence comprising of penalties and fines for non-payment is one of the least deciding factors in tax compliance for traders. However, attitude towards a behaviour is the least influential factor according to consumers. This could be attributed to the fact that consumers do not have much role in the payment of indirect taxes.

Table No. 6.39 Total Compliance based on Fergusson Weighted Index Method

Variables	Consumers	Traders	**Total**
Tax Morale	12.33	11.0	**11.6**
Tax Knowledge	8.16	5.3	**6.73**
Subjective Norms	8.94	8.6	**8.77**
Attitude towards behaviour	1.94	3.2	**2.57**
Governance	2.52	3.9	**3.21**
Tax administration	5.94	6.4	**6.17**
Tax System/Structure	3.61	6.5	**6.86**
Economic Deterrence	3.09	8.7	**5.8**
Compliance Factors	9.67	7.6	**8.6**
Total	**5.44**	**6.8**	**6.70**

Source: Primary Survey

The Fergusson Weighted Index values zeroes in on the role of tax morale in tax compliance. The compliance factors, which included the billing mechanisms, formed the second ranked factor. Even when they respondents expressed their dissatisfaction towards the government and tax administration, they were considered to occupy the last places in the decision to pay taxes.

The above index reveals that tax morality, subjective norms and compliance factors are strong factors that influence the tax compliance behaviour of the public. The response of the consumers portrays tax knowledge also as a strong factor. Governance and economic deterrence hold very less significance.

6.4 Inferences

This chapter examines the tax compliance behavior of traders and consumers based on their economic, social/fiscal psychological factors. The major inferences derived from this chapter are the following.

1. Tax morale is a strong factor in tax compliance. Prevalence of a sense of righteousness drives the public to comply with the tax laws.
2. The tax administration system of the state is opined as poor. A general attitude is that the services and developmental initiatives from the part of the state is not in tune with the tax that people pay. Therefore, this fiscal psychology may influence the people to desist from paying tax regularly and systematically.
3. Traders were found regular in paying the tax and are aware of its social and economic significance. Traders feel that the possibility of detection is high but do not consider the consequence of detection serious. Therefore, deterrence does not play a significant role in the attitude and behaviour of traders towards tax and compliance.
4. The consumers receive bills from big shops and for bulk purchases even without demand for bills. But in general, the demand for bill is not that prevalent among the consumers even when they agree to the non-payment of tax by traders without proper bills. Consumers are aware of the social and economic importance of paying tax.

People are aware of the economic, social and moral commitment of paying tax, but they keep apprehension about the services rendered and developmental activities initiated by the state is up to the expectation of the taxpayers. Therefore, the study argues that the attitude and behavior of the people towards the tax and compliance is also an important factor that affects revenue mobilization in the State.

CHAPTER VII

SUMMARY, FINDINGS AND POLICY IMPLICATIONS

A perpetually depleting state budget has welcomed Kerala's successive governments. Kerala has long had poor fiscal management, despite the fact that the explanations given are frequently seen as a part of the political blame game. Over the years, people have argued and pondered the causes behind this. The rising public spending is cited as one of the main causes of the state treasury's depletion. The committed expenses made to pay for salaries, pensions, and interest payments are the causes of this. The majority of the state's overall expenditures are for revenue-related expenses. The majority of the state's capital investments go toward building roads and bridges. Natural disasters wreaked havoc on the state economy, claiming the lives and livelihoods of many people and wreaking havoc on the economy's productive sectors. The Okchi cyclone in 2017, unprecedentedly strong floods in 2018 and 2019, the attack by the Nipah virus infection in 2018 and 2019, and the advent of the Covid-19 pandemic in 2020 are among these shocks. Kerala's growth rates, which were higher than the national average, began to decline in 2019-20.

The fact that the state is not able to raise the required revenue through sales tax/VAT opens the problem of tax administration and tax enforcement which hints at a lack of efficiency on the part of the government. The limited mobilisation of the tax revenue also raises doubts about tax compliance, the blame for which not only rests with the traders who refuse to issue bills to the consumers but also with the consumers who do not ask for the bill. Why can't the state government make sure that its citizens are paying their taxes correctly? What motivates people to avoid paying their taxes? Is it a complaint about the government services they received in exchange for their taxes? Is it because they are smug about the fact that everyone else does the same thing? Exist any additional factors that affect tax compliance? These are the key issues that the study aims to investigate.

The study seeks to find answers to these questions by examining the fiscal crisis in Kerala in the light of the composition and pattern expenditures of the state, analyzing the trend and identifying the factors determining mobilization of tax revenue and by studying the tax compliance behaviour and the factors affecting it.

A review of studies earlier studies revealed that the state of Kerala has been experiencing a fiscal crisis for some time now, with successive governments failing to realise the potential revenue collection. The latter is observed as the main cause of the fiscal crunch and has led to an increase in expenditure on both the expenditure side and revenue side. Studies on tax compliance tend to focus on deterrence elements like penalties and punishments in addition to how complex tax structures affect tax payment. A significant question that arises is whether the state's system for collecting taxes is the only one to blame or if there are additional elements that haven't been considered. The current study aims to examine another aspect of the state's revenue-related issue, specifically the attitude and behaviour of businesses and consumers about taxes and tax compliance. This dimension has not yet been explored.

The study is based on the following hypotheses.

1. Committed expenditures and limited scope for revenue mobilization directly influence fiscal crisis.
2. Fiscal crisis is more associated with the pattern of revenue and expenditure rather than the volume of revenue and expenditure
3. Attitude of the government, tax governance and tax compliance are associated.

The first and second objectives were achieved completely on the basis of secondary data. The objectives of examining state expenditure and state revenue were satisfied by drawing out their trends and patterns over the period. Based on the analysis of revenue and expenditure, the existence of a fiscal crisis was evaluated and proved. The secondary data sources used were Economic Review, reports of the Finance Commissions at the Centre and the State, reports of the Kerala Public Expenditure Review Committees, Budget Documents of Government of Kerala, Comptroller and Auditor General Reports of Kerala and publications of the Reserve Bank of India; State Finances: A Study of Budgets and the Handbook on Statistics of Indian Economy for various years. Data was collected for the period from 1990-91 to 2020-21.

A fiscal performance index was devised to assess the state's financial performance. In this study, five major sub-indices representing various facets of fiscal performance are calculated from ten minor sub-indices using ten indicators. The Deficit Index, Revenue Efficiency Index, Expenditure Quality Index, Debt Index, and Debt Sustainability Index are the indexes that make up the Fiscal Performance Index. The sub-indices are constructed from the evaluated fiscal components using the relative distance approach. This method standardises the level of each indicator to a value between 0 and 100.

The third objective was achieved through the use of primary data. Primary data was collected through direct interviews with Traders and Consumers.The interviews were conducted based on well-structured questionnaires. The sample consisted of 300 consumers and 100 businessmen as respondents from three districts randomly. The districts were chosen based on their prominence in Kerala's trade and commerce, namely, Ernakulam, Thiruvananthapuram and Calicut. The variables selected to meet this objective are; billing mechanism, Attitude towards paying taxes, Morality, Tax evasion, Tax Administration, and Tax awareness. A tax compliance index was created using Fergusson's weighted index method.

The framework for the study has been established by an analysis of the theories of public expenditure, public revenue, tax revenue in particular, and tax compliance theories, which revealed the causes and variables impacting each. The following conclusions were drawn.

1. According to Wagner's State Law, public spending on the part of the state rises as it develops. The application of Wagner's law supports increasing government spending. Kerala is heavily dependent on public spending because its development is welfare oriented. The state's extensive revenue expenditures are justified by a welfare-oriented perspective.

2. The recent natural disasters, such as the pandemic, floods, and cyclones, would also significantly speed up the state's rising expenditure. Peacock and Wiseman's hypotheses concerning expenditure increasing stepwise serve as confirmation for this.
3. Taxation theories that describe how public funds are raised have not been able to account for Kerala's government's declining revenue. According to the optimum taxation concept, tax income would grow if it were used to promote social welfare. Even while the state is praised for adopting a pro-people policy and putting a priority on social services, the inability to raise the necessary funds raises concerns about the effectiveness of the expenditure made.
4. The theories of tax compliance set the path for the study by identifying the factors that affect tax compliance. From the theories on compliance, it can be drawn that the decision to comply with tax rules depends on factors like tax penalties, social norms, attitudes, cultural factors, perceived opportunity to evade, tax morale, tax knowledge and the interaction between tax authorities and taxpayers affect compliance significantly.

7.1 Major Findings

Expenditure of the state was evaluated along the framework set by the theories. The results that emerged from the analysis are as follows.

1. Capital spending of the state is set on a downward trajectory because of the rising revenue deficit, despite the FRBM Act's primary goals of adhering to the golden rule of eliminating revenue deficit and sprucing up capital expenditure to augment economic growth. In the state, almost all revenue expenditures have evolved into committed expenditures.
2. Since the Revenue Account does not balance as required by the KFR Act 2003, the state incurs debt to make up the shortfall, making the Capital Expenditure a residuary item after all other obligations have been satisfied.

This is the cause of the low and extremely irregular trend in capital expenditure growth.

3. An assessment of the quality of expenditure points towards the large scope for rationalising expenditure in general and revenue expenditure in particular.
4. It is also worth noting that salary, pensions and interest have not increased drastically over the years. The committed expenditure of the State shows not much of an increase in these years. However, the level of expenditure influences to fiscal crisis.

Nevertheless, there has been a significant decline in state finances despite the trend of expenditure remaining largely consistent over time. Thus, the growing fiscal crisis is a sign that state revenue, particularly tax revenue, is insufficient. This calls for the necessity of careful revenue mobilisation.

The state revenue and its components were analysed to trace the trends and factors of revenue mobilisation. The analysis yielded the following inferences.

1. Own revenue mobilisation in the State has continued to be below anticipated levels. The tax revenue growth has remained very low dropping to dismal levels at -0.63 percent and -5.29 percent in 2019-20 and 2020-21 respectively
2. The introduction of GST has not brought many changes in the revenue mobilisation of the state. The increase in revenue mobilisation, as guaranteed with the introduction of GST, has not manifested in the case of Kerala.
3. Kerala's primary challenges with regard to non-tax income mobilisation are the state's public sector firms' insignificant dividend and profit contributions and the steadily declining contribution of its economic and social services.
4. It is also inferred that the major fluctuations in the growth trajectory of state revenue were the years of fluctuations in central transfers to the state.

5. The relative contribution of sales tax/vat in terms of has declined over the last five years. Since this component of the state’s own tax revenue is having the highest share, the reduction in its growth rate significantly influences the tax revenue.

According to the discussion so far, Kerala's fiscal problem resulted from increased spending, especially wasteful spending, and the government's inability to mobilise revenue sources because of its rigidities. The continuous discussions on these topics have brought up factors such as rising revenue expenditure or recurring expenditure without revenue mobilisation, loss-making state enterprises, tax leakages, faulty planning, etc.

1. The performance index values recording a maximum of only 52, reflect the dismal condition of the state finances. The results prove that the economy is reeling under an extreme fiscal crisis with imminent threats of unsustainable debts, poor management of expenditure and inadequate mobilisation of revenue.
2. According to the foregoing analysis of fiscal performance, revenue mobilisation alone cannot be blamed for a fiscal crisis, even though it improves the fiscal health of an economy. Even if revenue mobilisation is high, the fiscal health of an economy is unlikely to reflect the increased revenue mobilisation if it is not supported by effective management of expenditure.
3. It was discovered that public spending had a greater impact on Kerala's fiscal deficit than revenue. However, raising money is still crucial because significant cuts to government spending are impossible to undertake without harming the welfare of the state.

As one of the explaining factors of poor Sales Tax/VAT, the study then examined the tax compliance behaviour of the traders and consumers based on economic, social/fiscal psychological factors. The outcome of the study shows the following results.

1. The tax compliance index constructed to determine factors of tax compliance depict tax morale as a strong factor in tax compliance.The belief in doing the ‘right thing’ greatly influenced the taxpayers.
2. The widespread belief is that the state's developmental efforts and services are out of proportion to the taxes that its citizens are required to pay. Therefore, this fiscal psychology may persuade people to stop paying taxes on time and in a consistent manner.
3. It was discovered that traders consistently paid the tax and are aware of its social and economic importance. Although traders believe there is a significant likelihood of detection, they do not believe the consequences to be serious. As a result, deterrence has little effect on how traders feel about paying taxes and complying with regulations.

7.2 Validation of Hypotheses

The inferences deduced from the analysis of public expenditure expose the burden shouldered by the state to meet its obligations of salaries, pensions and interests. The implementation of a wide range of subsidies and freebies has added to the woes.The chains laid on the state governments in fixing and implementing taxes further aggravate the fiscal crisis. This proves that committed expenditures and limited scope of revenue mobilisation directly influencing fiscal crisis. Hence the hypothesis that ‘committed expenditures and limited scope of revenue mobilisation directly influencing fiscal crisis’ is accepted.

An imminent danger that has revealed itself through the composition of expenditure and expenditure is the mounting debt.The unsustainability of debts poses the danger of a fiscal crisis paving way for a grave debt crisis. Tackling mounting debt and higher expenditures have been the hurdles for the state. The recent calamities that the economy faced have been a catalyst in aggravating the crisis. The state increasingly resorting to out-of-budget borrowings could also add to the mounting debt if the trend of revenue growth is not reversed.The practice of Kerala using borrowed money raises severe concerns. Since the expenses incurred using these loans do not produce revenue, the significant portion of the money being used to support revenue expenditure suggests that the repayment of these debts will have to be covered by funds from other sources.

Even though the share of revenue expenditure has decreased, which is a good indicator, it does not necessarily mean that the money is being used effectively. The same has been utilised to finance debt repayments in years where a smaller portion of revenue expenditures was supported with borrowed funds. Such a trend would only aggravate the crisis. The quality of revenue and expenditure thus affecting fiscal crisis validates the hypothesis. Hence the hypothesis that 'fiscal crisis is more associated with the pattern of revenue and expenditure rather than the volume of revenue and expenditure' is accepted.

The third hypothesis for the study of the 'attitude of the government, tax governance and tax compliance being associated'cannot be accepted. The tax compliance index of the factors depicts tax morale as a strong influence. However, it is believed that the state's tax administration system is unsatisfactory. The widespread belief is that the state's developmental efforts and services are out of proportion to the taxes its citizen's pay. Therefore, this fiscal psychology may persuade people to stop paying taxes on time and in a consistent manner. But the sense of justice and morality is considered to overpower such decisions. Hence the hypothesis is rejected.

Therefore, based on the inferences of the study, the following hypotheses,

1. Committed expenditures and limited scope for revenue mobilization directly influence fiscal crisis is accepted.
2. Fiscal crisis is more associated with the pattern of revenue and expenditure rather than the volume of revenue and expenditure is accepted.
3. Attitude of the government, tax governance and tax compliance are associated is rejected.

7.3 Limitations of the study

The limitations the study faced in its research were,

1. Non-availabilityof reliable dataprior to 1999-00 has forced the analysis to be contained to a period of 20 years. The changes in the format of reporting data by the Government of Kerala and the Reserve Bank of India have also led to confusionand lack of clarity.
2. The secondary data analysis was done on the values at current prices and not on constant prices. This would have marginal implicationson theresults of the analyses associated with the volume of expenditure and revenue. Deflators were not used because during the 20 years study period, base years changed differently with varyingmethodologies.
3. The primary data required as a part of the study was completed during the COVID period which hindered a detailed collection of data. This slightly affected the quality of data collected since long sessions with the respondents were not permitted.

7.4 Policy Implications

The policy implications to be made from the inferences are as follows.

1. Priority should be given to control non-plan revenue expenditure, reduce non-developmental revenue expenditure, and increase growth-enhancing expenditure for productive channels. The government should direct public spending in a way that fosters economic and financial stability while upholding equity in order to increase the quality of public spending.
2. Subsidies should be cut back by, and development spending should be raised by making better use of all available resources.
3. Revenue mobilisation is to be improved by focusing on tax evasion rather than on implementing new cesses and taxes.
4. Even while expenditure has tended to be more or less consistent over the years, there has been a significant decline in state finances. Thus, the growing fiscal crisis is a sign that state revenue, particularly tax revenue, is insufficient. This calls for the necessity of careful revenue mobilisation. The revenue mobilised has to directed to the productive and revenue generating sectors.

5. The common belief is that the state's efforts to promote growth and provide services are out of proportion to the taxes its citizens are required to pay. Therefore, this fiscal behaviour may persuade people to stop routinely and consistently paying their taxes. This calls for the government to make amends and improve the quality of public services rendered.

7.5 Scope for Further Research

1. In this study, tax compliance was examined with a limited sample frame because of the limitations mentioned above. There is wide scope for conducting a detailed study and it may throw new insights to tax compliance behaviour.

2. The history of Kerala state governance is of mixed political ideologies and strategies including local governance and planning over the years. There is scope for studies integrating fiscal crisis and these dimensions.

3. Studies covering interstate comparisons will help to identity the determinants of fiscal crisis and adopt best practices from fiscally healthy states.

7.6 Conclusion

The study primarily explores the State's budgetary issues and evaluates the past 30 years of financial data. The State's economic issues were mostly brought on by decreasing tax revenue, particularly in the Sales Tax/VAT regime. The State's expenditures on development activities and committed expenditures are consistently used as justification for the budgetary problems in the State. However, the poor level of revenue collection is still comparatively more important in understanding the fiscal issue.People are aware of the economic, social, and moral obligations associated with paying taxes, yet they continue to worry about whether the services provided, and developmental initiatives launched by the government live up to what the taxpayers would reasonably anticipate. The study makes the case that people's attitudes and behaviours towards taxes and compliance are significant factors that influence the state's ability to raise revenue.

ANNEXURE

ANNEXURE I

FISCAL PERFORMANCE INDEX

The UNDP publishes the Human Development Index using three primary variables, employing a composite index to measure efficiency is typical. Given that the composite index is multi-dimensional and encompasses a number of indicators, the relative distance approach required to generate it is crucial. This study uses ten indicators to calculate five major sub-indices from ten minor sub-indices reflecting different aspects of fiscal performance.

The indices used to form the Fiscal Performance Index are Deficit Index, Revenue Efficiency Index, Expenditure Quality Index, Debt Index and Debt Sustainability Index. Two minor sub-indices are used to map each major sub-index.

1. Deficit Index comprises of two minor indices; revenue deficit index which is revenue deficit as a proportion of Gross State Domestic Product and fiscal deficit index calculated as a proportion of fiscal deficit in Gross State Domestic Product.
2. Revenue Efficiency Index, calculated from two indicators, state own tax revenue index, own tax revenue as a proportion of GSDP and state own non-tax revenue index, own non-tax revenue as a proportion of GSDP.

   As the GSDP indicates a state's ability to collect taxes, these two indicators together show how effectively the states can do so.
3. Expenditure Quality Index is made up of developmental revenue expenditure index, development revenue expenditure as a proportion of revenue receipts and development capital expenditure index, developmental capital expenditure as a ratio of revenue receipts.

Resource allocation for development involves both the economic and social services sectors. Investing in social and physical infrastructure has substantial beneficial externalities. The quality of the expenses has, however, gotten less attention at the state level. The composition of spending and, consequently, its quality, are expressed by the Expenditure Quality Index. Knowing the development expenditures made in both the capital and revenue accounts from the overall revenue collections readily accessible to the states is crucial. A higher percentage of both ratios suggests that the government is better allocating resources to activities that promote development.

4. Debt Index comprises of Interest Payment to Revenue Receipts Index and Debt Ratio Index. The proportion of revenue used for interest payments on outstanding debt is shown by the interest payments to revenue ratio. It represents the state's position regarding debt servicing. Debt Ratio Index is calculated as the debt stock to gross domestic product ratio. This indicator indicates the state's level of debt.
5. Debt Sustainability Index is calculated using Debt Spread Index and Rate Spread Index. Debt spread index is calculated as the difference between the growth rate of GSDP and growth rate of debt. Rate spread index is constructed by calculating the difference of growth rate of GSDP and the average cost of borrowing.

Average Cost of Borrowing = Interest Payments / Average (Debt Stock (t), Debt Stock (t-

This average borrowing cost is calculated by dividing the interest costs for a given year by the average balance of debt outstanding for that year and the previous year. A higher spread indicates that the debt is more likely to be able to satisfy its interest and principal obligations. The state overcomes a debt trap because of the higher spread, which also means that it does not need to borrow money to cover its responsibility to pay interest.

Relative Distance approach is used to build the sub-indices from the evaluated fiscal factors. The level of each of the indicators is standardised in this technique to a number between 0 and 100. To evaluate the performance of the nations, the Human Development Index was calculated using the relative distance method. It is a technique based on several indicators. This method was used using a numerous indicator-based approach because the goal was to measure the state's budgetary performance. This approach is distinctive in that it may generate an index using both advantageous and disadvantageous characteristics. The Improvement Index is the name given to the index that is built for positive signs. The Deprivation Index is the index created by using unfavourable factors. Both indices will have values between 0 and 100.

$$\text{Deprivation Index (D)} = (\text{Max}(X) - X) / (\text{Max}(X) - \text{Min}(X)) \times 100$$

$$\text{Improvement Index (I)} = (Y - \text{Min}(Y)) / (\text{Max}(Y) - \text{Min}(Y)) \times 100$$

Where, X is the actual value of the parameter. Max (X) and Min (X) are the maximum and minimum value of the parameter. The range of the indices are from 0 to 100, with 0 depicting the worst performance and 100 indicating the best performance.

Accordingly, the study attempts to assess the fiscal performance of the state to prove the existence of a fiscal crisis. For this purpose, the range of values are being divided into quartiles; 0-25, 25-50, 50-75, 75-100. The quartiles respectively represent worst performance, bad performance, good performance and best performance.

ANNEXURE II
TAX COMPLIANCE INDEX
Dimensions and indicators used to construct Tax Compliance Index

Factors affecting tax compliance (Traders)

Dimensions		Indicators
Tax Morale	1	Payment of tax a responsibility
	2	Non-payment of indirect tax will affect the State's development
	3	Tax evasion a serious problem
	4	The tax authority would contact you on tax matters
	5	Because it is the law
	6	Concern that you will have to pay penalty charges for late payment of tax
	7	Your personal belief that you should do the 'right thing'
	8	Concern that you will be audited by Tax Authorities
Tax Knowledge	1	Awareness of tax affairs and tax entitlements
	2	Payment of tax affect Profit
	3	Payment of tax affect Customers
	4	Payment of tax affect Sales
	5	People evading tax are committing a criminal offence and could get a criminal record or go to prison
Subjective Norms	1	Tax payment and its formalities is a waste of time and a tedious task
	2	Deliberate tax evasion is increasing
	3	Culture of tax evasion exist among the traders
	4	Under reporting of sales/ over stating of purchases exists among traders
	5	Others are evading taxes hence why should I pay?
	6	Concern that someone might report you to the authorities
	7	Belief that other taxpayers are declaring and paying honestly
Attitude towards the behaviour	1	Consequences for people caught evading indirect tax if it is publicized Social Stigma
	2	Consequences for people caught evading indirect tax if it is publicized [Embarrassment]
	3	Tax evasion is ethical if everyone is doing it
Governance	1	A change in government will improve the tax collection
	2	Receive services from the government corresponding to the tax being paid
	3	The services rendered by the last governments are in accordance with the tax paid
	4	Corruption among the politicians affects your interest in paying taxes
Tax Administration	1	Corruption among tax officials affects your tax paying interest
	2	You are paying tax since the tax administration is good
	3	Factors that influence motivation to pay taxes [The taxation authorities treat all taxpayers fairly]
	4	Factors that influence motivation to pay taxes [Knowing that Tax

		Authorities have the power to receive information from 3rd parties regarding wages, interest, dividends]
	5	Factors that influence motivation to pay taxes [Tax Authorities will generally accept that your return or claim is correct]
	6	Factors that influence motivation to pay taxes [Tax Authorities makes it easy for you to pay your taxes]
Tax Structure	1	Tax papers and forms easy to complete
	2	Tax Authorities on-line forms are easy to complete.
	3	The tax system complicated
	4	Tax-paying is an expensive process
	5	Taxes are used to pay for public services
Economic Deterrence	1	Chance of being caught in the event of tax evasion
	2	Consequences for people caught evading indirect tax if it is publicized [Negative impact on job prospects]
	3	Consequences for people caught evading indirect tax if it is publicized [Negative impact on credit record]
	4	Consequences for people caught evading indirect tax if it is publicized [Negative impact on ability to start up in business]
	5	Consequences for people caught evading indirect tax if it is publicized [Financial penalties and problems]
	6	Consequences for people caught evading indirect tax if it is publicized [Criminal record]
	7	Consequences for people caught evading indirect tax if it is publicized [Prison sentence]
	8	Concern that you will be prosecuted
Compliance	1	Bills are given regularly
	2	Bills issued only when asked
	3	Bills given only for bulk purchases
	4	Bills contain name and details of the shop
	5	Original bill is given
	6	Bill amount recorded regularly

Tax Morale Traders

		Frequency
Payment of tax a responsibility[1]	Yes	98
	No	2
	Total	100
Non-payment of indirect tax will affect the State's development	Yes	73
	No	27
	Total	100
Tax evasion a serious problem[2]	Major Problem	4
	Moderate Problem	6
	Minor Problem	14

	Not a problem at all	76
	Total	100
The tax authority would contact you on tax matters[3]	Strong Influence	45
	Somewhat an Influence	28
	Little Influence	15
	No Influence at all	12
	Total	100
Because it is the law	Strong Influence	59
	Somewhat an Influence	25
	Little Influence	12
	No Influence at all	4
	Total	100
Concern that you will have to pay penalty charges for late payment of tax	Strong Influence	78
	Somewhat an Influence	13
	Little Influence	5
	No Influence at all	4
	Total	100
Your personal belief that you should do the 'right thing'	Strong Influence	82
	Somewhat an Influence	11
	Little Influence	3
	No Influence at all	4
	Total	100
Concern that you will be audited by Tax Authorities	Strong Influence	17
	Somewhat an Influence	45
	Little Influence	14
	No Influence at all	24
	Total	100

(Source: Primary Survey)

Notes:

1) Code of Scaling: 0 – No, 1 – Yes

$$\frac{0 \times F1 + 1 \times F2}{1 \times \text{Grand Total}}$$

Where, F1 = No, F2 = Yes

2) Code of Scaling: 0 – Not a problem at all, 1 – Minor Problem, 2 – Moderate Problem, 3 – Major Problem

$$\frac{0 \times F1 + 1 \times F2 + 2 \times F3 + 3 \times F4}{3 \times \text{Grand Total}}$$

Where, F1 = Not a Problem at all, F2 = Minor Problem, F3 = Moderate Problem, F4 = Major Problem

3) Code of Scaling: 0 – No Influence at all, 1 – Little Influence, 2 – Somewhat an Influence, 3 – Strong Influence

$$\frac{0 \times F1+1\times F2+2\times F3+3\times F4}{3\times \text{Grand Total}}$$

Where, F1 = No Influence at all, F2 = Little Influence, F3 = Somewhat an Influence, F4 = Strong Influence

Indicators	Value
Payment of tax a responsibility	0.98
Non-payment of indirect tax will affect the State's development	0.73
Tax evasion a serious problem	0.12
The tax authority would contact you on tax matters	0.68
Because it is the law	0.79
Concern that you will have to pay penalty charges for late payment of tax	0.88
Your personal belief that you should do the 'right thing'	0.90
Concern that you will be audited by Tax Authorities	0.51
Total	69.87

Total = Sum of all values / Total number of indicators

Tax Knowledge

		Frequency
Awareness of tax affairs and tax entitlements[4]	Very Well Informed	41
	Quite Well Informed	42
	Neither Informed nor Uninformed	11
	Not Well Informed	2
	Not at all Aware	4
	Total	100
Payment of tax affect Profit[5]	Yes	55
	No	45
	Total	100
Payment of tax affect Customers	Yes	26
	No	74
	Total	100
Payment of tax affect Sales	Yes	47
	No	53

	Total	100
Tax evasion is a criminal offense and leads to imprisonment	Yes	69
	No	31
	Total	100

(Source: Primary Survey)

Notes:

4) Code of Scaling: 0 – Neither informed Nor Uninformed, 1 – Not at all informed, 2 – Not Well Informed, 3 – Quite Well Informed, 4 – Very Well Informed

$$\frac{0 \times F1 + 1 \times F2 + 2 \times F3 + 3 \times F4 + 4 \times F5}{4 \times \text{Grand Total}}$$

Where, F1 = Neither Informed nor Uninformed, F2 = Not at all Informed, F3 = Not Well Informed, F4 = Quite Well Informed, F5 = Very Well Informed

5) Code of Scaling: 0 – No, 1 – Yes

$$\frac{0 \times F1 + 1 \times F2}{1 \times \text{Grand Total}}$$

Where, F1 = No, F2 = Yes

Indicators	Value
Awareness of tax affairs and tax entitlements	0.74
Payment of tax affect Profit	0.55
Payment of tax affect Customers	0.26
Payment of tax affect Sales	0.47
Tax evasion is a criminal offense and leads to imprisonment	0.69
Total	54.2

Total = Sum of all values / Total number of indicators

Subjective Norms

		Frequency
Tax payment and its formalities is a waste of time and a tedious task[6]	Strongly Agree	20
	Agree	17
	Neither agree nor disagree	28
	Disagree	12
	Strongly Disagree	23
	Total	100
Deliberate tax evasion is increasing[7]	Yes	57
	No	31
	Do not Know	12

	Total	100
Culture of tax evasion exist among the traders[8]	Yes	62
	No	28
	Refuse to answer	12
	Total	100
Under reporting of sales/ over stating of purchases exists among traders	Yes	49
	No	31
	Refuse to answer	20
	Total	100
Others are evading taxes hence why should I pay?[9]	Yes	41
	No	59
	Total	100
Concern that someone might report you to the authorities[10]	Strong Influence	51
	Somewhat an Influence	19
	Little Influence	2
	No Influence at all	25
	Total	100
Belief that other taxpayers are declaring and paying honestly	Strong Influence	73
	Somewhat an Influence	7
	Little Influence	6
	No Influence at all	14
	Total	100

(Source: Primary Survey)

Note:

6) Code of Scaling: 0 – Neither Agree nor Disagree, 1 – Strongly Disagree, 2 – Disagree, 3 – Agree, 4 – Strongly Agree

$$\frac{0 \times F1 + 1 \times F2 + 2 \times F3 + 3 \times F4 + 4 \times F5}{4 \times \text{Grand Total}}$$

Where, F1 = Neither Agree nor Disagree, F2 = Strongly Disagree, F3 = Disagree, F4 = Agree, F5 = Strongly Agree

7) Code of Scaling: 0 – Do Not Know, 1 – No, 2 – Yes

$$\frac{0 \times F1 + 1 \times F2 + 2 \times F3}{2 \times \text{Grand Total}}$$

Where, F1 = Do Not Know, F2 = No, F3 = Yes

8) Code of Scaling: 0 – Refuse to Answer, 1 – No, 2 – Yes

$$\frac{0 \times F1 + 1 \times F2 + 2 \times F3}{2 \times \text{Grand Total}}$$

Where, F1 = Refuse to Answer, F2 = No, F3 = Yes

9) Code of Scaling: 0 – No, 1 – Yes

$$\frac{0 \times F1 + 1 \times F2}{1 \times \text{Grand Total}}$$

Where, F1 = No, F2 = Yes

10) Code of Scaling: 0 – No Influence at all, 1 – Little Influence, 2 – Somewhat an Influence, 3 – Strong Influence

$$\frac{0 \times F1 + 1 \times F2 + 2 \times F3 + 3 \times F4}{3 \times \text{Grand Total}}$$

Where, F1 = No Influence at all, F2 = Little Influence, F3 = Somewhat an Influence, F4 = Strong Influence

Indicators	Value
Tax payment and its formalities is a waste of time and a tedious task	0.44
Deliberate tax evasion is increasing	0.72
Culture of tax evasion exist among the traders	0.76
Under reporting of sales/ over stating of purchases exists among traders	0.64
Others are evading taxes hence why should I pay?	0.41
Concern that someone might report you to the authorities	0.65
Belief that other taxpayers are declaring and paying honestly	0.79
Total	63

Total = Sum of all values/ Total number of indicators

Attitude towards behaviour

		Frequency
Consequences for people caught evading indirect tax if it is publicized Social Stigma[11]	Yes	57
	No	43
	Total	100
Consequences for people caught evading indirect tax if it is publicized [Embarrassment]	Yes	67
	No	33
	Total	100
Tax evasion is ethical if everyone is doing it	Yes	37
	No	63
	Total	100

Source: Primary Survey

Note:

11) Code of Scaling: 0 – No, 1 – Yes

$$\frac{0 \times F1 + 1 \times F2}{1 \times \text{Grand Total}}$$

Where, F1 = No, F2 = Yes

Indicators	Values
Consequences for people caught evading indirect tax if it is publicized Social Stigma	0.57
Consequences for people caught evading indirect tax if it is publicized [Embarrassment]	0.67
Tax evasion is ethical if everyone is doing it	0.37
Total	53.67

Total = Sum of all values/ Total number of indicators

Governance

		Frequency
A change in government will improve the tax collection[12]	Yes	38
	No	62
	Total	100
Receive services from the government corresponding to the tax being paid[13]	Strongly Agree	0
	Agree	24
	Neither Agree nor Disagree	23
	Disagree	33
	Strongly Disagree	20
	Total	100
The services rendered by the last governments are in accordance with the tax paid	Strongly Agree	9
	Agree	21
	Neither Agree nor Disagree	12
	Disagree	26
	Strongly Disagree	32
	Total	100
Corruption among the politicians affects your interest in paying taxes	Strongly Agree	55
	Agree	15
	Neither Agree nor Disagree	9
	Disagree	14
	Strongly Disagree	7
	Total	100

Source: Primary Survey

Note:

12) Code of Scaling: 0 – No, 1 – Yes

$$\frac{0 \times F1+1\times F2}{1\times \text{Grand Total}}$$

Where, F1 = No, F2 = Yes

13) Code of Scaling: 0 – Neither Agree nor Disagree, 1 – Strongly Disagree, 2 – Disagree, 3 – Agree, 4 – Strongly Agree

$$\frac{0 \times F1+1\times F2+2\times F3+3\times F4+4\times F5}{4\times \text{Grand Total}}$$

Where, F1 = Neither Agree nor Disagree, F2 = Strongly Disagree, F3 = Disagree, F4 = Agree, F5 = Strongly Agree

Indicators	Values
A change in government will improve the tax collection	0.38
Receive services from the government corresponding to the tax being paid	0.39
The services rendered by the last governments are in accordance with the tax paid	0.45
Corruption among the politicians affects your interest in paying taxes	0.75
Total	49.25

Total = Sum of all values/ Total number of indicators

Tax Administration

		Frequency
Corruption among tax officials affects your tax paying interest[14]	Strongly Agree	34
	Agree	21
	Neither Agree nor Disagree	15
	Disagree	26
	Strongly Disagree	4
You are paying tax since the tax administration is good	Strongly Agree	16
	Agree	13
	Neither Agree nor Disagree	39
	Disagree	23
	Strongly Disagree	9

The taxation authorities treat all taxpayers fairly[15]	Strong Influence	34
	Somewhat an Influence	22
	Little Influence	19
	No Influence at all	25
Tax Authorities have the power to receive information from 3rd parties your income	Strong Influence	31
	Somewhat an Influence	31
	Little Influence	28
	No Influence at all	10
Tax Authorities will generally accept that your return or claim is correct	Strong Influence	36
	Somewhat an Influence	20
	Little Influence	17
	No Influence at all	27
Tax Authorities makes it easy for you to pay your taxes	Strong Influence	27
	Somewhat an Influence	20
	Little Influence	35
	No Influence at all	18

Source: Primary Survey

Note:

14) Code of Scaling: 0 – Neither Agree nor Disagree, 1 – Strongly Disagree, 2 – Disagree, 3 – Agree, 4 – Strongly Agree

$$\frac{0 \times F1 + 1 \times F2 + 2 \times F3 + 3 \times F4 + 4 \times F5}{4 \times \text{Grand Total}}$$

Where, F1 = Neither Agree nor Disagree, F2 = Strongly Disagree, F3 = Disagree, F4 = Agree, F5 = Strongly Agree

15) Code of Scaling: 0 – No Influence at all, 1 – Little Influence, 2 – Somewhat an Influence, 3 – Strong Influence

$$\frac{0 \times F1 + 1 \times F2 + 2 \times F3 + 3 \times F4}{3 \times \text{Grand Total}}$$

Where, F1 = No Influence at all, F2 = Little Influence, F3 = Somewhat an Influence, F4 = Strong Influence

Indicators	Values
Corruption among tax officials affects your tax paying interest	0.63
You are paying tax since the tax administration is good	0.39
The taxation authorities treat all taxpayers fairly	0.55
Tax Authorities have the power to receive information from 3rd parties your income	0.61
Tax Authorities will generally accept that your return or claim is correct	0.55
Tax Authorities makes it easy for you to pay your taxes	0.52
Total	54.16

Total = Sum of all values/ Total number of indicators

Tax Structure

		Frequency
Tax papers and forms easy to complete[16]	Yes	48
	No	32
	Do not know	20
Tax Authorities on-line forms are easy to complete.	Yes	50
	No	13
	Do not Know	37
The tax system complicated[17]	Strongly Agree	54
	Agree	28
	Neither Agree nor Disagree	9
	Disagree	4
	Strongly Disagree	5
Tax-paying is an expensive process	Strongly Agree	20
	Agree	12
	Neither Agree nor Disagree	38
	Disagree	22
	Strongly Disagree	8
Taxes are used to pay for public services[18]	Strong Influence	85
	Somewhat an Influence	7
	Little Influence	8
	No Influence at all	0

Source: Primary Survey

Note:

16) Code of Scaling: 0 – Do Not Know, 1 – No, 2 – Yes

$$\frac{0 \times F1 + 1 \times F2 + 2 \times F3}{2 \times \text{Grand Total}}$$

Where, F1 = Do Not Know, F2 = No, F3 = Yes

17) Code of Scaling: 0 – Neither Agree nor Disagree, 1 – Strongly Disagree, 2 – Disagree, 3 – Agree, 4 – Strongly Agree

$$\frac{0 \times F1 + 1 \times F2 + 2 \times F3 + 3 \times F4 + 4 \times F5}{4 \times \text{Grand Total}}$$

Where, F1 = Neither Agree nor Disagree, F2 = Strongly Disagree, F3 = Disagree, F4 = Agree, F5 = Strongly Agree

18) Code of Scaling: 0 – No Influence at all, 1 – Little Influence, 2 – Somewhat an Influence, 3 – Strong Influence

$$\frac{0 \times F1 + 1 \times F2 + 2 \times F3 + 3 \times F4}{3 \times \text{Grand Total}}$$

Where, F1 = No Influence at all, F2 = Little Influence, F3 = Somewhat an Influence, F4 = Strong Influence

Indicators	Values
Tax papers and forms easy to complete	0.64
Tax Authorities on-line forms are easy to complete.	0.56
The tax system complicated	0.78
Tax-paying is an expensive process	0.42
Taxes are used to pay for public services	0.92
Total	66.4

Total = Sum of all values/ Total number of indicators

Economic Deterrence

		Frequency
Consequences for people caught evading indirect tax if it is publicized Negative impact on job prospects[19]	Yes	34
	No	66
Consequences for people caught evading indirect tax if it is publicized Negative impact on credit record	Yes	42
	No	58
Consequences for people caught evading indirect tax if it is publicized [Negative impact on ability to start up in business]	Yes	42
	No	58
Consequences for people caught evading indirect tax if it is publicized [Financial penalties and problems]	Yes	97
	No	3
Consequences for people caught evading indirect tax if it is publicized [Criminal record]	Yes	36
	No	64
Consequences for people caught evading indirect tax if it is publicized [Prison sentence]	Yes	49
	No	51
Concern that you will be prosecuted	Strong Influence	83
	Somewhat an Influence	7
	Little Influence	8
	No Influence at all	2
	Total	100
Chance of being caught in the event of tax evasion	Very Likely	50
	Quite Likely	9
	Not Likely	26
	Not at all Likely	15
	Total	100

Source: Primary Survey

Note:

19) Code of Scaling: 0 – No, 1 – Yes

$$\frac{0 \times F1 + 1 \times F2}{1 \times \text{Grand Total}}$$

Where, F1 = No, F2 = Yes

Indicators	Values
Consequences for people caught evading indirect tax if it is publicized Negative impact on job prospects	0.34
Consequences for people caught evading indirect tax if it is publicized Negative impact on credit record	0.42
Consequences for people caught evading indirect tax if it is publicized [Negative impact on ability to start up in business]	0.42
Consequences for people caught evading indirect tax if it is publicized [Financial penalties and problems]	0.97
Consequences for people caught evading indirect tax if it is publicized [Criminal record]	0.34
Consequences for people caught evading indirect tax if it is publicized [Prison sentence]	0.49
Concern that you will be prosecuted	0.90
Chance of being caught in the event of tax evasion	0.64
Total	56.5

Total = Sum of all values/ Total number of indicators

Compliance Factors

		Frequency
Bills are given regularly[20]	Yes	72
	No	28
	Total	100
Bills issued only when asked	Yes	43
	No	57
	Total	100
Bills given only for bulk purchases	Yes	47
	No	53
	Total	100
Bills contain name and details of the shop	Yes	78
	No	22
	Total	100
Original bill is given	Yes	71
	No	29
	Total	100
Bill amount recorded regularly	Yes	77
	No	23
	Total	100

Source: Primary Source

20) Code of Scaling: 0 – No, 1 – Yes

$$\frac{0 \times F1 + 1 \times F2}{1 \times \text{Grand Total}}$$

Where, F1 = No, F2 = Yes

Indicators	Values
Bills are given regularly	0.72
Bills issued only when asked	0.43
Bills given only for bulk purchases	0.47
Bills contain name and details of the shop	0.78
Original bill is given	0.71
Bill amount recorded regularly	0.77
Total	64.67

Total = Sum of all values/ Total number of indicators

Total Compliance

Variables	Traders
Tax Morale	69.87
Tax Knowledge	54.2
Subjective Norms	63
Attitude towards behaviour	53.67
Governance	49.25
Tax administration	54.16
Tax System/Structure	66.4
Economic Deterrence	56.5
Compliance Factors	64.67

Composite Index

Tax Morale	0.16
Tax Knowledge	0.10
Subjective Norms	0.14
Attitude towards behaviour	0.06
Governance	0.08
Tax administration	0.12
Tax System/Structure	0.10
Economic Deterrence	0.15
Compliance Factors	0.12
Total	1

Weights = No. of variables/ Total no. of indicators (52)

Weighted index for each dimension

After assigning the weights, the simple indices are weighed, and the index values are computed as shown in table below.

Variables	
Tax Morale	11.0
Tax Knowledge	5.3
Subjective Norms	8.6
Attitude towards behaviour	3.2
Governance	3.9
Tax administration	6.4
Tax System/Structure	6.5
Economic Deterrence	8.7
Compliance Factors	7.6
Total	6.8

Factors affecting tax compliance (Consumers)

Variables		Indicators
Tax Morale	1	Non-payment of indirect tax will affect the State's development
	2	Tax evasion a serious problem
	3	The tax authority would contact you on tax matters
	4	Because it is the law
	5	Your personal belief that you should do the 'right thing'
	6	Concern that you will have to pay penalty charges for late payment of tax
Tax Knowledge	1	Awareness of tax affairs and tax entitlements
	2	Paying tax even without bill
	3	Paying tax along with price
Subjective Norms	1	Deliberate tax evasion is increasing
	2	Concern that someone might report you to the authorities
	3	Belief that other taxpayers are declaring and paying honestly
	4	Traders will pay tax without bill
	5	Supporting Tax Evasion Without Bill
Attitude towards Behaviour	1	Legally avoid paying taxes by using loopholes in laws is accepted
	2	All traders do not report their income
	3	Harassment when asked bills
Governance	1	A change in government will improve the tax collection
	2	Receive services from the government corresponding to the tax being paid
	3	A change in government will improve the tax collection
	4	Receive services from the government corresponding to the tax being paid
Tax Administration	1	The taxation authorities treat all taxpayers fairly
	2	Tax Authorities have the power to receive information from 3rd parties your income
Tax Structure	1	Taxes are used to pay for public services
	2	Rate of Tax
Economic	1	Concern that you will be prosecuted

Deterrence	2	Penalty for Payment
Compliance Factors	1	Ask bills on purchase
	2	Traders give bills voluntarily
	3	Traders give bills only when asked
	4	Bills given only for bulk purchases
	5	Bills contain shop Name and Details

Tax Morale Consumers

		Frequency
Non-payment of indirect tax will affect the State's development[1]	Yes	210
	No	40
	Maybe	50
Tax evasion a serious problem[2]	Strongly Agree	96
	Agree	76
	Neither Agree nor Disagree	49
	Disagree	51
	Strongly Disagree	28
The tax authority would contact you on tax matters[3]	Strong Influence	103
	Somewhat an Influence	61
	Little Influence	63
	No Influence at all	73
Because it is the law	Strong Influence	161
	Somewhat an Influence	58
	Little Influence	44
	No Influence at all	37
Your personal belief that you should do the 'right thing'	Strong Influence	159
	Somewhat an Influence	57
	Little Influence	46
	No Influence at all	38
Concern that you will have to pay penalty charges for late payment of tax	Strong Influence	107
	Somewhat an Influence	51
	Little Influence	75
	No Influence at all	67

(Source: Primary Survey)

Notes:

3) Code of Scaling: 0 – Maybe, 1 – No, 2 – Yes

$$\frac{0 \times F1+1\times F2+2\times F3}{2\times \text{Grand Total}}$$

Where, F1 = Maybe, F2 = No, F3 = Yes

4) Code of Scaling: 0 – Neither Agree nor Disagree, 1 – Strongly Disagree, 2 – Disagree, 3 – Agree, 4 – Strongly Agree

$$\frac{0 \times F1+1\times F2+2\times F3+3\times F4+4\times F5}{4\times \text{Grand Total}}$$

Where, F1 = Neither Agree nor Disagree, F2 = Strongly Disagree, F3 = Disagree, F4 = Agree, F5 = Strongly Agree

3) Code of Scaling: 0 – No Influence at all, 1 – Little Influence, 2 – Somewhat an Influence, 3 – Strong Influence

$$\frac{0 \times F1+1\times F2+2\times F3+3\times F4}{3\times \text{Grand Total}}$$

Where, F1 = No Influence at all, F2 = Little Influence, F3 = Somewhat an Influence, F4 = Strong Influence

Indicators	Value
Non-payment of indirect tax will affect the State's development	0.76
Tax evasion a serious problem	0.62
The tax authority would contact you on tax matters	0.54
Because it is the law	0.90
Concern that you will have to pay penalty charges for late payment of tax	0.55
Your personal belief that you should do the 'right thing'	0.70
Total	67.83

Total = Sum of all values/ Total number of indicators

Tax Knowledge

		Frequency
Awareness of tax affairs and tax entitlements[4]	Yes	114
	No	15
	Little	171
Deliberate tax evasion is increasing[5]	Strongly Agree	79
	Agree	78
	Neither Agree nor Disagree	61
	Disagree	46
	Strongly Disagree	36
Paying tax even without bill[6]	Yes	253
	No	38
	Maybe	9
Paying tax along with price[7]	Yes	264
	No	36

(Source: Primary Survey)

Notes:

4) Code of Scaling: 0 – Little, 1 – No, 2 – Yes

$$\frac{0 \times F1 + 1 \times F2 + 2 \times F3}{2 \times \text{Grand Total}}$$

Where, F1 = Little, F2 = No, F3 = Yes

5) Code of Scaling: 0 – Neither Agree nor Disagree, 1 – Strongly Disagree, 2 – Disagree, 3 – Agree, 4 – Strongly Agree

$$\frac{0 \times F1 + 1 \times F2 + 2 \times F3 + 3 \times F4 + 4 \times F5}{4 \times \text{Grand Total}}$$

Where, F1 = Neither Agree nor Disagree, F2 = Strongly Disagree, F3 = Disagree, F4 = Agree, F5 = Strongly Agree

6) Code of Scaling: 0 – Maybe, 1 – No, 2 – Yes

$$\frac{0 \times F1 + 1 \times F2 + 2 \times F3}{2 \times \text{Grand Total}}$$

Where, F1 = Maybe, F2 = No, F3 = Yes

7) Code of Scaling: 0 – No, 1 – Yes

$$\frac{0 \times F1 + 1 \times F2}{1 \times \text{Grand Total}}$$

Where, F1 = No, F2 = Yes

Indicators	Value
Awareness of tax affairs and tax entitlements	0.24
Paying tax even without bill	0.90
Paying tax along with price	0.88
Total	67.33

Total = Sum of all values/ Total number of indicators

Subjective Norms

		Frequency
Deliberate tax evasion is increasing[8]	Strongly Agree	79
	Agree	78
	Neither Agree nor Disagree	61
	Disagree	46
	Strongly Disagree	36
Concern that someone might report you to the authorities[9]	Strong Influence	96
	Somewhat an Influence	65
	Little Influence	78
	No Influence at all	61
Belief that other taxpayers are declaring and paying honestly	Strong Influence	92
	Somewhat an Influence	63
	Little Influence	70
	No Influence at all	75
Traders will pay tax	Yes	40

without bill[10]	No	246
	Do not Know	14
Supporting Tax Evasion Without Bill[11]	Yes	165
	No	88
	Maybe	47

Source: Primary Survey

Note:

8) Code of Scaling: 0 – Neither Agree nor Disagree, 1 – Strongly Disagree, 2 – Disagree, 3 – Agree, 4 – Strongly Agree

$$\frac{0 \times F1+1\times F2+2\times F3+3\times F4+4\times F5}{4\times \text{Grand Total}}$$

Where, F1 = Neither Agree nor Disagree, F2 = Strongly Disagree, F3 = Disagree, F4 = Agree, F5 = Strongly Agree

9) Code of Scaling: 0 – No Influence at all, 1 – Little Influence, 2 – Somewhat an Influence, 3 – Strong Influence

$$\frac{0 \times F1+1\times F2+2\times F3+3\times F4}{3\times \text{Grand Total}}$$

Where, F1 = No Influence at all, F2 = Little Influence, F3 = Somewhat an Influence, F4 = Strong Influence

10) Code of Scaling: 0 – Do not know, 1 – No, 2 – Yes

$$\frac{0 \times F1+1\times F2+2\times F3}{2\times \text{Grand Total}}$$

Where, F1 = Do not know, F2 = No, F3 = Yes

11) Code of Scaling: 0 – Maybe, 1 – No, 2 – Yes

$$\frac{0 \times F1+1\times F2+2\times F3}{2\times \text{Grand Total}}$$

Where, F1 = Maybe, F2 = No, F3 = Yes

Indicators	Value
Deliberate tax evasion is increasing	0.56
Concern that someone might report you to the authorities	0.55
Belief that other taxpayers are declaring and paying honestly	0.61
Traders will pay tax without bill	0.54
Supporting Tax Evasion Without Bill	0.69
Total	59

Total = Sum of all values/ Total number of indicators

Attitude towards behaviour

		Frequency
Legally avoid paying taxes by using loopholes in laws is accepted[12]	Strongly Agree	93
	Agree	73
	Neither Agree nor Disagree	48
	Disagree	43
	Strongly Disagree	43
All traders do not report their full income	Strongly Agree	91
	Agree	76
	Neither Agree nor Disagree	69
	Disagree	33
	Strongly Disagree	31
Harassment when asked for bills[13]	Yes	9
	No	291

Source: Primary Survey

Note:

12) Code of Scaling: 0 – Neither Agree nor Disagree, 1 – Strongly Disagree, 2 – Disagree, 3 – Agree, 4 – Strongly Agree

$$\frac{0 \times F1+1\times F2+2\times F3+3\times F4+4\times F5}{4\times \text{Grand Total}}$$

Where, F1 = Neither Agree nor Disagree, F2 = Strongly Disagree, F3 = Disagree, F4 = Agree, F5 = Strongly Agree

13) Code of Scaling: 0 – No, 1 – Yes

$$\frac{0 \times F1 + 1 \times F2}{1 \times \text{Grand Total}}$$

Where, F1 = No, F2 = Yes

Indicators	Values
Legally avoid paying taxes by using loopholes in laws is accepted	0.6
All traders do not report their income	0.57
Harassment when asked for bill	0.09
Total	21.3

Total = Sum of all values/ Total number of indicators

Governance

		Frequency
Change in the government can improve the tax collection[14]	Strongly Agree	20
	Agree	39
	Neither Agree nor Disagree	41
	Disagree	136
	Strongly Disagree	64
Receive services from the government in accordance with the tax you pay	Strongly Agree	10
	Agree	36
	Neither Agree nor Disagree	46
	Disagree	118
	Strongly Disagree	90

Source: Primary Survey

Note:

14) Code of Scaling: 0 – Neither Agree nor Disagree, 1 – Strongly Disagree, 2 – Disagree, 3 – Agree, 4 – Strongly Agree

$$\frac{0 \times F1+1\times F2+2\times F3+3\times F4+4\times F5}{4\times \text{Grand Total}}$$

Where, F1 = Neither Agree nor Disagree, F2 = Strongly Disagree, F3 = Disagree, F4 = Agree, F5 = Strongly Agree

Indicators	Values
A change in government will improve the tax collection	0.44
Receive services from the government corresponding to the tax being paid	0.39
Total	41.5

Total = Sum of all values/ Total number of indicators

Tax Administration

Tax Administration is strict[15]	Yes	99
	No	122
	Do not know	79
The tax administration can detect those not paying the right amount of tax[16]	Strongly Agree	62
	Agree	63
	Neither Agree nor Disagree	76
	Disagree	49
	Strongly Disagree	50
The taxation authorities treat all taxpayers fairly[17]	Strong Influence	63
	Somewhat an Influence	62
	Little Influence	85
	No Influence at all	90
Tax Authorities have the power to receive information from 3rd parties your income	Strong Influence	75
	Somewhat an Influence	71
	Little Influence	95
	No Influence at all	59

Source: Primary Survey

Note:

15) Code of Scaling: 0 – Do not know, 1 – No, 2 – Yes

$$\frac{0 \times F1+1\times F2+2\times F3}{2\times \text{Grand Total}}$$

Where, F1 = Do not know, F2 = No, F3 = Yes

16) Code of Scaling: 0 – Neither Agree nor Disagree, 1 – Strongly Disagree, 2 – Disagree, 3 – Agree, 4 – Strongly Agree

$$\frac{0 \times F1+1\times F2+2\times F3+3\times F4+4\times F5}{4\times \text{Grand Total}}$$

Where, F1 = Neither Agree nor Disagree, F2 = Strongly Disagree, F3 = Disagree, F4 = Agree, F5 = Strongly Agree

17) Code of Scaling: 0 – No Influence at all, 1 – Little Influence, 2 – Somewhat an Influence, 3 – Strong Influence

$$\frac{0 \times F1+1\times F2+2\times F3+3\times F4}{3\times \text{Grand Total}}$$

Where, F1 = No Influence at all, F2 = Little Influence, F3 = Somewhat an Influence, F4 = Strong Influence

Indicators	Values
Tax Administration is strict	0.53
Tax administration able to detect non-payers	0.48
The taxation authorities treat all taxpayers fairly	0.44
Tax Authorities have the power to receive information from 3rd parties your income	0.51
Total	49

Total = Sum of all values/ Total number of indicators

Tax Structure

		Frequency
Taxes are used to pay for public services[18]	Strong Influence	90
	Somewhat an Influence	65
	Little Influence	74

	No Influence at all	71
Rate of Tax	Strong Influence	139
	Somewhat an Influence	75
	Little Influence	37
	No Influence at all	49

Source: Primary Survey

Note:

18) Code of Scaling: 0 – No Influence at all, 1 – Little Influence, 2 – Somewhat an Influence, 3 – Strong Influence

$$\frac{0 \times F1+1\times F2+2\times F3+3\times F4}{3\times \text{Grand Total}}$$

Where, F1 = No Influence at all, F2 = Little Influence, F3 = Somewhat an Influence, F4 = Strong Influence

Indicators	Values
Taxes are used to pay for public services	0.52
Rate of Tax	0.67
Total	59.5

Total = Sum of all values/ Total number of indicators

Economic Deterrence

		Frequency
Penalty for non-payment[19]	Strong Influence	107
	Somewhat an Influence	51
	Little Influence	75
	No Influence at all	67
Concern that you will be prosecuted	Strong Influence	76
	Somewhat an Influence	48

	Little Influence	105
	No Influence at all	71

Source: Primary Survey

Note:

19) Code of Scaling: 0 – No Influence at all, 1 – Little Influence, 2 – Somewhat an Influence, 3 – Strong Influence

$$\frac{0 \times F1 + 1 \times F2 + 2 \times F3 + 3 \times F4}{3 \times \text{Grand Total}}$$

Where, F1 = No Influence at all, F2 = Little Influence, F3 = Somewhat an Influence, F4 = Strong Influence

Indicators	Values
Penalty for Payment	0.55
Concern that you will be prosecuted	0.47
Total	51

Total = Sum of all values/ Total number of indicators

Compliance Factors

		Frequency
Ask bills on purchase[20]	Yes	193
	No	58
	Sometimes	49
Traders give bills voluntarily[21]	Yes	167
	No	36
	Sometimes	68
	Only a few	29
Traders give bills only when asked[22]	Yes	135

	No	165
Bills given only for bulk purchases	Yes	70
	No	170
	Sometimes	60
Bills contain all details[23]	Yes	224
	No	24
	Maybe	52

Source: Primary Survey

20) Code of Scaling: 0 – Sometimes, 1 – No, 2 – Yes

$$\frac{0 \times F1+1\times F2+2\times F3}{2\times \text{Grand Total}}$$

Where, F1 = Sometimes, F2 = No, F3 = Yes

21) Code of Scaling: 0 – Only a few, 1 – Sometimes, 2 – No, 3 – Yes

$$\frac{0 \times F1+1\times F2+2\times F3+3\times F4}{3\times \text{Grand Total}}$$

Where, F1 = Only a few, F2 = Sometimes, F3 = No, F4 = Yes

22) Code of Scaling: 0 – No, 1 – Yes

$$\frac{0 \times F1+1\times F2}{1\times \text{Grand Total}}$$

Where, F1 = No, F2 = Yes

23) Code of Scaling: 0 – Maybe, 1 – No, 2 – Yes

$$\frac{0 \times F1+1\times F2+2\times F3}{2\times \text{Grand Total}}$$

Where, F1 = Maybe, F2 = No, F3 = No

Indicators	Values
Ask bills on purchase	0.74
Traders give bills voluntarily	0.71
Traders give bills only when asked	0.45
Bills given only for bulk purchases	0.51
Bills contain shop Name and Details	0.78
Total	63.8

Total = Sum of all values/ Total number of indicators

TOTAL COMPLIANCE

Variables	Consumers
Tax Morale	67.83
Tax Knowledge	67.33
Subjective Norms	59
Attitude towards behaviour	21.3
Governance	41.5
Tax administration	49
Tax System/Structure	59.5
Economic Deterrence	51
Compliance Factors	63.8

Composite Index (Fergusson Index)

Computed weights for each dimension

Variables	Consumers
Tax Morale	0.18
Tax Knowledge	0.12
Subjective Norms	0.15
Attitude towards behaviour	0.09

Governance	0.06
Tax administration	0.12
Tax System/Structure	0.06
Economic Deterrence	0.06
Compliance Factors	0.15
Total	1

(Source: Primary Survey)

Used Formula = No. of variables/ Total no. of variables (33)

APPENDIX

APPENDIX I

Fiscal Crisis and Revenue Mobilization in Kerala: A Study of Tax Compliance Behaviour

Questionnaire for Traders and Businessmen

1) Name: Year:
2) Type of Shop: Large Small Medium Micro
3) Annual turnover at present.
4) Nature of activity.
5) Total number of units.
6) What are the tax rates followed?
7) What is the GST rate of your product/service?
8) Registration Number:

Sl No.	Question	Sales Tax		VAT		GST	
		Yes	No	Yes	No	Yes	No
9)	Do you file your tax returns regularly?						
10)	Do you think tax is a major source of income for the govt?						
11)	Do you keep a proper day to day sales account?						
12)	Have you ever completed a tax return form?						

13) Why do you pay taxes?
    1) It is an obligation
    2) To avoid punishment

3) To get facilities

14) Do you consider payment of tax your responsibility?

1) Yes
2) No

15) What do you think the income from indirect tax is used for?

1) Health Services
2) Education
3) Law and Order
4) Roads and Transportation
5) Social welfare (like pensions etc)
6) Others, specify

16) Do you think not paying the indirect tax will affect the state's Tax Authorities and development?

1) Yes
2) No
3) Don't know

Government related

17) Are you aware of any fiscal crisis in the State?

1) Yes
2) No

18) Do you think the fiscal crisis in Kerala is due to the problems in tax collection?

1) Yes
2) No
3) Don't know

19) If yes, what would be the problem?

20) Do you think a change in government will improve the tax collection?

1) Yes
2) No
3) Not sure

21) Do you feel that you receive services from the government corresponding to the tax being paid?

1) Strongly agree
2) Agree
3) Neither agree nor disagree
4) Disagree
5) Strongly disagree

22) Do you think the services rendered by the last 5-year government are equal to your tax payment?

1) Strongly agree
2) Agree
3) Neither agree nor disagree
4) Disagree
5) Strongly disagree

Billing

23) What type of bill is issued to the customers?

1) Electronic bill
2) Written (book of receipts)

Sl. No.	Question	Yes	No
24)	Do you give bills to the consumers regularly?		
25)	Are bills issued only when asked?		
26)	Do the consumers ask for the bills?		
27)	Are bills given only for bulk purchases?		
28)	Does the bill contain name and details of the shop?		
29)	Do you give the original bill?		
30)	Do you record the bill amount regularly? If yes, how often?		
31)	Do you think the customer sending a photo of the bill to the tax department will help in increasing the tax collection?		

32) Does payment of tax affect your

Sl No	Question	Response

a)	Profit	
b)	Customers	
c)	Sales	

Tax paying Interest

Sl No.	Question	Strongly Agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
33)	Do you consider the tax system complicated?					
34)	Does corruption among the politicians affect your interest in paying taxes?					
35)	Does corruption among tax officials affect your tax paying interest?					
36)	Do you find tax payment and its formalities a waste of time and a tedious task?					
37)	Tax-paying is an expensive process					
38)	Are you paying tax since the tax administration is good?					

Tax Evasion

39) Do you feel tax evasion is a serious issue?

(1) A major problem

(2) A moderate problem

(3) A minor problem

(4) Not a problem at all

(5) Don't know

40) In your view, how widespread is the problem?

(1)Very widespread

(2) Fairly widespread

(3) Not very widespread

(4) Not widespread at all

(5) Don't know

41) How likely would do you think is the chance of being caught in the event of tax evasion?

(1) Very likely

(2) Quite likely

(3) Not likely

(4) Not at all likely

(5) Don't know

42) Do you think deliberate tax evasion is increasing?

1) Yes

2) No

3) Don’t know

43) Does the culture of tax evasion exist among the traders?

1) Strongly agree

2) Agree

3) Neither agree nor disagree

4) Disagree

5) Strongly disagree

6) Don’t know

7) Refused to answer

44) Do you think under reporting of sales/ over stating of purchases is done by the traders to evade tax?

1) Strongly agree

2) Agree

3) Neither agree nor disagree

4) Disagree

5) Strongly disagree
6) Don't know
7) Refused to answer

45) Do you think others are evading taxes, hence why should I pay?
1) Yes
2) No
3) Don't know

46) What are the possible consequences for people caught evading indirect tax, especially where it becomes public knowledge?

	Consequences	Response
1)	Social Stigma	
2)	Embarrassment	
3)	Negative impact on job prospects	
4)	Negative impact on credit record	
5)	Negative impact on ability to start up in business	
6)	Financial penalties	
7)	Financial problems	
8)	Criminal record	
9)	Prison sentence	
10)	No consequences	
11)	Others (please specify)	

Are you aware that people who evade paying tax are committing a criminal offence, and could get a criminal record or go to prison?

(1) Yes
(2) No
(3) Don't know
(4) Refusal

47) Tax evasion is ethical if everyone is doing it?
(1) Yes
(2) No
(3) No opinion

Tax Administration

48) Have you ever completed a tax return form?

1) Yes
2) No

If yes,

49) Tax Authorities paper forms are easy to complete

1) Strongly agree
2) Agree
3) Neither agree nor disagree
4) Disagree
5) Strongly disagree

50) Tax Authorities on-line forms are easy to complete

1) Yes
2) No

51) How well informed would you consider yourself to be regarding your tax affairs and tax entitlements?

1) Very well informed
2) Quite well informed
3) Neither informed nor uninformed
4) Not well informed
5) Not at all informed
6) Don't know

Which of these factors influences your motivation to pay taxes?

Sl. No	Question	Strong Influence	Somewhat an influence	Little influence	No influence at all	Don't know
52)	The tax authority would contact you on tax matters					
53)	The taxation authorities treat all taxpayers fairly					

54)	Your taxes are used to pay for public services					
55)	Concern that your name will be published on the tax enforcement's List of Defaulters					
56)	Because it is the law					
57)	Concern that someone might report you to the authorities					
58)	Belief that other taxpayers are declaring and paying honestly					
59)	Concern that you will have to pay interest charges for late payment of tax					
60)	Knowing that Tax Authorities has the power to receive certain information about you from 3rd parties (e.g., wages, interest, dividends)					
61)	Your personal belief that you should do the 'right thing'					
62)	Concern that you will be					

	prosecuted					
63)	Tax Authorities will generally accept that your return or claim is correct					
64)	Concern that you will be audited by Tax Authorities					
65)	Tax Authorities makes it easy for you to pay your taxes					

APPENDIX II

Questionnaire for Consumers

1) Are you aware of the tax laws of the government?
   i) Yes
   ii) No
   iii) Somewhat
2) Do you know that you are paying the tax even if you don't take the bill?
   i) Yes
   ii) No
3) Do you think that when you pay the price of a product you are also paying a tax also?
   1) Yes
   2) No
4) Are you aware that while receiving the bill you are also contributing to paying the taxes?
   1) Yes
   2) No
   3) Not aware
5) Do you have the habit of asking for the bills on purchase?
   1) Yes
   2) No
   3) Sometimes
6) Do the traders give the bills voluntarily?
   1) Yes
   2) No
7) Do the traders give the bills only when asked?
   1) Yes
   2) No
8) Are bills given only when bulk purchases are made?
   1) Yes
   2) No
   3) Mostly
9) Do the bills contain the name of the shop and other details?
   1) Yes
   2) No
   3) Not aware
10) Do you think that only big shops having more sales give bill?
   1) Yes
   2) No
   3) Don't know

11) Are the discounts and other offers rightly recorded in the bill?
   1) Yes
   2) No
   3) Don’t know
12) Has any trader ever harassed you when you asked the bill?
   1) Yes
   2) No
13) Why do you pay taxes?
   1) To avoid punishment
   2) To get public facilities
   3) It is an obligation
   4) Don’t know the reason
14) Are you aware of a new scheme of the government wherein you can send the photo of the bill to the Tax Department?
   1) Yes
   2) No
   3) Don’t know
15) Do you think such a step will help the state to receive proper taxes?
   1) Yes
   2) No
   3) No opinion
16) Do you think this will help to find the non-payers?
   1) Yes
   2) No
   3) No opinion
17) Will this help in reducing fraud practices?
   1) Yes
   2) No
   3) No opinion
18) Do you think that by not asking for the bills you are supporting evasion?
   1) Yes
   2) No
   3) Not aware
19) Would the traders pay the taxes without proper bill?
   1) Yes
   2) No
   3) Don’t know
20) Do you think deliberate tax evasion is increasing?
   1) Yes
   2) No
   3) Don’t know

21) Do you think deliberate non-compliance of tax is a minor problem?
    1) Yes
    2) No
    3) No opinion
22) Only few traders report their full income.
    1) True
    2) False
    3) Don't know
23) Are the tax administration and tax laws strict in the State?
    1) Yes
    2) No
    3) Don't know
    4) No opinion
24) The tax administration is able to detect those not paying the right amount of tax.
    1) True
    2) False
    3) Don't know
25) Is legally avoid paying taxes by using loopholes in laws accepted?
    1) Completely acceptable
    2) Somewhat acceptable
    3) Neither acceptable nor unacceptable
    4) Somewhat unacceptable
    5) Completely unacceptable
    6) Don't know

Which of these factors influences your motivation to pay taxes and how much does it influence?

26) The tax authority would contact you on tax matters
    1) Strong influence
    2) Somewhat an influence
    3) Little influence
    4) No influence at all
    5) Don't know
27) The taxation authorities treat all taxpayers fairly
    1) Strong influence
    2) Somewhat influence
    3) Little influence
    4) No influence at all
    5) Don't know
28) Your taxes are used to pay for public services
    1) Strong influence
    2) Somewhat an influence
    3) Little influence

4) No influence at all
5) Don't know

29) Concern that your name will be published on the tax enforcement's List of Defaulters
1) Strong influence
2) Somewhat an influence
3) Little influence
4) No influence at all
5) Don't know

30) Because it is the law
1) Strong influence
2) Somewhat an influence
3) Little influence
4) No influence at all
5) Don't know

31) Concern that someone might report you to the authorities
1) Strong influence
2) Somewhat an influence
3) Little influence
4) No influence at all
5) Don't know

32) Belief that other taxpayers are declaring and paying honestly
1) Strong influence
2) Somewhat an influence
3) Little influence
4) No influence at all
5) Don't know

33) Concern that you will have to pay interest charges for late payment of tax
1) Strong influence
2) Somewhat an influence
3) Little influence
4) No influence at all
5) Don't know

34) Knowing that Tax Authorities has the power to receive certain information about you from 3rd parties (e.g., wages, interest, dividends)
1) Strong influence
2) Somewhat an influence
3) Little influence
4) No influence at all
5) Don't know

35) Your personal belief that you should do the 'right thing'
1) Strong Influence
2) Somewhat an influence

3) Little influence
4) No influence at all
5) Don't know

36) Concern that you will be prosecuted
1) Strong Influence
2) Somewhat an influence
3) Little influence
4) No influence at all
5) Don't know

37) Tax Authorities will generally accept that your return or claim is correct
1) Strong Influence
2) Somewhat an influence
3) Little influence
4) No influence at all
5) Don't know

38) Concern that you will be audited by Tax Authorities
1) Strong Influence
2) Somewhat an influence
3) Little influence
4) No influence at all
5) Don't know

39) Tax Authorities makes it easy for you to pay your taxes
1) Strong Influence
2) Somewhat an influence
3) Little influence
4) No influence at all
5) Don't know

REFERENCE

REFERENCES

Abraham, K M. (2004): Kerala: The Fiscal Crisis and its Aftermath, in B A Prakash (ed.) *Kerala's Economic Development: Performance and Problems in the Post-Liberalisation Period,* Sage Publications, New Delhi

Aggarwai, P. K. (1996). Modified Value Added Tax (MODVAT): Structure and Resource Mobilisation.

Aiyar R, R., & K.N, K. (1991). State Finances in Kerala. In A. Bagchi, J. L. Bajaj, & W. A Byrd (Eds.), *State Finances in India* (pp. 430–487). National Institute of Public Finance and Policy.

Allingham, M. G., & Sandmo, A. (1972). Income tax evasion: A Theoretical Analysis. *Journal of Public Economics*, *1*(3-4), 323–338. https://doi.org/10.1016/0047-2727(72)90010-2

Alstadsæter, A., Johannesen, N., & Zucman, G. (2019). Tax evasion and inequality. *American Economic Review*, *109*(6), 2073-2103.

Anciūtė, A., & Kropienė, R. (2010). The Model of Tax Evasion, its Coherence to the Practical Tax Administration. *Ekonomika*, *89*(4), 49–65.

Andreoni, James, Brian Erard and Jonathan Feinstein. (1998): Tax Compliance, *Journal of Economic Literature,* 36(2),818- 860

Bittker, B. I. (1967). A Comprehensive Tax Base as a Goal of Income Tax Reform. *Harvard Law Review*, *80*(5), 925. https://doi.org/10.2307/1339337

Bratic, V. (2006). Tax Expenditures: A Theoretical Review. *Financial Theory and Practice*, *30*(2), 113-127.

Chakraborty, P., & Manay, J. (2011). Revenue Implications of GST and Estimation of Revenue Neutral Rate: A Study of Karnataka.

Chakraborty,Pinaki. (2016): "*Federalism, Fiscal Space, and Public Investment Spending: Do Fiscal Rules Impose Hard Budget Constraints?"* Working Paper no. 872, Levy Economics Institute of Bard College.

Beron, K. J., Tauchen, H. V., & Witte, A. D. (1988). A structural equation model for tax compliance and auditing.

Mohan, R., & Isaac, T. T. (2016). Sustainable Fiscal Consolidation Suggesting the Way Ahead for Kerala.

Eichfelder, S., & Vaillancourt, F. (2014). Tax Compliance Costs: A Review of Cost Burdens and Cost Structures. *Revista Hacienda Pública Española*, *210*(3), 111–

148. https://doi.org/10.7866/hpe-rpe.14.3.5

George, D. M. (2007). Fiscal Crisis of Kerala: Evolution, Experiment and Present Scenario. *Governance and Development: Lessons and Experience of Kerala*, 283.

George, K. (2011). *ISSN 2229-7634 Kerala Economy: Growth, Structure, Strength and Weakness*.

George, K. K. (1990). Kerala's Fiscal Crisis: A Diagnosis. *Economic and Political Weekly*, 2097-2105.

George, K. K. (1990): *Limits to Kerala model of Development: An Analysis of Fiscal Crisis and its Implications*, Second Edition, Centre for Economic Studies, Thiruvananthapuram

George, K. K. (1994): Trends in Kerala State Finances, in B.A. Prakash (ed.) *Kerala's Economy: Performance, Problems and Prospects*, Sage Publications, New Delhi.

George, K K. (2011): "*Kerala Economy: Growth, Structure, Strength and Weakness",* Working Paper No. 25, Centre for Socio-Economic and Environmental Studies, Kochi

George, K. K., & Krishnakumar, K. K. (2003). *Centre-State Relations, Finance Commissions and Kerala's Fiscal Crisis* (No. 10). Working Paper.

George, K. K., & Krishnakumar, K. K. (2012). *Trends in Kerala State Finances-1991-92 to 2012-13: A Study in the Backdrop of Economic Reforms in India*. Centre for Socio-Economic & Environmental Studies.

George, K K and K K Krishnakumar. (2003), "*Fiscal Management in Kerala Constraints and Policy Options*", Working Paper No.9, Centre for Socio-Economic and Environmental Studies, Kochi

Government of Kerala. (2014): "Third Report (2012-13) of the Kerala Public Expenditure Review Committee, (Third Committee)". December 2014.

Government of Kerala. (2016): "White Paper on State Finances"

Hallsworth, M., List, J. A., Metcalfe, R. D., & Vlaev, I. (2017). The Behavioralist as Tax Collector: Using Natural Field Experiments To Enhance Tax Compliance. *Journal of public economics*, *148*, 14-31.

India. Planning Commission. (2008). *Kerala Development Report*. Academic Foundation.

REFORM OF INTER-STATE TAXATION IN INDIA. (2000). https://www.nipfp.org.in/media/medialibrary/2014/11/Report_on_Reform_of_Inter-State_Taxation_in_India.pdf

Jayawardane, D. (2015). Psychological factors affect tax compliance. A review paper. *International Journal of Arts and Commerce*, *4*(6), 131–141.

Jeromi,P D. (2005): "Economic Reforms in Kerala", *Economicand Political Weekly,* 40(30), 3267-3277.

Joseph,K P. (1999): "Poor Management of State Finances of Kerala, in B A Prakash (ed.)*Kerala's Economic Development: Issues andProblems, S*age Publications, New Delhi.

Joseph, Mathew. (2003): Performance of the Southern States: A Comparative Study, *Economic and Political Weekly*, 38(37), 3915-3930

Kawano, L., & Slemrod, J. (2012). *The Effect of Tax Rates and Tax Bases on Corporate Tax Revenues: Estimates With New Measures of The Corporate Tax Base* (No. w18440). National Bureau of Economic Research.

Kittleson, M. (2012). A Cross-National, Longitudinal Test of Institutional Anomie Theory. *Masters Theses*. https://scholarworks.wmich.edu/masters_theses/54

Kopczuk, W. (2005). Tax bases, tax rates and the elasticity of reported income. *Journal of Public Economics*, *89*(11-12), 2093-2119.

Kuliš, D. (2004). The compliance costs of excise duties in Croatia. *Occasional Paper Series, 8*(23), 1–18.

Kumler, T. J., Verhoogen, E. A., & Frias, J. (2012). Enlisting workers in monitoring firms: Payroll tax compliance in Mexico.

Kurian, N J and Joseph Abraham. (1999): "The Financial Crisis: An Analysis", in B A Prakash (ed.) *Kerala's Economic Development: Issues and Problems,* Sage publications, New Delhi.

Marandu, Edward E, Christian Mbekomize and Alex Ifezue. (2014): "Determinants of Tax Compliance: A Review of Factors and Conceptualizations", *First Middle East Conference on Global Business, Economics, Finance and Banking*, Dubai.

McBarnet, D. (2019). *When compliance is not the solution but the problem: From changes in law to changes in attitude*. Centre for Tax System Integrity (CTSI), Research School of Social Sciences, The Australian National University.

McHugh, J., Petrova, I., & Baldacci, E. (2011). Measuring Fiscal Vulnerability and Fiscal Stress: A Proposed Set of Indicators. *IMF Working Papers*, *11*(94), 1. https://doi.org/10.5089/9781455253333.001

Meşca, S. L. (2013). The Dynamics of Tax Compliance. *Procedia - Social and Behavioral*

Sciences, *92*(714), 535–539. https://doi.org/10.1016/j.sbspro.2013.08.714

Mohan, R. (2018). *Analysis of Fiscal Indicators of Kerala Prepared for the 15th Finance Commission*. https://fincomindia.nic.in/writereaddata/html_en_files/fincom15/StudyReports/13.pdf

Mohan, R., & Shyjan, D. (2007). Taxing Powers and Developmental Role of The Indian States: A Study with Reference To Kerala. *Review of Development and Change*, *12*(1), 99–127.

Mukherjee, S. (2016). *GST in India: Chasing a Mirage or Reality?* (No. id: 11179).

Mukherjee, S. (2017). *Changing Tax Capacity and Tax Effort of Indian States in the Era of High Economic Growth, 2001-2014* (No. 17/196).

Nair, D. S. R., & Sensarma, D. R. (2017). STATE FINANCES OF KERALA.

Nair, S. R., & Eapen, L. M. (2017). *Goods and Services Tax and Price Control Measures: Lessons for India from Australian Experience* (No. 227).

Oommen, M A. (2008): Reforms and the Kerala Model, *Economic and Political Weekly*, 43(2), 22- 25.

Pitt, M. M., & Slemrod, J. (1988). The compliance cost of itemizing deductions: Evidence from individual tax returns.

Purohit, M. C. (1991). *Reforms in the Indian Sales Tax System*. National Institute for Public Finance and Policy.

Purohit, M. C. (1993). Adoption of value added tax in India: Problems and prospects. *Economic and Political weekly*, 393-404.

Purohit, M. C. (2010). Issues in the Introduction of Goods and Services Tax. *Economic and Political Weekly*, 12-15.

Rakhe, P. B. (2003). Estimation of tax leakage and its impact on fiscal health in Kerala.

Rao, M. G. (2001). Taxing services: issues and strategy. *Economic and Political Weekly*, 3999-4006.

Rao, M. G. (2009). Feasibility of Introducing GST in April 2010. *Economic and Political Weekly*, 10-13.

Rao, M. G. (2009). Goods and Services tax: Some progress towards clarity. *Economic and Political Weekly*, 8-11.

Rao, M. G., & Kumar, S. (2018). Envisioning tax policy for accelerated development in India. *Asia-Pacific Sustainable Development Journal*, *25*(1), 85-107.

Rao, M. G., & Rao, R. K. (2006). Trends and issues in tax policy and reform in India. In *India Policy Forum* (Vol. 2, Issue 1, pp. 55–122). National Council of Applied Economic Research.

Rao, M. G., & Sen, T. K. (1996). *Fiscal federalism in India: Theory and practice*. National Institute of Public Finance and Policy.

Rao, R. K. (2010). Goods and Services Tax: The 13th Finance Commission and the Way. *Economic and Political Weekly*, *45*(48), 71–77.

Rao, R. K., & Chakraborty, P. (2010). Goods and services tax in India: An assessment of the base. *Economic and Political Weekly*, 49-54.

Rao, R. K., & Mukherjee, S. (2009). Study on Mobilization of State Taxes and State's Potential to Raise Revenues-Jharkhand.

Redd, V. A. (2008). The Economic Psychology of Tax Behaviour. By Erich Kirchler. *Law & Society Review*, *42*(4), 942–944. https://doi.org/10.1111/j.1540-5893.2008.00364_5.x

Reserve Bank of India. (1990-2022) *State Finances: A Study of Budgets*

Sebastian, Jose, Anitha Kumary L and Shyama Nair. (2016): *Kerala Finances 2002-03 to 2011-12: An Evaluation*, Gulati Institute of Finance and Taxation, Thiruvananthapuram.

Sen, A. (2015). *Essays on sub-national value added tax of India and tax incidence*. Georgia State University.

Sen, A., & Wallace, S. (2017). *The Revenue Efficiency of India's Sub-National VAT* (No. paper1705). International Center for Public Policy, Andrew Young School of Policy Studies, Georgia State University.

Sen, T. K. (2012). Recent developments in Kerala state finances.

Sen, T. K., & Rao, M. G. (1993). State Finances in Kerala: Selected Issues. Report submitted to the Resource Commission – Government of Kerala. In *nipfp.org.in*. National Institute of Public Finance and Policy. https://www.nipfp.org.in/publications/reports/1337/

Sen, T. K., & Tulasidhar, V. B. (1988). *Taxable Capacity and Tax Effort of States in India*. National Institute of Public Finance and Policy.

Shyjan, D. (2016): Why is Fiscal Crisis? (Malayalam), in T.P Kunhikannan (ed.) Kerala2020, DC Books, Kottayam.

Slemrod, J., & Sorum, N. (1984). The compliance cost of the US individual income tax system. *National Tax Journal*, *37*(4), 461-474.

State Planning Board (1990-2021), *Economic Review*. Government of Kerala

State Planning Board. (1990-2022). *Budget in Brief*. Government of Kerala

Tauchen, H. V., Witte, A. D., & Beron, K. J. (1989). Tax compliance: An investigation using individual TCMP data.

https://nipfp.org.in/publications/working-papers/1683