# ROLE OF TAX TOWARDS GOVERNMENT REVENUE OF NEPAL

# (A CASE STUDY OF NEPAL TELECOM COMPANY LIMITED)

**A THESIS**

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*In partial fulfillment of requirements of the Master's Degree of Business Studies (M.B.S)*

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# RECOMMENDATION

This is to certify that the thesis

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## ROLE OF TAX TOWARDS GOVERNMENT REVENUE OF NEPAL (A CASE STUDY OF NEPAL TELECOM LIMITED)

has been prepared as appeared by this Department in the prescribed format of Faculty of Management. This thesis is forwarded for examination.

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| …… | ……. |
| Associate Prof. Dr. Jitendra Prasad Upadhyay | Prof. Dr. Jeewan Kumar Bhattarai |
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# VIVA VOCE SHEET

We have conducted the viva voce examination of the thesis presented by

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## ROLE OF TAX TOWARDS GOVERNMENT REVENUE OF NEPAL (A CASE STUDY OF NEPAL TELECOM LIMITED)

and found the thesis to be original work of the student and written according to prescribed format. We recommend the thesis to be accepted as partial fulfillment of the requirements for Masters Degree of Business Studies (M.B.S).

**Viva- Voce Committee**

Head, Research Department

and

Member (Thesis Supervisor) ……...

Member (External Expert) ……..

# DECLARATION

I hereby declare that the work reported in this thesis entitled **"ROLE OF TAX TOWARDS GOVERNMENT REVENUE (A CASE STUDY OF NEPAL TELECOM LIMITED)"** submitted to Research Department of Nepal Commerce Campus, Faculty of Management is my original work done in the form of partial fulfillment of the requirement for the degree of Master of Business Studies (MBS) under the supervision of Associate Prof. Dr. Jitendra Prasad Upadhyay of Nepal Commerce Campus.

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# TABLE OF CONTENT

## Chapter IV: Data Presentations and Analysis

# LIST OF TABLES

# LIST OF FIGURES

# ABBREVIATIONS

| | |
|---|---|
| A.D. | Anno Domini |
| ADSL | Asymmetric Digital Subscriber Line |
| A10 | Anusuchi/Annexure 10 |
| B.S. | Bikram Sambat |
| CDMA | Code Division Multiple Access |
| CEDA | Center for Economic Development and Administration |
| CUG | Caller User Group |
| etc. | Etcetera |
| EVDO | Evolution Data Optimized |
| FTA | Free Trade Area |
| FTTH | Fiber to the Home |
| F/Y | Fiscal Year |
| GDP | Gross Domestic Product |
| GON | Government of Nepal |
| GSM | Global System for Mobile communications |
| HMG | His Majesty Government |
| IRD | Inland Revenue Department |
| ITA | Income Tax Act |
| M.B.S | Master of Business Studies |
| MOF | Ministry of Finance |
| No. | Number |
| NRB | Nepal Rastra Bank |
| NTC/NT | Nepal Telecom |
| PAN | Permanent Account Number |
| PSTN | Public Switched Telephone Network |
| PWC | Price Water Coup |
| PE | Public Enterprises |

| | |
|---|---|
| Rs | Rupees |
| S.D. | Standard Deviation |
| S.N. | Serial Number |
| SAARC | South Association for Regional Cooperation |
| SPSS | Statistical Package for Social Sciences |
| SST | Social Security Tax |
| SEBON | Securities Exchange Board of Nepal |
| TDS | Tax Deduction at Source |
| T.U. | Tribhuvan University |
| VAT | Value Added Tax |
| VAS | Value Added Service |
| VDIS | Voluntary Discussion Disclosure in Income Schedule |
| WiMAX | Worldwide Interoperability for Microwave Access |

# ABSTRACT

Tax revenue has been primary source of government revenue. It has a distinct contribution to gross domestic product, government revenue. It constituted of direct tax and indirect tax. In comparison to direct tax, indirect tax has higher contribution to tax revenue, government revenue and gross domestic product. A fluctuating trend has been observed on the resource gap due difference in total government expenditure and total government income over past fifteen years. Also there has been years when resource surplus was observed. Public enterprises, private entities and government institutions have contributed a small portion towards tax revenue, government revenue and gross domestic product.

Nepal Telecom has been contributing significant portion of tax revenue through income tax, value added tax, tax deduction at source, property and vehicle tax and custom duty. It has also been contributing to government through various regulatory fees. Further, gross domestic product and government revenue have been highly related and dependent on with the income tax, value added tax and tax deduction at source contributed from Nepal Telecom. Thus Nepal Telecom has been identified as major contributor of tax to government.

# CHAPTER - I

# INTRODUCTION

## 1.1 General background

A tax is derived form from the Latin word '*taxo'* is a mandatory financial charge or some other type of levy imposed upon a taxpayer whether an individual or other legal entity by a governmental organization in order to fund various public expenditures. A failure to pay, or evasion of or resistance to taxation, is punishable by law. Taxes consist of direct or indirect taxes and may be paid in money or as its labor equivalent. Most countries have a tax system in place to pay for public, common, agreed national needs and government functions: some levy a flat percentage rate of taxation on personal annual income, some on a scale based on annual income amounts, and some countries impose almost no taxation at all, or a very low tax rate for a certain area of taxation. Some countries charge a tax both on corporate income and dividends; this is often referred to as double taxation as the individual shareholder receiving this payment from the company will also be levied some tax on that personal income.

A government needs source of funds to carry out various functions for the betterment of its people. In the past, the governments were merely 'policy states', they were interested only in maintaining law and order situation of the country. But today government has to perform much more functions for the welfare of its people and these functions are not possible without income. The government needs sufficient resources to carry out development plans, handle day-to-day administration, maintain peace and security and launch other public welfare activities. Thus, spending of such public expenditure is required to help promote economic growth, stability and equitable income distribution in the economy. The government collects the required funds through different sources; mainly from revenues and debt. Revenues come basically from two sources: tax and non-tax. Tax revenues include customs duty, excise duty, VAT, income tax while non-tax revenues include revenues like gifts, grants revenues from public enterprises, administrative revenues such as registration taxes, fines and penalties. Among different sources, taxation is the most important source of revenues for modern government. The remainder of the resources

comes from non-tax revenues and borrowing. (Dhakal, Bhattarai, Koirala, & Bhatttarai, 2017)

Tax can be classified into two categories direct tax and indirect tax. A direct tax is a tax pay by a person or whom it is legally imposed. In direct tax, the person paying and bearing tax the same tax payer cannot collect direct tax from other person. Examples of direct taxes are income tax, property tax, vehicle tax, interest tax etc. An indirect tax is a tax imposed on one person but partly or wholly paid by another. In indirect tax, the person paying and bearing the tax is different. Taxpayer can collect indirect tax for other persons. Examples of indirect tax are value added tax, excise duty, import and export duty etc. (Dhakal, Bhattarai, Koirala, & Bhatttarai, 2017)

Income tax is a progressive tax. Let us take a case study of United States. Political leaders discuss progressive taxation as a tax reform. When the United States government first implemented a system of taxation, economists soon observed a uniform tax rate would fall more heavily upon poor people than wealthy ones. Let us take an example. If one household earns $100,000 and another earns $30,000 and both pay a flat tax of 10 percent, the wealthy family can still spend $90,000 after taxes. The family in poverty must somehow scrape by on $27,000 (equivalent to $500 per week). Since both households must pay certain necessary expenses, such as food and housing, the low income earner will experience far greater tax hardship than the affluent earner. Congress attempted to ease the tax burden on poor families by creating a graduated system of progressive taxation, taking a higher percentage of income as affluence increases. Supporters of progressive taxation point to several benefits. First, this system enables poor and middle class households to live more comfortably while still paying taxes, a process investing them in citizenship. Second, it enables the government to establish high upper tax brackets to generate revenue. Third, a progressive taxation system potentially produces more total income for the government to use to fight deficits than a flat tax. Fourth, progressive taxation improves the spending power of lower-income earners, potentially stimulating free market economies more effectively than flat taxes. Progressive taxation offers several disadvantages to the people. The grading system has given way to hundreds of complex incentives, which drives the cost of compliance up to more than $215 billion (compared to the IRS's conservative $20

billion estimate). Congress has created complex rules for tax credits and deductions. A tax credit enables a taxpayer to subtract a specific sum from taxes owed to the government. It differs from a deduction, which simply reduces the amount of total income subject to taxation. (IVN News, 2017)

Income tax has contributed 18.7 percent to total GDP in Nepal in year 2016. Among SAARC countries, it has contributed 13.2 percent and 12.4 percent in Bhutan and Sri Lanka respectively in year 2016. Similarly, among developed countries, it has contributed 10.9 percent, 11.8 percent, 14.3 percent, 22.4 percent, 27.6 percent to total GDP in United States, Canada, Singapore, Australia and New Zealand respectively in year 2016. (World Bank, 2017)

The fundamental objective of taxation is to finance government expenditure. The government requires carrying out various development and welfare activities in the country. For this, it needs a huge amount of resources. The government collects resources by imposing taxes. So, raising more and more revenues to meet the ever increasing government expenditure has become an important objective of taxation. The government not only raises public revenue through taxation but also imposes restrictions on the use of certain goods. The government can impose excise duty on tobacco, liquor etc. to restrict the consumption of harmful goods. The government also raises revenues through import and export duties but their specific objectives are otherwise. Import duties are levied to restrict imports of those goods which may harm the local industries and therefore help the country's international balance of payments and protect industries from overseas competition. Export duties may be levied to restrict the export of those goods which are required within the country. Similarly, taxes can correct for externalities and other forms of market failure such as monopoly. In this way, the government regulates the economy in accordance with the needs of the country. Tax is imposed on persons according to their income level. High earners are imposed high tax through progressive tax system. It prevents wealth from being concentrated in a few hands of the rich and hence narrows down the gap between the rich and the poor. Tax collected by the government is spent for carrying out various welfare use activities. In this way, the wealth of the rich is redistributed to the whole community. Tax helps in redistributing wealth in the country. Tax serves as

an instrument for promoting economic growth, stability and efficiency. The government controls or expands the economic activities of the country by providing various concessions, rebates and other facilities. Low rate of taxation during a business depression will accelerate more income to the people and help in raising demand and thus revive business activity. On the contrary, high rates may be useful to check inflationary pressure on prices. Tax policy may be used as a regulatory mechanics to achieve price stability, check business booms and depression. The government can reduce the unemployment problem in the country by promoting various employment generating activities. Industries established in remote parts or industries providing more employment are given more facilities. As a result, the unemployment problem can be reduced to a great extent through liberal tax policy. Regional disparity has become a chronic problem to the developing countries like Nepal. Tax is one of the ways through which regional disparities can be minimized. The government provides tax exemptions or concessions for industries established or activities carried out in backward areas. This will help increase economic activities in those areas and ultimately regional disparity reduces to minimum. (Dhakal, Bhattarai, Koirala, & Bhatttarai, 2017)

### 1.2 Introduction to Nepal Telecom

In Nepal, operating any form of telecommunication service dates back to 1916 A.D. But formally telecom service was provided mainly after the establishment of MOHAN AKASHWANI in 1948 A.D. Later, as per the plan formulated in first national five year plan (1956-1961) A.D, telecommunication department was established in 1959 A.D. In order to modernize the telecommunications services and to expand the services, during third five-year plan (1966-1971) A.D, telecommunication department was converted into telecommunications development board in 1969 A.D. After the enactment of Communications Corporation Act 1971, it was formally established as a fully owned government corporation called Nepal Telecommunications Corporation in 1975 A.D for the purpose of providing telecommunications services. After serving the nation for 29 years with great pride and a sense of accomplishment, Nepal Telecommunication Corporation was transformed into Nepal Doorsanchar Company Limited (NDCL) from 13$^{th}$ April 2004 A.D. Nepal Doorsanchar Company Limited is a company registered under the Company

Act 1996 A.D. However, the company is known to the general public by the brand name "Nepal Telecom" as its registered trademark. Nepal Telecom has always put its endeavors in providing its valued customers a quality service since its inception. To achieve this goal, technologies best meeting the interest of its customers has always been selected. The nationwide reach of the organization, from urban areas to the economically non- viable most remote locations, is the result of all these efforts that makes this organization different from others. Definitely, Nepal Telecom's widespread reach assist in the socio-economic development of the urban as well as rural areas, as telecommunications is one of the most important infrastructures required for development. Accordingly, in the era of globalization, it is felt that milestones and achievements of the past are not adequate enough to catch up with the global trend in the development of telecommunication sector and the growth of telecommunication services in the country will be guided by technology, declining equipment prices, market growth due to increase in standard of life and finally by healthy competition. Converting Nepal Telecom from a government owned monopoly to a business oriented, customer focused company in the competitive environment, Nepal Telecom invites all the shareholders in the sacred work of nation building. (Nepal Telecom, 2018)

Services provided to individual customers by Nepal Telecom:

- Public Switched Telephone Network (PSTN) land line service
- Global System for Mobile communications (GSM) postpaid
- GSM prepaid
- Nepal Telecom (NT) data packages
- Volume based Asymmetric Digital Subscriber Line (ADSL) service
- Fiber to the Home( FTTH)
- Code Division Multiple Access (CDMA) sky phone
- CDMA Evolution Data Optimized (EVDO) service
- Easy phone service

Services provided to corporate customers by Nepal Telecom:

- Landline services

- GSM services
- Toll free services
- Notice board services
- Dedicated internet & intranet leased services
- ADSL services
- CUG - Caller User Group
- Worldwide Interoperability for Microwave Access (WiMAX) wireless broadband
- Value Added Service (VAS)

The mission of the Nepal Telecom is to develop Nepal Telecom as a progressive, customer spirited and consumer responsive entity. It is committed to provide nation-wide reliable telecommunication service to serve as an impetus to the social, political and economic development of the country. The vision of Nepal Telecom is to remain a dominant player in telecommunication sector in the country while also extending reliable and cost effective services to all. The goal of Nepal Telecom is to provide cost effective telecommunication services to every nook and corner of country. (Nepal Telecom, 2018)

### 1.3 Statement of Problem

Nepal is among the least developed countries in the world. The per capita GDP is 746 dollars in F/Y 2015/2016. Despite estimated drop in population living below the poverty line based on consumption to 21.6 percent at the end of fiscal year 2015/16, the devastating earthquake of 2015 and disruption in supplies that followed as a result of border obstruction is estimated to have added the number of poor to the country's poor population. (Ministry of Finance, 2017) .

Nepal has been suffering from resources constraints, poverty, increasing unemployment, high turnover of youths to abroad, inability to cope with improved commercial agriculture, subsistence living standard and poor infrastructures. Also, it is even more challenging to achieve sustainable development at central, state and local level by utilizing the available resources for creating investment opportunities in all the levels.

Further, most of the individuals and businesses are not within the ambit of taxation. Improper maintenance of books of accounts, maintenance of double books of accounts, improper documentation for the expenses and incomes accrued, inefficient tax administration by tax officers at their respective areas and corruption among tax officials are some of the major problems being faced in present context which leads to tax evasion. Moreover, a lot of youths are going abroad for employment which reduces creation of revenue in the country itself.

The budget deficit was 3.1 percent of GDP in F/Y 2015/2016. The ratio of government expenditure to GDP stood at 26.7 percent in F/Y 2015/16. Such ratio was 25 percent in its preceding fiscal year while this ratio had remained at 22.1 percent in F/Y 2013/14. (Ministry of Finance, 2017)

## 1.4 Objectives of the Study

The main objective of the study is to examine the contribution of tax to government revenue of Nepal. However, the following specific objectives have been set out for the study.

1. To evaluate the impact of tax and its contribution to the government revenue.
2. To identify the contribution of Nepal Telecom towards income tax, VAT and tax deduction at source payment to Inland Revenue Department.
3. To recognize problems for improving existing scenario of income tax payment system of Nepal Telecom.

## 1.5 Research Questions

The main questions addressed for the study are:

a. What is the proportion of tax in government revenue collection?
b. Whether the resource gap of Nepal is in increasing or decreasing trend?
c. Whether Nepal Telecom has a significant role in generation of revenue through tax or not?

## 1.6 Significance of the study

The main significance is to analyze the contribution of tax towards government revenue and GDP of the nation. Further, a case study of Nepal Telecom is taken in order to know the tax contribution to government. Also, the improvement areas for improving the present system of income tax payment in Nepal Telecom is recognized.

## 1.7 Limitations of the Study

Every study has its own limitations. Major limitations regarding to the study are as follows:

1. This study is mainly based on secondary data collected from government publications, Nepal Telecom central office and internet.
2. The case study cannot be generalized for other public companies.
3. All the required data were not provided by the officials of Nepal Telecom due to their management policies and confidentiality norms.
4. Specifically for TDS payment of Nepal Telecom exact data could not be obtained as it was mixed with advance income tax at A10 of IRD. Generally, most of the corporate or individual parties of Nepal Telecom did not deduct TDS while making payment, but as Nepal Telecom had a lot of investment income in the form of bank interest, the banks deducted TDS flat at fifteen percent while making interest payment to Nepal Telecom. Thus, TDS in the study was mainly one which was deducted by banks on interest income of Nepal Telecom.

## 1.8 Organization of the Study

The study is organized into the following five chapters:

### i. Introduction

This chapter deals with general background, statement of problems, objectives of study and organization of the study.

### ii. Review of Literature

The second chapter review of literature was done to know what research had been done in the related topic in earlier studies. This chapter was divided into two main aspects:

- Definition, concepts, terminologies and contents of direct and indirect tax
- Review of books, articles, journals & dissertations

### iii. Research Methodology

The third chapter mentions how and in which manner the research is carried out. The study followed descriptive, analytical and empirical research design.

### iv. Presentation and Analysis of data

This chapter fulfills the objectives of this study by presenting the data and analyzing the data with the help of statistical tools and techniques followed by methodology.

### v. Summary, Conclusion, Recommendation

The fifth chapter consists of summary, conclusions and recommendations of the study. References and appendices was presented at the end of study.

# CHAPTER – II

# REVIEW OF LITERATURE

Review of literature means reviewing research studies or other relevant propositions in the related area of the study. So that all the past studies, their conclusions, deficiencies might be known and further research could be conducted. It was an integral and mandatory process in research works. The main reason for a full review of research in the past was to know the outcomes of those investigations in areas where similar concepts and methodologies had been used successfully.

## 2.1 Definition of tax

Tax is a type of levy or financial charge or fee imposed by a government on legal entities or individuals. It is a compulsory payment from individuals, households and firms to the government. It is a kind of money of which it is the legal duty of every citizen of the country to pay honestly. It may be levied on income, property and activity. Tax is computed and paid as prescribed in the law. If a person defies the tax payment, he may be punished in the court of law. Hence, tax is not a voluntary payment or donation, but an enforced contribution, imposed by government. A taxpayer is not entitled to compel the government, while paying taxes, to give something to him in return of the amount he has paid. Taxation can be considered as a convenient method of raising revenue which in turn is linked with the welfare of the people directly or indirectly.

Tax is an enforced contribution not a voluntary payment, it is generally payable with money, it is levied on person or property, it is proportionate in character, it is levied as per prevailing laws. Taxpayers do not get corresponding benefits. Tax is spent for common interest of people, it is commonly required to be paid at regular intervals. Taxpayers failing to pay taxes are subject to punishment by law. (Dhakal, Bhattarai, Koirala, & Bhatttarai, 2017)

## 2.2 Classification of tax

A commonly applied classification of taxes was into direct and indirect taxes. This classification was based on the shifting of the burden of tax.

### 2.2.1 Direct tax

A direct tax is a form of tax paid by a person on whom it is legally imposed. It is collected directly by the government from the person who bears the tax burden. Taxpayers need to file tax returns directly to the government. Therefore, direct tax cannot be shifted. The impact or the money burden and the incidence are on the one and the same person. In other words, the same person pays and bears the tax burden. It is the tax on income and property. Examples include Income tax, property tax, vehicle tax, interest tax, expenditure tax, death tax, gift tax, etc. Direct Tax is equitable as it is imposed on person as per the size of property or income. Time, procedure and amount of tax to be paid is known with certainty. The cost of collecting direct taxes is low as they are mostly collected "at the source". If the government suddenly needs more funds in an emergency, direct taxes can well serve the purpose. The yield from income tax can be easily increased by raising tax rate. As a community grows in numbers and prosperity, the return from direct taxes expands automatically. The direct taxes yield large revenue to the government. (Dhakal, Bhattarai, Koirala, & Bhatttarai, 2017)

#### 2.2.1.1 Origin of direct tax

Great Britain was the first country in the world to introduce the modern income tax. It introduced income tax in Nepal in 1799 to finance the war fought with France. Only 1980, it was accepted as a permanent tax. USA introduced income tax in 1862 to generate revenue to finance civil war. However, it become a permanent feature only in 1913 after 16$^{th}$ amendment to USA constitution in neighbor country India, while income tax in its modern form was adopted in 1860, several experiments were made enacted in 1866. After introducing income tax act 1886, New Zealand in 1891, Australia in 1915, Canada in 1917, Sri Lanka in 1932, Venezuela in 1943, South Korea in 1948 and Nepal in 1959. After First World War, the income tax become an important source of tax revenue in many developed countries. (Agrawal G. , 1978)

From the First World War decade, income tax had shown as an important source of revenue in developed country. In the beginning of introducing time, it was generally levied at flat rate, only after 1909, the principal of progression was introduced from UK and New Zealand. (Rijal, 2014)

### 2.2.1.2 Historical development of direct tax laws in Nepal

After the independence of the country in 1951, the role of government has drastically changed. Government was enforced to perform development activities besides regular functions. So, it was realized to impose tax on basis of profit and remuneration. Consequently, "Finance Act 1959" was passed. In 1960 (2017), a formal "Income Tax Act" was enacted in accordance with the provision of Finance Act 1959 for the first time in Nepal. In three year experience "The Business Profit and Remuneration Act 1960" was found very narrow and vague and it was replaced by "The Nepal Income Tax Act 1962 (2019)". "The Income Tax Act 2002" also replaced "The Income Tax Act 1974".The Income Tax Act (ITA) had relations with the constitution, Finance Act, Income Tax Rules and Decisions of the Supreme Court. These made clear the provisions in Income Tax Law. (K.C., 2006) (Rijal, 2014) (Deuja, 2010)

The development of Income Tax Act in Nepal has been presented below:

<u>Business Profit and Remuneration Tax Act 1960 A.D. (2017B.S.)</u>

Income tax in Nepal was first introduced in the FY 1959/60. It was then known as business profit and remuneration tax. The imposition of tax was governed by "The Business Profit and Remuneration Tax Act 1960" and rules made there under. This act consisted 22 sections. The source of income for tax purpose was limited only to business and remuneration (Only two heads of income: business and remuneration.) Tax on remuneration was to be deducted at source but the specified deductions were not provided. Deductions of expenses were not specified for the calculating taxable income. Tax on remuneration was deducted at source. (TDS).The tax officer was empowered to assess tax on best judgment assessment. In case of default, fines up to 5,000 rupees were prescribed. Profits from industries were granted a rebate of 25 percent and profit from small industries were granted a rebate of 50 percent. This act was very narrow and vague, high discretionary

power was granted to tax officer, many loopholes and inadequate provisions were there. So because of these reasons this act was replaced by “Income Tax Act 1962(2019)”. (K.C., 2006) (Rijal, 2014) (Deuja, 2010)

Income Tax Act 1962 A.D. (2019 B.S.)

This act was an extension of “The Business Profit and Remuneration Tax Act 1960 (2017)”. It had 29 sections. It was amended in 1972. Income tax was defined as all kinds of income such as profit from business, profession, remuneration and occupation, house and land rent, agriculture, insurance business, agency and any other sources. The basis of tax assessment was specified on the best judgment estimate of the tax officers. Provision was made for the installment basis of tax for the first time. Provision was made for reassessment of tax as well as rectification of arithmetical errors. Carry forward of losses was allowed for a period of two years. Provision was made for the exemption of income tax for industries for a period of not exceeding ten years. The residential status of the taxpayer for the purpose was defined. The act granted the power to constitute the income assessment committee. Deductible expenses as well as methods of calculation of taxable income were specified. This Act had also some weaknesses. The changing socio-economic environment of the nation had forced to change the ITA. As a result, the ITA 1974 (2031) was made by abolishing the existing Act 1962. (K.C., 2006) (Rijal, 2014) (Deuja, 2010)

Income Tax Act 1974 A.D. (2031 B.S.)

The ITA 1974 was said to be the refined form of the ITA 1962. It had 66 sections. This act was amended in 1977, 1979, 1980, 1984, 1985, 1986, 1989 and 1992 to make it more practical and to eliminate confusing terms. This act had clarified the definitions about income tax, taxpayer and year of income, personal status of taxpayer, non-resident taxpayer, net income and so on. Five sources of income had been specified. They were agriculture, industry, trade, profession, remuneration, house and compound rents and others. Carry forward of losses was allowed within subsequent three years. It had made provision for self-assessment of tax for the first time in Nepal. Methods of computing the taxable income from each head had been specified with deductions allowable. Deduction was allowed for life insurance premium. Taxpayer was required to keep accounts and records of the income and was preserved for six years. Provision was made to make

agreement for avoidance of double taxation with foreign governments. Provision was made relating to reassessment or additional assessment of tax. Although ITA 1974 (2031) was far ahead than the previous acts, yet it had many deficiencies and weaknesses. It had used many vague or unclear words like “reasonable”, “appropriateness” etc. It had also provided high discretionary powers to the tax officer in the matter of tax assessment. (K.C., 2006) (Rijal, 2014) (Deuja, 2010)

#### 2.2.1.3 Income Tax Act 2002 (2058 B.S)

Income Tax Act 2002 was implemented from 2058 B.S. This act had replaced the ITA 1974 (2031) and other act related to income tax. HMG enacted income tax rules 2059 B.S. in accordance with the authority given under section 138 ‘g’. ITA 2002 B.S. had 143 sections. Amended ITA 2002 has dismissed the section 66. The act was broad, scientific and international standard level. ITA 2058 B.S. had classified income into three headings. They were business, investment and employment. This act had included all the previous relating to income tax. It was a law of income tax code. Provision was made to impose tax to all income sources uniformly. Provision was made for the deduction of all expenses relating to income earnings. This act had given the option for husband and wife as a separate natural individual until they did not accept as a couple. Provision had been made for the deduction of all expenses relating to each income in accumulation from taxpayer’s income. Carry forward of losses was allowed for the period of four subsequent years. This limit was extended up to five years for banking and insurance business. Provision of tax incentives had continued for infrastructure construction, Electricity projects and special industries and also carry forward of losses was allowed for the period of seven years to infrastructure and electricity project. It had clearly included the rights and duties of taxpayers. Provisions were made to claim for deduction of pollution control expense, research and development expenses, repair or maintenance expenses and donation. It had classified the taxpayer into natural person and entity. Entity included company, partnership firm, and trust and so on. The Inland Revenue Department was responsible for the implementation and imprisonment. This act had determined the rate of income tax itself for the first time, which was used to be determined by the Finance Acts in the previous years. A person was defined as a resident whose place of abode was in Nepal and who lived

in Nepal at any time or who lived in Nepal for 183 days or more within the income year or who was an employee of HMG posted abroad during the income year. The income of an approved retirement fund was free from tax. But retirement payments in the hands of employees were taxable. The act had broadened the tax base. Unlike previous tax act, tax rates were spelled out in the act. The tax rates and concessions were harmonized on equity grounds. The act had introduced a pool system of charging depreciation. Intangible assets were also depreciated, the pool system of deprecation of fixed assets had introduced at first time. All types of assets were classified into five categories, deprecation rate for classes A, B, C &D was based on diminishing balanced method but straight-line method for class E. The act had first introduced taxation on capital gains. The act had provided liberal loss set-off and carry forward/backward provisions, inter head adjustments of losses were clearly specified. There was the provision of carry forward of loss from subsequent four year. The act had also provided the facilities to carry backwards of loss for five subsequent years in case of bank insurance and long term contract. The act had provided a stringent fine and penalty for the defaulters. The act had introduced a provision for administrative reviews to allow the tax administration to correct mistakes made by tax administrators internally. Global incomes of a resident were made taxable. Non- residents were also taxed on their incomes with source in Nepal. List of expenses were inclusive. All expenses relating to income had been made admissible. The act had made provision of international taxation. Foreign tax credit had been introduced for the first time. The act had separated administrative and judicial responsibilities by distinguishing civil liabilities of the taxpayers from criminal liabilities. The act had given the option for husband and wife as a separate natural individual until they did not accept as a couple. There was the special provision for deduction pollution control cost and Research & Development expenses. ( Law commission Nepal, 2018) (K.C., 2006) (Rijal, 2014) (Deuja, 2010)

### 2.2.2 Indirect tax

An indirect tax is a form of tax imposed on one person but partly or wholly paid by another. It is collected by mediators who transfer the taxes to the government and also perform functions associated with filing tax returns. Hence, indirect tax can be shifted. In indirect tax, the impact and incidence of tax are on different persons. In other words, the person paying and bearing the tax is different. It is the tax on consumption or expenditures. Examples include VAT, excise duty, import & export duty. It is more convenient as the taxpayer does not have to pay a lump sum amount for tax. It is paid in small amounts and only when making purchases. There is mass participation as each and every person getting goods or services has to pay tax. Indirect tax is also the means of reaching the poor as they are generally exempted from paying direct taxes. There is less chance of tax evasion as the taxpayers pay the tax collected from customers. The collection of tax takes automatically when goods are bought and sold. The government can check on the consumption of harmful goods by imposing higher taxes. (Dhakal, Bhattarai, Koirala, & Bhatttarai, 2017)

#### 2.2.2.1 Indirect tax in international context

The twentieth century generated mounting revenue requirements which could not be met by traditional indirect taxes and income tax systems. The concept of VAT was first devised in Germany post World War I. Prior to the introduction of VAT, a cascading turnover tax was imposed every time: goods were transferred in the process of production and distribution to the consumer. Other forms of indirect taxes included sales taxes and customs duties. While VAT was a modern tax, sales taxes and customs duties date back to the Roman Empire. *Portorium*, customs duty and tax imposed on imports and exports, was one of the earliest taxes to be implemented in the Roman era. The concept of indirect taxes was defined with the imposition of sales tax during the reign of Julius Caesar. By the reign of Caesar Augustus the sales tax was four percent for slaves and one percent for everything else. In Germany, Wilhelm von Siemens, upon recognizing the problems with the existing turnover taxes, devised a new tax system which is commonly referred to today as VAT. It was deemed that a major flaw with the turnover taxes was that they were cascading. Simply stated, cascading taxes could not be reclaimed by the purchaser, so that the tax component of the price of goods become larger and there were between producer and consumer with

obvious distortion effects as between highly integrated enterprises and other enterprises. France extended this new taxing system in 1954. The new extended version of the new taxing system was fondly labelled value-added tax. Following Wilhelm von Siemens of Germany, Thomas Adams discussed the concept of value added type taxation in the USA in 1921 based on the principle of reducing the tax on sales by the tax already paid on business inputs in order to avoid the tax-on-a-tax effect and to remove the incentive to vertically integrate a business. VAT had developed since its inception and was commonly a multi-stage VAT. However, prior to the widespread use of the multistage VAT system, a single stage consumption tax was imposed by several countries and it was this single stage consumption tax that was still utilized at the retail level by almost all states in the United States and by several provinces in Canada. The single stage consumption tax was often referred to as sales tax. It should be noted that the USA remained one of the few industrialized countries that had not adopted VAT. Another country without a central VAT system was India. The USA and India were the most populous countries without a central VAT system. (Springer, 2018)

#### 2.2.2.2 Historical development of indirect tax laws in Nepal

Value Added Tax was introduced in 1995 A.D. (2052 B.S) for increasing revenue mobilization by making effective the process of collecting revenues required for the economic development of the country, it was expedient to impose a value added tax on all transactions including the sale, distribution, delivery, importation, exportation of goods or services and to collect revenues effectively by regulating the process of collection. Therefore, parliament had made this act in the twenty fourth year of the rule of His Majesty King Birendra Bir Bikram Shah Dev. (Inland Revenue Department, 2018)

Customs Act 2007 A.D. (2064 B.S) was made to amend and consolidate customs laws, where it was expedient to amend and consolidate the prevailing custom laws in order to make safe and facilitate international trade by making customs administration systematic, transparent and accountable; therefore, the legislature-parliament had enacted this Act. ( Law commission Nepal, 2018)

Excise duty was enacted on 2002 A.D (2058 B.S). Before the act, the excise duty was imposed only on domestically produced goods. A countervailing duty of the same rate was

imposed on the imported goods of similar nature. Historically, these duties had constituted one of the largest sources of tax revenue in Nepal. It had covered a wide range of domestic products (more than fifty commodities) accounting for 14.3 percent of total tax revenue during 1991 A.D. (2048 B.S). (Dhakal, Bhattarai, Koirala, & Bhatttarai, 2017)

Tax Administration

Inland Revenue Department under Ministry of Finance administers VAT and excise duty. Department of Customs under Ministry of Finance administers customs duty on import and export.

### 2.2.2.3 Components of indirect tax

Value Added Tax (VAT)

VAT is a general consumption tax assessed on the value added to goods and services. It is a general tax that applies, in principle, to all commercial activities involving the production and distribution of goods and the provision of services. It is a consumption tax because it is borne ultimately by the final customer. It is not a charge on companies. It is charged as a percentage of price, which means that the actual tax burden is visible at each stage in the production and distribution chain. It is an indirect tax, in that the tax is collected from someone other than the person who actually bears the cost of the tax (namely the seller rather than the customer). As VAT is intended as a tax on consumption, exports (which are, by definition, consumed abroad) are usually not subject to VAT. It is collected fractionally, via a system of deductions whereby taxable persons can deduct from their VAT liability the amount of tax they have paid to other taxable persons on purchases for their business activities. This mechanism ensures that the tax is neutral regardless of how many transactions are involved. In other words, it is a multi-stage tax, levied only on valued added at each stage in the chain of production of goods and services with the provision of a set-off for the tax paid at earlier stages in the chain. The objective is to avoid 'cascading', which can have a snowballing effect on prices. It is assumed that due to cross-checking in a multi-staged tax, tax evasion will be checked, resulting in higher revenues to the government. VAT falls under the general category of a consumption tax, meaning taxes on what people but rather than on their earnings, savings or investments. (K.C., 2006) (Dhakal, Bhattarai, Koirala, & Bhatttarai, 2017)

Customs Duty

Customs is an authority or agency in a country responsible for collecting and safeguarding customs duties and for controlling the flow of goods including animals, personal effects and hazardous items in and out of a country. Depending on local legislation and regulations, the import or export of some goods may be restricted or forbidden, and the customs agency enforces these rules. The customs may be different from the immigration authority, which monitors persons who leave or enter the country, checking for appropriate documentation, apprehending people wanted by international arrest warrants, and impending the entry of others deemed dangerous to the country. In most countries customs are attained through government agreements and international laws. A customs duty is a tariff or tax on the import as well as export of goods. It is a border tax. Nepalese customs administration collects customs duty, value added tax, excise and other taxes at the border points. The revenue collected at the boarder points roughly accounts 42 percent of the total revenue and 50 percent of the total tax revenue. Customs duty alone contributes 19.2 percent of the total revenue. Customs Administration is in the forefront in terms to internal revenue mobilization. This does not mean that the customs role needs to be confined to internal revenue mobilization. It is equally important to enhance trade facilitation by adopting international convention, recommendation and best practices without compromising with the national security. The GON has enacted Customs Act 2007 A.D, with an aim to amend and consolidate the prevailing customs laws in order to make safe and facilitate international trade by making customs administration systematic, transparent and accountable. (K.C., 2006) (Dhakal, Bhattarai, Koirala, & Bhatttarai, 2017)

Excise Duty

An excise or excise tax may be defined broadly as an inland tax on the production or sale of a specific good. Excises are distinguished from customs duties, which are taxes on importation. Excises, whether broadly defined or narrowly defined, are inland taxes,

whereas customs duties are broader taxes. An excise is an indirect tax, meaning that the producer or seller who pays the tax to the government is expected to recover the tax by raising the price paid by the buyer. Excises are typically imposed in addition to another indirect tax such as a VAT. In common terminology an excise is distinguished from a VAT in these ways: an excise typically applies to a narrower range of products; an excise is typically heavier, accounting for higher fractions of the retail prices of the targeted products; and an excise is typically specific, whereas a sales tax or VAT is ad valorem, i.e. proportional to value. Excise duty is a form of an indirect tax which is imposed on the consumption of selected goods such as alcoholic beverages, tobacco products etc. Typical examples of excise duties are taxes on tobacco and alcoholic beverages, tobacco products etc. According to the Oxford English Dictionary (2005), an excise is "a tax levied on certain goods and commodities produced or sold within a country and on licenses granted for certain activities." The term produced or sold is applicable to both domestic and foreign products. But the word certain is not further explained in the definition. Generally the lists of such goods are readily provided by governments and the lists may differ from country to country. In India, it is described as in indirect tax levied and collected on the goods manufactured in India. In the United Kingdom, excisable lists include both goods and services such as alcohol, environmental taxes, gambling, holdings and movements, hydrocarbon oil, money laundering, refunds of duty, revenue trader's records, tobacco duty, and visiting forces etc. In Australia, an excise as a tax levied on certain types of goods produced or manufactured or imported in Australia. These include alcohol, tobacco and petroleum and alternative fuels. In Nepal, excise duties were restricted to a narrow range of domestic products. It covered tobacco products, liquor, beer, flavored soft drinks, cement and plastic goods. Consequently, its contribution dropped down to 9.9 percent of total tax revenue during 2002 A.D. However, in recent years, the government has introduced excise duties as a substitute for custom duties in selected commodities to recover the revenue loss from the reduction of custom duties due to WTO commitment. The effect of excise duty is also faced by narrow range of population. At present, large sales volumes, few producers, limited consumer, inelastic demand and lack of close substitutes are the basic charm of excise system in the country. The basic relatively simple administrative efforts provide limited opportunities for tax evasion. The excise duty is very

helpful instrument to control the consumption which is regarded as lacking merit or as a likely to cause negative externalities. (K.C., 2006) (Dhakal, Bhattarai, Koirala, & Bhatttarai, 2017)

### 2.3 Review of books

(Amatya K. , 1965) wrote a book entitled "Nepalma ayakar byabashta". In his book, the writer gave a sample description of "Nepal Income Tax Act 1962" with some examples how taxable incomes were derived from different sources of income. In his book, the writer had analyzed, basically the legal aspect of the income tax. It had become the historical document in the field on income tax.

(Poudyal, 1993) wrote a book entitled "Income tax laws and practice". The writer had described the most of the related terms in respect with assessment of different income tax. This book had been divided in nine chapters. The writer had described the meaning of tax, basic feature of income tax law, direct and indirect tax, brief history of income tax in Nepal, types of taxpayers, Industrial Enterprises Act 2049, and income from remuneration. Methods of computing net income from remuneration, industry, business, profession and vocation, tax deduction at source, income tax authorities, power of tax office, penalty and appeals, rights and duties of tax payer had also been described in this book.

(Khadka R. , 1994) wrote a book entitled "Nepalese taxation: A path for reform". He dealt with national and local taxes and tax administration in Nepal. He had described the introduction, development, existing structure, main problems and possible direction of reforms. He had identified the major problems of income tax and possible direction of reform. He had identified the major problems as weak tax administration, imbalance and inadequate organization pattern, lack of adequate information system, lack of coherent tax policy and inadequate organization pattern, lack of adequate physical and other facilities.

(Silwal, 2002) in his book "Value added tax: A Nepalese experience in Kathmandu" had expressed his practical experience about VAT. VAT extended to all levels of production and distribution. Similarly, it covered all stages and services. Any discrimination in taxing goods or services or exempting any of them rendered VAT ineffective. The books clearly analyzed why GON introduced VAT. The writer expressed a version by borrowing government declaration that, major changes might be made in order to make the tax

administration fair, efficient and effective. The businesses wanted the system to change and were willing to pay a reasonable tax but they wanted the system transparent and fair. Tax base issues, rate structure issues, exemption issues and threshold issues might be taken into consideration for proper functioning of VAT. Every country which had adopted VAT had proved itself to be a productive tax for betterment of Government Revenue.

(Dhakal K. , Income tax and house and compounded tax law with practice with VAT., 2002) wrote his revised edition of his book "Income tax and house and compounded tax law and practice with VAT". He had described historical aspects of income tax and legal provision relating to income tax with numerical examples. This book was fully based on the syllabus of B.B.S third year. This book was published before income tax act 2002 A.D. It was very useful to know the general information before the latest act. The writer had not analyzed the role of income tax, structure of income tax and problems of income tax system in Nepal. This book was more helpful to know about provision made under "Income Tax Act 1974"

(Mallik, 2003) published a book named "Nepalese modern income tax system" which was fully based on new income tax of Nepal. He had described historical aspects of income tax and legal provisions of relating to income tax with numerical examples. This book was very much useful to anyone who was interested to know about general information and legal provision of income tax act, 2002. The writer had presented the complex act in simple manner so that it would be easy to understand the act. The writer had shared his expertise in his book. All the provisions of the old act the new act were duly compared and described.

(Adhikari C. , 2003) wrote a book entitled, "Modern taxation in Nepal". The writer had described the provisions and laws related to income taxation in Nepal according to new ITA 2002. This book was divided into five chapters. First chapter had described about theoretical concept of taxation. Second chapter had described about income tax system in Nepal. In this chapter, writer had described about head and sources of incomes, employment or remuneration income, tax on pension income, international taxation etc. VAT had been described in part three. Fourth part had been described about property tax, house and compound tax etc. Windfall gain tax and other provisions were described in fifth

chapter. This book was written for students of T.U., especially for B.B.S and M.B.S students. However, it was useful to taxpayer, tax administration and others.

(Aryal & Poudel, 2004) wrote a book entitled "Taxation in Nepal". This book was based on ITA 2002. This book was divided into three parts. It had described about tax, features of ITA, capital receipt or revenue receipt, special provision for entities and retirement saving, classification of taxpayers, head and sources of income, assessment, collection and recovery, tax authorities and their powers, rights and duties etc. This book was also based on the B.B.S. level. Method of income tax was dealt with numerical illustration. This book was useful for academic purpose and practical point of view.

(Bhattarai & Koirala, 2004) published two books named "Taxation in Nepal; tax laws and tax planning". The book's main objective was to meet in conformity with the MBS level syllabus of T.U. He had presented the numerical examples to derive the taxable income and tax liability. For the practical problems and provision relating to the income tax act and VAT this book was very useful. Relevant theoretical and practical aspects were discussed in the books. The book had shown taxable income in computed under employment, business and investment sources.

(Amatya, Pokharel, & Dhakal, 2004) wrote a book entitled "Taxation in Nepal". The authors had described the provisions made under income tax laws. This book was divided in thirty-one chapters in their books. They had described about income tax and its development in Nepal, tax accounting qualification, allocation and characterizing of amounts exemptions, concession and tax rates and expenditure. Taxpayer had special provision for natural person and entity, investment income need and sources, income from employment and from business, set-off and carry-forward of losses, net gain, international taxation, right and duties of taxpayers, appeal property tax in Nepal. This book had been written to fulfill the course requirement of Tribhuvan University. It was based on B.B.S third year and also for M.B.S.

(Khadka R. B., 2005) wrote a book entitled "Modern tax administration in Nepal". This book was very much useful to anyone who was interested in Nepalese income taxation. This book gave almost complete information about the tax system of Nepal from its ancient

time to current situation of income tax system. He had shared his expertise in his book. Basically author focused on the administrative aspects of the tax system in Nepal.

(K.C., 2006) had published a book in revised edition entitled "Tax laws and tax planning: theory and practice". He divided the book in four parts. In his first part, he described the conceptual foundation. In second part, he described basic concept of income taxation of Nepal. In the third part, he described VAT in Nepal and at last, he described tax planning this book had presented practical as well as theoretical aspects. The book was useful to the students, tax administrator, auditor and others who was interested in tax. This book was useful to research work.

(Agrawal J. , 2009) published a book named "Income Tax: theory and practice." This book had focused on the students of chartered accountants and taxation. This book had also focused to be a practitioner's reference and handbook, rather than theoretical compilation on the subject. His book was not only based on description but also had interpreted the various provision of the new act. This book was useful to anyone who was interested in the subject of taxation. In this book Agrawal had explained Income Tax Act, 2058 and had compared with international accounting standard. This book was also source of information of the subject of income tax. Sufficient theoretical concepts with clear interpretation as well as sufficient examples were included in this book. He briefly explained the new terms and provisions. For examples, foreign permanent establishment, controlled foreign entities, transfer pricing, non-business chargeable assets, qualification, allocation and characterization of amounts etc.

(Dhakal, Bhattarai, Koirala, & Bhatttarai, 2017) published a book named "Tax laws and tax planning". The book's main objective was to meet in conformity with the MBS level syllabus of T.U. The writers had presented the numerical examples to derive the taxable income and tax liability. For the practical problems and provision relating to the income tax act and VAT this book was very useful. Relevant theoretical and practical aspects were discussed in the books. The books as shown taxable income in computed under employment, business and investment sources. Further, many aspects of exemptions, deductions, provision for depreciation, income from major heads, tax planning, tax evasion, VAT, customs and excise were introduced with proper examples and concepts.

But the book was not able to give a picture of coordination of individual tax payers. Also, many aspects of direct and indirect tax were not given in detail which made the students of MBS level unable to get proper knowledge of the acts.

### 2.4 Review of articles and journals

(Nepal Rastra Bank, 2002) published a journal entitled, "Trend in Nepal's import duties: implications with future trade liberalization". The journal states, Nepal was accelerating the process of trade liberalization that had commenced in the mid-eighties; this was reflected in membership of WTO, agreement of a framework for a Free Trade Area (FTA) in south Asia and entering an FTA. Since import duties were presently an important source of government revenue, the likely impact of trade liberalization on this important revenue source had to be evaluated. The study addressed need through an elasticity and buoyancy analysis of import duties over the span of fiscal year 1980/81 to 2001/2002 as well as analyzed the responsiveness of Nepal's import duties through empirical regression and five year a head projection. The paper found low measure of elasticity and buoyancy as well as low elasticity of import duties, although five-year projections did not suggest a decline in contribution to government revenue. The prior indicated low productivity and responsiveness of the domestic tax base suggesting a need to accelerate reforms of the tax administrative system while the latter indicated that diversification of the import basket would be appropriate.

(2004) (Pant, 2004) had written an article entitled, "Problems in tax administration and their remedies" published in journal of finance and development. He had comprehensively explained about the problems and their remedies related with tax revenue, the major types of practical problems and challenges in tax administration. He had mentioned in his article were showing limited amount of transaction showing low selling price, lack of issuing and taking bills, lack of showing the real factory cost, commercial fraud, lack of co-operation in tax auditing, legal ambiguity and complexity in implementation and lack of coordination between Inland Revenue Department and Revenue Investigation Unit. Meanwhile, he had recommended some valuable suggestions to solve the problems and to overcome the challenges. They were: statistical and information system should be properly managed, fixed norms and standards to be used to assess selling price and factory cost, the billing system to be made compulsory, coordination between inland revenue office with various

entities of government, Revenue Investigation Department and its related units important role.

(Giri, 2012) had written an article on "Nepal holds national tax day to encourage paying" in Khabar South Asia on 15th December 2012. He mentioned that for more than 2 decades Bangladesh honored its top taxpayer in nationally televised ceremony, acknowledging their contribution to the national economy. India had observed income tax day for the past three years. On 16th November 2012 Nepal joined the crowd. With its first ever national tax day, Nepal too pumped up effort to educate citizen and increased tax compliance. "The awareness among the general public is very low" Bishnu Prasad Nepal Director General of IRD told Khabar South Asia. The majority of tax related problems arose from lack of awareness about critical importance of tax revenue in the economy. IRD Director General Tanka Mani Sharma told that IRD had conducted a workshop of revenue officials from across the country and found that level of awareness among general public about taxpaying was one of the major problems in revenue collection.

(Prasad, 2015) published an international journal in 'World customs journal' entitled "Nepal's excise systems and the legal frameworks: agendas for reform". The writer mentioned, Nepal's accession to the World Trade Organization (WTO) in 2003, the Bay of Bengal Initiative for Multi Sector Technical and Economic Cooperation (BIMSTEC) in 2004, and implementation of the South Asian Free Trade Area (SAFTA) in 2006, the Government of Nepal had pursued a policy of mobilizing excise taxes to compensate for revenue losses resulting from the reduction and abolition of customs tariff rates and other obligations of WTO membership. The principal objective of this article was to analyze the existing system of excise administration in Nepal and identify ways in which the administrative burden might be reduced for both taxpayers and the government. The study identified an urgent need to shift from the current physical control system to a self-removal system, as well as a need to rationalize the country's excise legislative provisions, in line with international practices.

(Yadav A., 2015) published an international journal of scientific & engineering research entitled, "Contribution of income tax and effects on revenue generation of Nepal" in 2015. The study focused on the structure and trend of income tax and its contribution to government revenue, composition of direct tax, ways of generating more income tax,

prospect of online taxpaying system, tax evasion and ways of controlling, trend of resource gap and contribution of income tax revenue to GDP. Primary data were collected through a set of questionnaire from tax administrators, tax experts and tax payers. Data analysis was performed with the use of chi-square statistical method. Findings showed that the attitude towards paying income tax have significant difference in tax experts, tax administrators and tax payers whereas attitude towards income tax rate, taxpaying habit, good source of government revenue, environment of paying income tax, effectiveness of ITA 2002 for collecting government revenue, income tax system, effectiveness of income tax system for achieving its objectives, the practice of income tax evasion, poor taxpaying habit and tax evasion the crucial factor for low income tax collection, online taxpaying system there is no significant difference. Finally, online tax payment system had to be implemented to ease tax payer, implementing computerized system to keep track of all tax payers and tax payers had to be educated sufficiently on the importance of tax.

(Kafle, 2017) had written an article entitled "Kar chhut ko prayog ra kanuni pakshya" in Karobar daily. The writer described some regions of tax non- compliance. All non-profit government organizations were not exempted from tax. NRB and SEBON were exempted from tax. Lawmakers were not able to view the organizational structure and professional aspect of other non-profit organizations. Moreover, political parties were not bounded to obtain PAN. All organizations including political parties whenever they crossed the threshold limit of tax, they were bound to pay tax, whether they were exempt from tax or not. Hence, responsible entities had to mind on these loopholes in tax system.

(Dhakal P. , 2018) had written an article entitled "Kar pranali ma sudhar ko kacho" in Karobar daily. The article focused on reformation of investigation based tax assessment and persuaded on technology based service to taxpayers. The writer prioritized proper implementation of tax laws, information and evidence based assessment for tax evasion and risk based audit. Further, the writer necessitated division of taxpayers according to annual turnover and tax assessment in fair and just grounds as per organizational or professional capacities. Taxpayers must be encouraged for self-assessment practices as much as possible.

(Nepal Telecom, 2018) in its newsletter for June 2018 contained an article entitled "Rajaswa ko sakaratmak stithi" where it had mentioned that in F/Y 2017/2018 mobile data

contribution to revenue expected to increase in comparison to previous years as per available data usage tendency. Further, revenue from GSM which was the highest customer wise product of the company had also expected to increase in this year. As research of Price Water Coup (PWC) in year 2017 international voice service had decreased by 20 percent globally and also in Nepal from NTC and other telecommunications companies.

### 2.5 Review of thesis and dissertations

(Sharma, 2009) submitted a thesis entitled "A study on contribution of VAT revenue from NTC to the total VAT revenue of government" analyzed VAT revenue of Government after enactment of VAT system in Nepal. She pointed out the different services of NTC that contributed VAT revenue to the government. Further, she analyzed total revenue and VAT revenue trend of the NTC and the problems of revenue collection from VAT and recommended a possible measure to increase revenue mobilization from VAT.

(Tamang, 2012) submitted a thesis entitled "A study on collection of revenue from direct and indirect taxation in Nepal" analyzed the contribution of direct and indirect tax in GDP, total revenue and total tax revenue. He further analyzed the structure of direct and indirect taxes. Also, he found effectiveness and problems of direct and indirect tax in Nepal and found out important factor that influenced effectiveness of income tax in Nepal. Moreover, he analyzed the practice of direct tax and indirect tax in Nepal, its revenue collection trend for past 10 fiscal years. Empirical analysis has been done with the help of self- structured questionnaire. He further recommended that due to poor performance on internal revenue collection and mobilization, the government of Nepal had dependency to increase which was not desirable for any economy and further, remedy should be made in due time by the country to run in the path or economic development.

(Adhikari K. , 2012) submitted a thesis entitled "Revenue planning and control of Nepal Telecom Ltd." described role of public enterprises in Nepal, concept of revenue and profit planning, sales planning and forecasting, strategic and tactical sales plan, factors affecting sales forecast plan, components of sales plan, expenses and overhead budget, long and short range plan, aspects of performance reports. The main objective of the study was to analyze trend of existing revenue planning practices of NTC, highlight the current revenue

planning premises adopted and its impact on profitability, evaluate variance between revenue and cost planning etc.

(Sapkota, 2012) submitted a thesis entitled "Income taxation in Nepal: analysis of structure and problem" analyzed the income tax structure of Nepal and analyzed the problem of resource mobilization and resource gap in Nepal. She identified the share and trend of corporate income tax on government revenue of Nepal and identified the major problems and difficulties of existing IT act and also provided necessary suggestions and recommendations. She focused on amount received from tax at different years at different heads of income and provided clear idea about the tax system in Nepal and provided suggestion of different person to make effectiveness technique to collect tax. She recommended promotion of internal revenue collection and mobilization rather than heavily reliance on loans and grants for government revenue. She further recommended extension of coverage of income tax among businesses, reformation of tax administration and adequate knowledge among taxpayers about the income tax system of Nepal.

(Rijal, 2014) submitted a thesis entitled "Contribution of income tax to government revenue" analyzed the contribution of income tax to national revenue of Nepal and income tax structure of Nepal. He further identified the major problems while collecting income tax and tested the level of understanding of tax payers and provides appropriate suggestions. He described the various components, concepts of income tax and showed the impact of income tax to the government revenue by analyzing figures of past years and also showed the views of tax experts, tax administrators, tax payers about the effectiveness of tax administration. He also focused on the most important factor for effectiveness of income tax in Nepal and showed the government revenue structure, composition of tax revenue, composition of direct tax and composition on indirect tax.

(Subedi, 2016) submitted a thesis entitled "Contribution of corporate tax to government revenue in Nepal" where he identified the structure of income tax in Nepal and assessed the contribution of corporate income tax to total revenue, total tax revenue, GDP of Nepal. He further analyzed the trend & pattern of corporate income tax in Nepal and found out the effective ways to improve tax administration system. He focused on internal revenue collection was the most reliable alternative to bare expenditure of government and conduct

development activities and income tax was most important and relevant sources of revenue since it followed the basic principles of taxation such as equity and progressively. Further, political instability had affected the economic system seriously. He recommended stakeholders to be aware about the change of tax rates in detail, tax rates made simple to understand. Moreover, the indirect tax in Nepal was dominating tax revenue in comparison to direct tax, thus he recommended resource mobilization through direct taxation should be focused.

### 2.6 Research gap

The role of revenue is crucial for the overall development of the country. There was a gap between the present research and previous research conducted. All the researchers mentioned in review of literature were concerned with the study of laws, provisions and structure of tax revenue. Most of them had indicated the inefficiency of tax administration, widespread tax evasion and weak government law and policies. No attention was paid on the tax administration and its effectiveness. But majority were based on theoretical facts of tax administration. They had identified the problem of tax evaluation at high level and suggested for its control .The role of tax administration was crucial for the effectiveness of tax collection.

Moreover, previous studies were focused on direct tax or income tax contribution only but actually indirect tax in today's date has been able to contribute higher to government revenue through VAT, customs duty and excise duty. Therefore, the research has been conducted on the topic "Role of tax towards government revenue of Nepal; A case study of Nepal Telecom". But positive steps have been taken by government like VDIS program. Also TDS, VAT (monthly and quarterly) and advance tax (Quarterly) and tax returns annexures could be verified and submitted on online portal on provisional basis and later finalized return could submitted. Here, NTC has been one of them and prime enterprise to contribute revenue for government through both direct tax and indirect tax. Most of the previous researchers did not study about contribution of indirect tax as a whole from NTC. They only focused on contribution from direct tax or income tax.

# CHAPTER- III

# RESEARCH METHODOLOGY

Research methodology systematically solves the research problems. It may be understood as a science of studying how research is done scientifically. It describes the methods and process applied in the entire aspect of the study.

## 3.1 Research design

Research design is an overall plan or framework for the collection and analysis of data. The research design used in this study has been descriptive, analytical and empirical. Both qualitative and quantitative method have been followed to make the research more empirical.

## 3.2 Nature and sources of data

The information and data required for this study have been taken both from primary and secondary sources to fulfill the objective of the study.

### 3.2.1 Primary data

In order to recognize problems for improving existing scenario of income tax payment system of Nepal Telecom, primary information has been collected through written opinions of key informants of accounts department of Nepal Telecom, central department, Bhadrakali. For this, a structured questionnaire has been prepared and distributed to the concerned key informants and collected.

### 3.2.2 Secondary data

This study is mainly based on secondary sources. Secondary data and information has been collected from the following sources:

- Annual Report of Inland Revenue Department (IRD)
- Economic Survey from Ministry of Finance (MOF) of Government of Nepal
- Annual Reports of Nepal Telecom

### 3.3 Sample period covered

The sample period has been of past fifteen Fiscal Years from F/Y 2002/03 to F/Y 2016/17 for nationwide data. In case of Nepal Telecom, all the required data has been available only since last ten years, so data from F/Y 2007/08 to F/Y 2016/17 have taken for analysis of tax revenue.

### 3.4 Population, sampling and sampling procedure

The population for this study has been nationwide data. Since, Nepal Telecom is one of the highest tax paying organization in Nepal, a case study of it has been taken purposively for a detailed study.

### 3.5 Selection of study area

The study area specifically has been central office of Nepal Telecom, central department, Bhadrakali, Kathmandu. However, the annual data provided has not been limited to central office.

### 3.6 Data collection procedure

Since, the study has been largely based on secondary sources, secondary data has been collected from government publications through economic surveys, and also with the use of internet, IRD annual report and annual report of Nepal Telecom and central office of Nepal Telecom (Bhadrakali).

A small survey has been also conducted with the key informants of accounts department of Nepal Telecom to identify problems of income tax payment system of Nepal Telecom.

### 3.7 Data processing and analyzing procedure

Information and data has been processed and tabulated by using Microsoft Excel and then transformed to Microsoft Word. To analyze and draw the required conclusion from the collected data and descriptive and inferential statistical tool has been used by using SPSS.

### 3.8 Tools and methods of data analysis

Collected data has been presented in form of table and charts. Descriptive statistical tools used have been percentage and average.

Further advanced statistical tools like co-relation, multiple regression and time series analysis have been used for further analysis and drawing conclusion.

### 3.9 Model specification

#### 3.9.1 Co-relation:

Co-relation coefficient between GDP (X) with tax revenue (Y) along with government revenue (X) and tax revenue (Y) has been calculated for overall nationwide data from F/Y 2002/03 to F/Y 2016/17.

Co-relation coefficient between GDP(X) with total tax contribution(Y) along with government revenue (X) and total tax contribution (Y) has been calculated for Nepal Telecom data from F/Y 2007/08 to F/Y 2016/17.

#### 3.9.2 Multiple regression:

**For nationwide data**

The relation of government revenue (Y) to direct tax ($X_1$) and indirect tax ($X_2$) has been calculated for nationwide data from F/Y 2002/03 to F/Y 2016/17.

Symbolically,

$Y = a + b_1X_1 + b_2X_2$

Where,

Y= Government revenue

a = Y intercept

b = Slope coefficient

$X_1$ =Direct tax

$X_2$ =Indirect tax

**In case of Nepal Telecom**

Similarly, the relation of government revenue(Y) to income tax ($X_1$), VAT ($X_2$) and TDS ($X_3$) has been calculated for Nepal Telecom data from F/Y 2007/08 onwards to F/Y 2016/17. Symbolically,

$Y = a + b_1X_1 + b_2X_2 + b_3X_3$

Where,

Y= Government revenue

a = Y intercept

b = Slope coefficient

$X_1$ =Income tax contributed by Nepal Telecom to government

$X_2$ =VAT contributed by Nepal Telecom to government

$X_3$ = TDS contributed by Nepal Telecom to government

**3.9.3 Time series analysis**:

The straight line trend of change in tax revenue with time has been shown for nationwide data.

Equation of straight line trend,

$Y = a + bX$

Where

Y = Tax revenue

a = Y intercept

X = Time

Moreover, the straight line trend of change in tax contribution of Nepal Telecom with time shall be shown for Nepal Telecom data.

Equation of straight line trend,

$Y = a + bX$

Where

Y = Tax contribution of Nepal Telecom

a = Y intercept

X = Time

### 3.10 Variable specification

**Gross Domestic Product (GDP)**: Gross Domestic Product (GDP) is the monetary measure of the market value of all the final goods and services produced in a country during a period of time. For the study GDP is taken at basic price and is the dependent variable in co-relation and time series analysis.

**Government Revenue (GR)**: Government Revenue is the sum total of Tax Revenue and Non Tax Revenue. It is taken as dependent variable in co-relation, regression analysis and time series analysis.

**Tax Revenue**: Tax Revenue is total tax collected from the national overall from direct as well as indirect sources. It is sum of direct taxes and indirect taxes. It is taken as independent variable in co-relation and time series analysis.

**Tax Contribution of Nepal Telecom**: Tax contribution of Nepal Telecom includes property and vehicle tax, income tax, VAT, TDS and custom duty for the purpose of study. It is taken as independent variable in co-relation and time series analysis.

**Direct Tax**: A direct tax is a tax paid by a person or whom it is legally imposed and the person paying and bearing tax the same tax payer cannot collect direct tax from other person. Direct tax collected from entire nation is taken for study. It is taken as an independent variable in regression analysis.

**Indirect Tax**: An indirect tax is a form of tax imposed on one person but partly or wholly paid by another and is collected by mediators who transfer the taxes to the government hence the burden can be shifted. Indirect tax collected from entire nation is taken for study. It is taken as an independent variable in regression analysis.

**Income Tax contributed by Nepal Telecom to government**: Income tax contributed by Nepal Telecom denotes Corporate Income Tax that it pays annuals as a direct tax. It is taken as an independent variable in regression analysis.

**Value Added Tax (VAT) contributed by Nepal Telecom to government**: Value contributed denotes net contribution from VAT payable and VAT receivable which is an indirect tax paid to Government. It is taken as an independent variable in regression analysis.

**Tax Deduction Tax (TDS) contributed by Nepal Telecom to government:** TDS is the advance income tax which parties of Nepal Telecom deduct and deposit to IRD following required procedure while making payment to Nepal Telecom. Generally, most of the corporate or individual parties of Nepal Telecom do not deduct TDS while making payment, but as Nepal Telecom has a lot of investment income in the form of bank interest, the banks deduct TDS flat at fifteen percent while making interest payment to Nepal Telecom. Thus, TDS in the study is mainly one which is deducted by banks on interest income of Nepal Telecom. It has been taken as an independent variable in regression analysis.

### 3.11 Hypothesis Testing

**3.11.1 T-test**: T-test has been used to test the overall significance of the estimated multiple regression equation or finding out of all the partial regression coefficients are simultaneously equal to zero. (Gujrati, Porter, & Gunasekar, 2015)

a) Null Hypothesis ($H_0$): There is no significant relationship between dependent variable and independent variables in multiple regression analysis. If the calculated value of t is less than tabulated value of t (i.e. $T_{cal}<T_{tab}$) then null hypothesis is accepted.

b) Alternative Hypothesis ($H_1$): There is significant relationship between dependent variable and independent variables in multiple regression analysis. If the calculated value of t is more than tabulated value of t (i.e. $T_{cal}>T_{tab}$) then alternative hypothesis is accepted.

**3.11.2 F-test**: F-test has been calculated for measuring overall significance of the model.

a) Null Hypothesis ($H_0$): There is no significant relationship between independent variables in multiple regression analysis. If the calculated value of F is less than tabulated value of F (i.e. $F_{cal}<F_{tab}$) then null hypothesis is accepted.

b) Alternative Hypothesis ($H_1$): There is significant relationship between independent variables in multiple regression analysis. If the calculated value of F is more than tabulated value of F (i.e. $F_{cal}>F_{tab}$) then alternative hypothesis is accepted.

# CHAPTER – IV

# PRESENTATION AND ANALYSIS OF DATA

This chapter is concerned with the presentation and analysis of data obtained through different secondary as well as from primary sources. It is the focal part of the study to analyze direct and indirect tax contribution to government revenue.

## 4.1 Contribution of taxation to the government revenue and GDP in Nepal

The tax revenue is composed of direct tax revenue and indirect tax revenue. The composition of tax revenue and indirect tax revenue has been presented and analyzed. Further, the contribution of direct tax revenue and indirect tax revenue to tax revenue, government revenue and GDP has been presented and analyzed.

### 4.1.1 Structure of government revenue of Nepal

The sources of government revenue are divided into tax revenue and non- tax revenue. The tax revenue is composed of: taxes on income and profits and capital gains, taxes on payroll and workforce, taxes on property, taxes on goods and services, taxes on international trade and transactions, other taxes. But non-tax revenue is composition of property income, sale of goods and services, penalties and fines and forfeiture, voluntary transfers other than grants, miscellaneous revenue.

The table above and the figure shows the trend of government revenue and its components in past fifteen financial years. We can observe that tax revenue holds major portion of government revenue in comparison to non- tax revenue. At the F/Y 2002/03 the tax revenue composed of 40,896 million which is around 75 percent of government revenue whereas non – tax revenue composed 13,643 million which is of around 25 percent of government revenue. But along with time, the composition of tax revenue has been showing increasing trend and the composition of non- tax revenue has been showing increasing as well as decreasing trend. The figure below shows that tax revenue is in increasing trend with total revenue and moves simultaneously with the slope of total revenue but non- tax revenue is much lower and is increasing and decreasing at slow rate in comparison to tax revenue.

**Table 4.1.1**

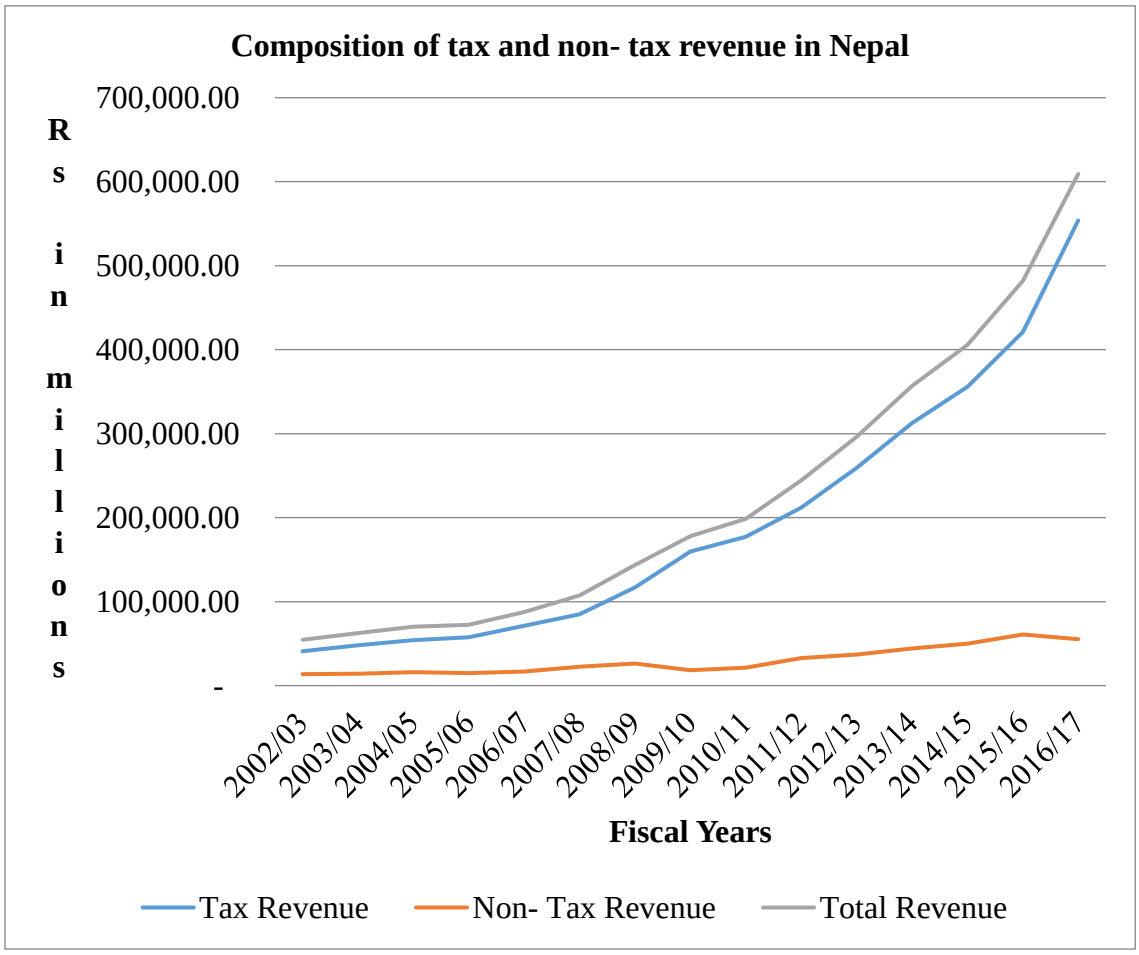
**Composition of tax and non- tax revenue in Nepal**

**(Rs in million)**

| F/Y | Tax revenue | Non- tax revenue | Government revenue | Percentage of tax revenue to government revenue | Percentage of non- tax revenue to government revenue |
|---|---|---|---|---|---|
| 2002/03 | 40,896.00 | 13,642.90 | 54,538.90 | 74.99 | 25.01 |
| 2003/04 | 48,173.00 | 14,158.00 | 62,331.00 | 77.29 | 22.71 |
| 2004/05 | 54,104.70 | 16,018.00 | 70,122.70 | 77.16 | 22.84 |
| 2005/06 | 57,430.40 | 14,851.50 | 72,281.90 | 79.45 | 20.55 |
| 2006/07 | 71,126.70 | 16,585.40 | 87,712.10 | 81.09 | 18.91 |
| 2007/08 | 85,155.50 | 22,467.00 | 107,622.50 | 79.12 | 20.88 |
| 2008/09 | 117,051.90 | 26,422.60 | 143,474.50 | 81.58 | 18.42 |
| 2009/10 | 159,785.30 | 18,206.40 | 177,991.70 | 89.77 | 10.23 |
| 2010/11 | 177,227.20 | 21,148.70 | 198,375.90 | 89.34 | 10.66 |
| 2011/12 | 211,722.60 | 32,651.40 | 244,374.00 | 86.64 | 13.36 |
| 2012/13 | 259,214.90 | 36,806.20 | 296,021.10 | 87.57 | 12.43 |
| 2013/14 | 312,441.20 | 44,179.50 | 356,620.70 | 87.61 | 12.39 |
| 2014/15 | 355,955.70 | 49,910.70 | 405,866.40 | 87.70 | 12.30 |
| 2015/16 | 421,096.60 | 60,865.00 | 481,961.60 | 87.37 | 12.63 |
| 2016/17 | 553,867.00 | 55,313.00 | 609,180.00 | 90.92 | 9.08 |
| **Total** | **2,925,248.70** | **443,226.30** | **3,368,475.00** | | |
| Average | 365,656.09 | 55,403.29 | 421,059.38 | 83.84 | 16.16 |

***Source: Economic Survey, Ministry of Finance, F/Y 2011/12 to 2017/18***

**Figure 4.1.1**




***Source: Table 4.1.1***

At F/Y 2016/2017 the tax revenue composed of around 91 percent of government revenue whereas non- tax revenue composed of around 9 percent of government revenue. On an average tax revenue comprises 83.84 percent and non-tax revenue comprises 16.16 percent of government revenue. Thus, tax revenue is significant source of government revenue.

### 4.1.2 Share of government revenue and tax revenue to GDP

Government Revenue is sum total of tax revenue and non- tax revenue which is mentioned in Table 4.1.1. The government revenue and tax revenue is compared with GDP.

The table and figure show the trend of tax and government revenue compared with GDP over past fifteen years. GDP was 767,582 million in F/Y 2002/03 and has been increasing with time and reached 3,759,190 million in F/Y 2016/17 which increased by around 4.8 times over fifteen years. Percentage of tax revenue to GDP has shown increasing as well as decreasing trend over time. But overall percentage of tax revenue to GDP is in increasing trend though it has decreased in some F/Y. This is because tax revenue has increased at greater proportion than increase in GDP. On an average tax revenue comprises 8.71 percent of GDP. Percentage of government revenue to GDP has shown increasing as well as decreasing trend over time. It has shown an overall increasing trend. On an average government revenue comprises of 10.25 percent of GDP.

**Table 4.1.2**

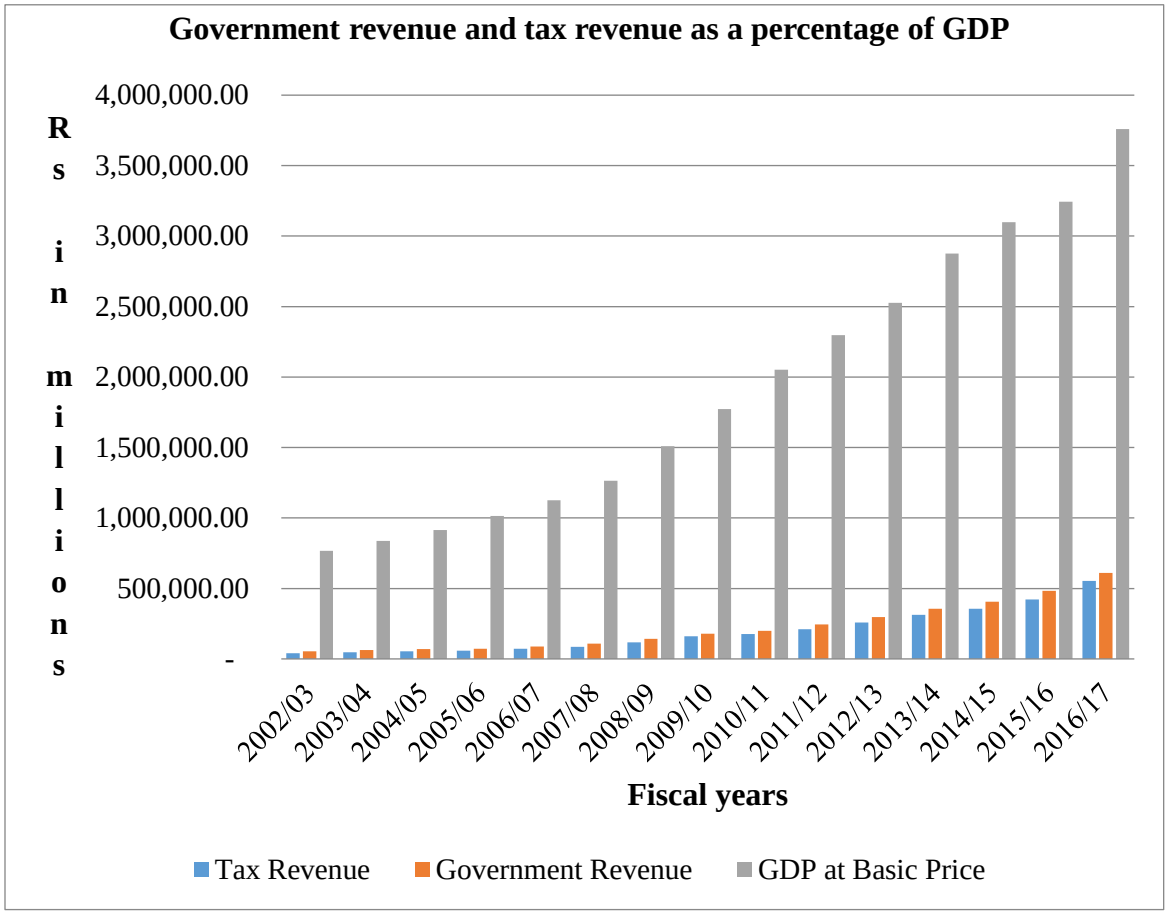
**Government revenue and tax revenue as a percentage of GDP**

**(Rs in million)**

| F/Y | Tax revenue | Government revenue | GDP at basic price | Share of government revenue to GDP | Share of tax revenue to GDP |
|---|---|---|---|---|---|
| 2002/03 | 40,896.00 | 54,538.90 | 767,582.00 | 7.11 | 5.33 |
| 2003/04 | 48,173.00 | 62,331.00 | 837,682.00 | 7.44 | 5.75 |
| 2004/05 | 54,104.70 | 70,122.70 | 914,088.00 | 7.67 | 5.92 |
| 2005/06 | 57,430.40 | 72,281.90 | 1,013,977.00 | 7.13 | 5.66 |
| 2006/07 | 71,126.70 | 87,712.10 | 1,126,300.00 | 7.79 | 6.32 |
| 2007/08 | 85,155.50 | 107,622.50 | 1,264,601.00 | 8.51 | 6.73 |
| 2008/09 | 117,051.90 | 143,474.50 | 1,508,850.00 | 9.51 | 7.76 |
| 2009/10 | 159,785.30 | 177,991.70 | 1,772,694.00 | 10.04 | 9.01 |
| 2010/11 | 177,227.20 | 198,375.90 | 2,052,228.00 | 9.67 | 8.64 |
| 2011/12 | 211,722.60 | 244,374.00 | 2,298,248.00 | 10.63 | 9.21 |
| 2012/13 | 259,214.90 | 296,021.10 | 2,525,886.00 | 11.72 | 10.26 |
| 2013/14 | 312,441.20 | 356,620.70 | 2,876,673.00 | 12.40 | 10.86 |
| 2014/15 | 355,955.70 | 405,866.40 | 3,099,248.00 | 13.10 | 11.49 |
| 2015/16 | 421,096.60 | 481,961.60 | 3,243,996.00 | 14.86 | 12.98 |
| 2016/17 | 553,867.00 | 609,180.00 | 3,759,190.00 | 16.21 | 14.73 |
| **Total** | **2,925,248.70** | **3,368,475.00** | **29,061,243.00** | | |
| Average | 195,016.58 | 224,565.00 | 1,937,416.20 | 10.25 | 8.71 |

***Source: Economic Survey, Ministry of Finance, F/Y 2011/12 to 2017/18***

**Figure 4.1.2**




***Source: Table 4.1.2***

### 4.1.3 Composition of direct tax revenue

Direct tax revenue consists of tax payable by individual and sole traders, tax payable by enterprises and corporations, taxes on investment and other income, SST on payroll, recurrent taxes on property, taxes on financial and capital transactions, registration tax and ownership certificate charge.

The table and figure show the trend of components of direct tax over past fifteen years. Tax payable by individual and sole traders has shown increasing trend in most of the F/Y and decreasing trend in some F/Y beginning from F/Y 2002/03 at 3,959.5 million to F/Y 2016/17 at 34,854.5 million which has overall increased by around eight times over time.

Tax payable by enterprises and corporation has shown increasing trend in most of the F/Y and decreasing trend in some F/Y beginning from F/Y 2002/03 at 4,852.3 million to F/Y 2016/17 at 92,648.4 million which has overall increased by around nineteen times over time. Taxes on investment and other income has shown increasing trend in most of the F/Y and decreasing trend in some F/Y beginning from F/Y 2002/03 at 1,029.8 million to F/Y 2016/17 at 17,343.1 million which has overall increased by around sixteen times over time.

Social security tax on payroll has shown increasing trend in F/Y beginning from F/Y 2011/12 at 709.8 million to F/Y 2016/17 at 4,136.9 million which has overall increased by around six times over time. Recurrent taxes on immovable property has shown increasing and decreasing trend in F/Y beginning from F/Y 2011/12 at 29.4 million to F/Y 2016/17 at 135.9 million which has overall increased by around five times over time. Taxes on financial and capital transactions has shown increasing trend in most of the F/Y and decreasing trend in some F/Y beginning from F/Y 2009/10 at 5,511 million to F/Y 2016/17 at 18,158.1 million which has overall increased by around three times over time. Registration tax has shown increasing trend in most of the F/Y and decreasing trend in some F/Y beginning from F/Y 2002/03 at 607.8 million to F/Y 2008/09 where it is highest at 5,223.3 million which has overall fluctuating trend. Ownership certificate charge has shown increasing trend in most of the F/Y and decreasing trend in some F/Y beginning from F/Y 2002/03 at 432.5 million to F/Y 2016/17 at 3,363.3 million which has overall increased by around eight times over time. Among the inter components of Direct Tax, Tax

payable by enterprises and corporations has on an average highest portion of direct tax at 27,541.63 million with weight of around 49 percent and recurrent taxes on immovable property has lowest portion of direct tax at 37.42 million with weight of less than one percent among the trend of past fifteen F/Y.

**Table 4.1.3**

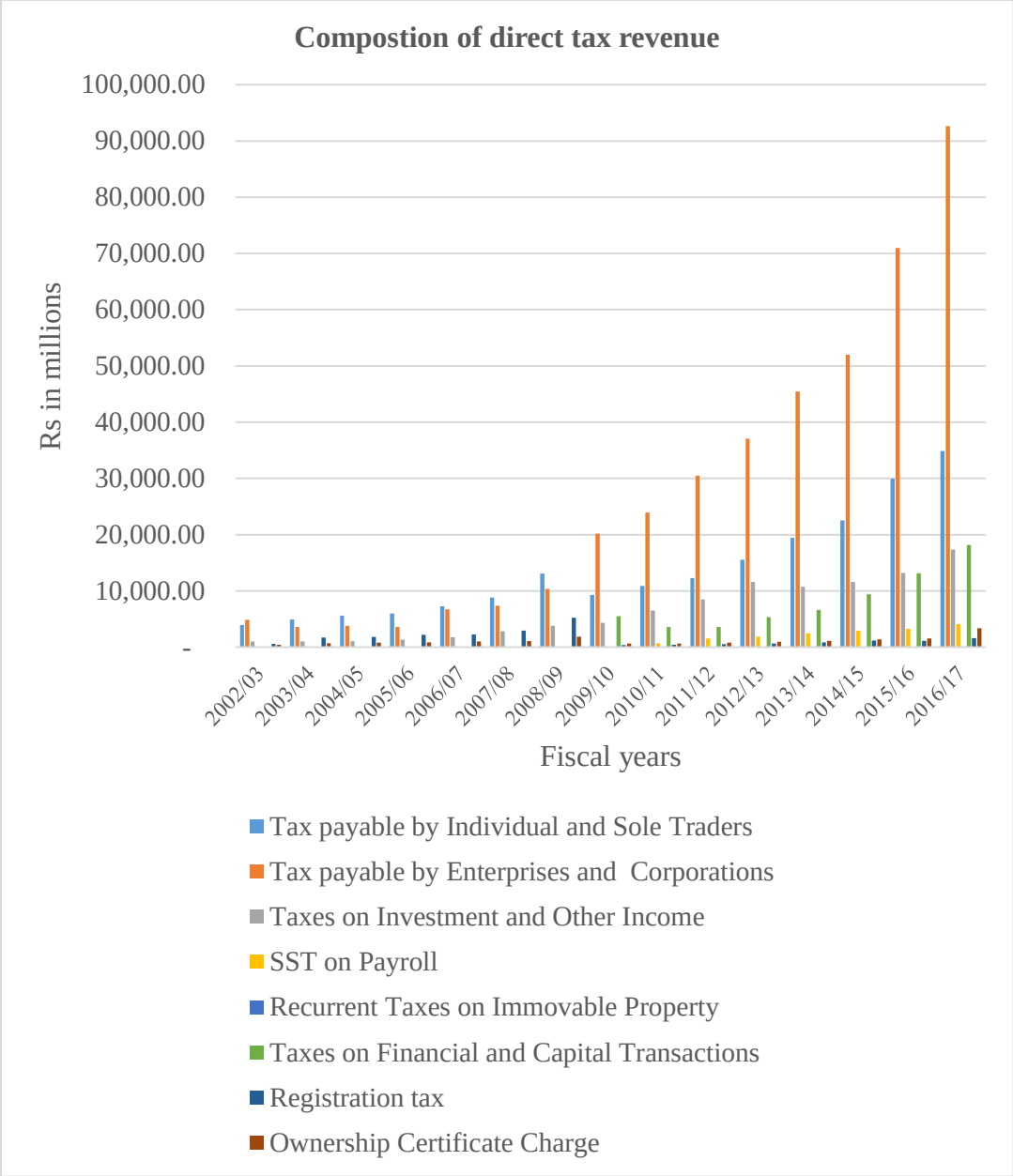
**Composition of direct tax revenue**

**(Rs in million)**

| F/Y | Tax payable by individual and sole traders | Tax payable by enterprises and corporations | Taxes on investment and other income | SST on payroll | Recurrent taxes on immovable property | Taxes on financial and capital tansactions | Registration tax | Ownership certificate charge | Total |
|---|---|---|---|---|---|---|---|---|---|
| 2002/03 | 3,959.50 | 4,852.30 | 1,029.80 | - | - | - | 607.80 | 432.50 | 10,881.90 |
| 2003/04 | 4,924.60 | 3,587.90 | 1,002.00 | - | - | - | 1,697.50 | 700.60 | 11,912.60 |
| 2004/05 | 5,602.20 | 3,800.20 | 1,063.70 | - | - | - | 1,799.20 | 806.50 | 13,071.80 |
| 2005/06 | 5,998.80 | 3,600.00 | 1,340.60 | - | - | - | 2,181.10 | 847.60 | 13,968.10 |
| 2006/07 | 7,242.30 | 6,736.80 | 1,752.70 | - | - | - | 2,253.50 | 995.00 | 18,980.30 |
| 2007/08 | 8,832.20 | 7,391.10 | 2,854.50 | - | - | - | 2,940.70 | 1,069.20 | 23,087.70 |
| 2008/09 | 13,073.10 | 10,383.20 | 3,790.10 | - | - | - | 5,223.30 | 1,850.00 | 34,319.70 |
| 2009/10 | 9,290.90 | 20,206.10 | 4,324.30 | - | - | 5,511.00 | 392.20 | 671.50 | 40,396.00 |
| 2010/11 | 10,918.90 | 23,931.10 | 6,500.30 | 709.80 | - | 3,572.50 | 427.00 | 660.70 | 46,720.30 |
| 2011/12 | 12,292.80 | 30,494.40 | 8,515.80 | 1,555.00 | 29.40 | 3,559.00 | 526.70 | 797.10 | 57,770.20 |
| 2012/13 | 15,541.50 | 37,067.20 | 11,578.00 | 1,880.60 | 3.70 | 5,336.40 | 623.40 | 981.80 | 73,012.60 |
| 2013/14 | 19,434.00 | 45,423.00 | 10,756.60 | 2,449.90 | 28.50 | 6,642.60 | 872.20 | 1,135.50 | 86,742.30 |
| 2014/15 | 22,557.80 | 52,033.70 | 11,574.10 | 2,925.80 | 21.90 | 9,377.50 | 1,185.00 | 1,413.40 | 101,089.20 |
| 2015/16 | 29,965.00 | 70,969.00 | 13,204.00 | 3,269.80 | 5.10 | 13,144.30 | 1,141.50 | 1,570.10 | 133,268.80 |
| 2016/17 | 34,854.50 | 92,648.40 | 17,343.10 | 4,136.90 | 135.90 | 18,158.10 | 1,598.50 | 3,363.30 | 172,238.70 |
| **Total** | **204,488.10** | **413,124.40** | **96,629.60** | **16,927.80** | **224.50** | **65,301.40** | **23,469.60** | **17,294.8** | **837,460.20** |
| Average | 13,632.54 | 27,541.63 | 6,441.97 | 2,418.26 | 37.42 | 8,162.68 | 1,564.64 | 1,152.99 | 55,830.68 |

***Source: Economic Survey, Ministry of Finance, F/Y 2011/12 to 2017/18***

**Figure 4.1.3**




***Source: Table 4.1.3***

### 4.1.4 Composition of indirect tax revenue

Indirect tax revenue consists of value added tax, excise, tax on specific services, taxes on use of goods and on permission to use goods, customs and import duty, taxes on exports, other taxes on international trade and transactions.

The table and figure show trend of components of indirect tax for past fifteen F/Y. VAT has shown increasing trend beginning from F/Y 2002/03 at 13,459.7 million to F/Y 2016/17 at 161,068.3 million which has overall increased by around twelve times over time.

Excise has shown increasing trend beginning from F/Y 2002/03 at 3,771.2 million to F/Y 2016/17 at 84,805.5 million which has overall increased by around twenty two times over time. Tax on specific services has shown increasing trend beginning from F/Y 2008/09 at 16.5 million to F/Y 2016/17 at 1,612 million which has overall increased by around ninety eight times over time. Tax on use of goods on permission to goods has shown increasing trend beginning from F/Y 2009/10 at 4,776.4 million to F/Y 2016/17 at 31,083.2 million which has overall increased by around six times over time. Customs and import duty has shown increasing trend beginning from F/Y 2002/03 at 10,391.9 million and a decreasing trend only in F/Y 2005/06 up to F/Y 2016/17 at 98,410.3 million which has overall increased by around nine times over time. Taxes on exports has shown increasing trend in most of the F/Y and decreasing trend in some F/Y beginning from F/Y 2002/03 at 492.6 million and highest at F/Y 2013/14 at 1066.5 million which has overall shown a fluctuating trend over time. Other taxes on international trade and transactions has shown increasing trend in most of the F/Y and decreasing trend in some F/Y beginning from F/Y 2002/03 at 1,898.7 million up to F/Y 2016/17 up at 4,523.3 million which has overall increased by around two times over time. Among the inter components of indirect tax, value added tax has on an average highest portion of indirect tax at 6,2139.1 million with weight of 44 percent and tax on exports has lowest portion of indirect tax at 565.87 million with weight of less than 1 percent among the trend of past fifteen F/Y.

**Table 4.1.4**

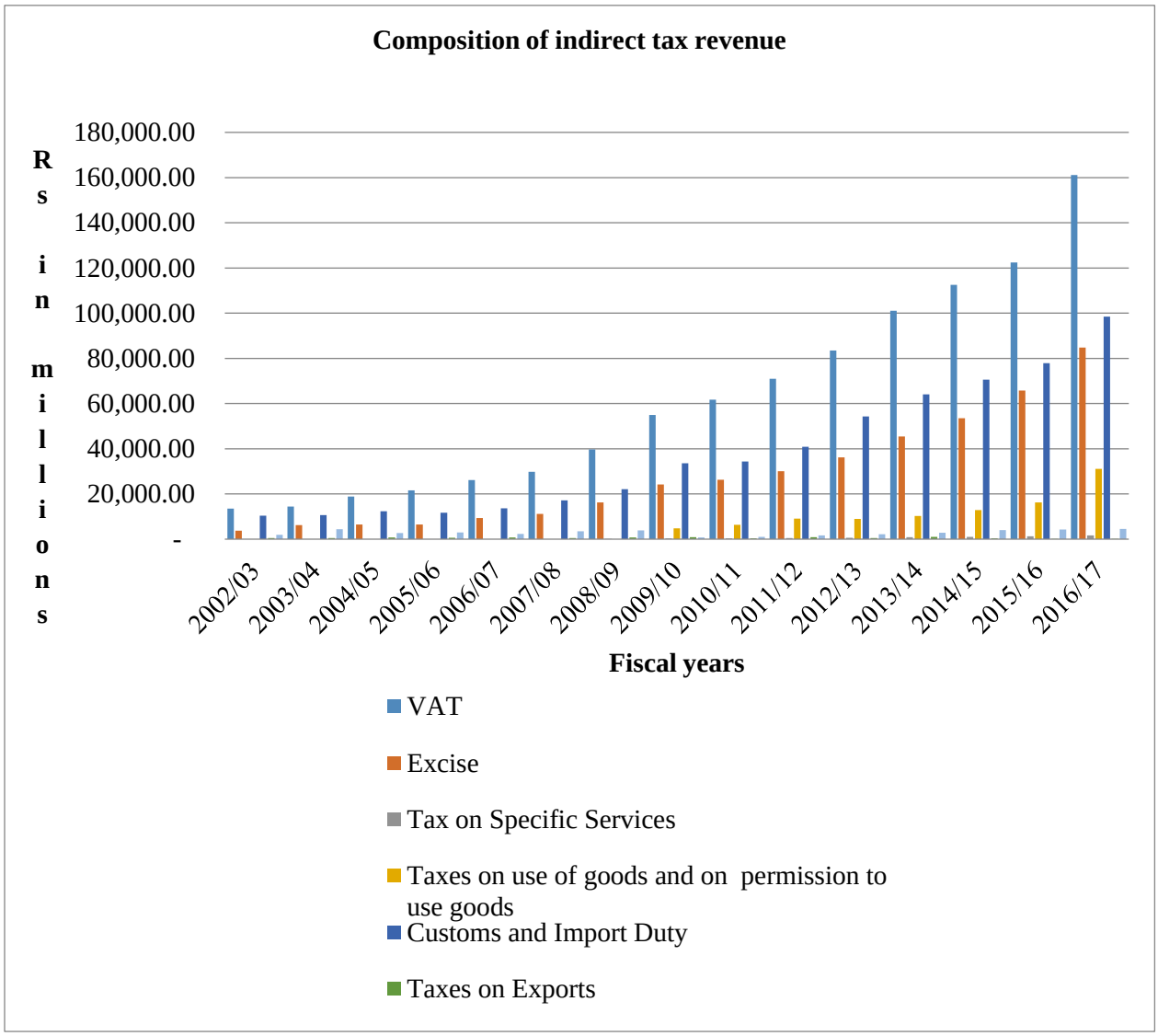
**Composition of indirect tax revenue**

**(Rs in million)**

| F/Y | VAT | Excise | Tax on specific services | Taxes on use of goods and on permission to use goods | Customs and import duty | Taxes on exports | Other taxes on international trade and transactions | Total |
|---|---|---|---|---|---|---|---|---|
| 2002/03 | 13,459.70 | 3,771.20 | - | - | 10,391.90 | 492.60 | 1,898.70 | 30,014.10 |
| 2003/04 | 14,478.90 | 6,226.70 | - | - | 10,666.90 | 527.10 | 4,360.80 | 36,260.40 |
| 2004/05 | 18,885.40 | 6,445.90 | - | - | 12,299.10 | 697.90 | 2,704.60 | 41,032.90 |
| 2005/06 | 21,610.70 | 6,507.60 | - | - | 11,744.60 | 625.60 | 2,973.80 | 43,462.30 |
| 2006/07 | 26,095.60 | 9,343.20 | - | - | 13,626.10 | 708.70 | 2,372.80 | 52,146.40 |
| 2007/08 | 29,815.70 | 11,189.60 | - | - | 17,128.20 | 445.60 | 3,488.70 | 62,067.80 |
| 2008/09 | 39,700.90 | 16,220.90 | 16.50 | - | 22,056.60 | 796.40 | 3,939.90 | 82,731.20 |
| 2009/10 | 54,920.90 | 24,147.60 | 325.50 | 4,776.40 | 33,544.40 | 915.50 | 759.00 | 119,389.30 |
| 2010/11 | 61,663.60 | 26,338.50 | 408.90 | 6,382.40 | 34,314.00 | 358.10 | 1,041.40 | 130,506.90 |
| 2011/12 | 70,930.40 | 30,016.10 | 490.20 | 9,124.30 | 40,905.90 | 861.50 | 1,623.20 | 153,951.60 |
| 2012/13 | 83,418.40 | 36,234.70 | 655.30 | 8,962.10 | 54,327.90 | 439.10 | 2,164.80 | 186,202.30 |
| 2013/14 | 101,104.60 | 45,412.60 | 873.50 | 10,327.70 | 64,125.40 | 1,066.50 | 2,788.60 | 225,698.90 |
| 2014/15 | 112,521.80 | 53,538.20 | 1,031.90 | 12,933.30 | 70,526.70 | 314.60 | 4,000.00 | 254,866.50 |
| 2015/16 | 122,411.90 | 65,776.40 | 1,284.10 | 16,196.30 | 77,822.20 | 113.70 | 4,223.20 | 287,827.80 |
| 2016/17 | 161,068.30 | 84,805.50 | 1,612.00 | 31,083.20 | 98,410.30 | 125.10 | 4,523.30 | 381,627.70 |
| **Total** | **932,086.80** | **425,974.70** | **6,697.90** | **99,785.70** | **571,890.20** | **8,488.00** | **42,862.80** | **2,087,786.10** |
| Average | 62,139.12 | 28,398.31 | 744.21 | 12,473.21 | 38,126.01 | 565.87 | 2,857.52 | 139,185.74 |

***Source: Economic Survey, Ministry of Finance, F/Y 2011/12 to 2017/18***

**Figure 4.1.4**




***Source: Table 4.1.4***

### 4.1.5 Contribution of direct tax to GDP, government revenue and tax revenue

Direct tax is already mentioned in table and figure 4.1.3, GDP is already mentioned in table and figure 4.1.2, government revenue and tax revenue is already mentioned in table and figure 4.1.1. Ratio of direct tax to GDP, government revenue and tax revenue is calculated. The trend of direct tax, GDP, government revenue and tax revenue for past fifteen F/Y is already mentioned in Table 4.1.3, 4.1.2 and 4.1.1 respectively. Ratio of direct tax to GDP has shown overall increasing trend from F/Y 2002/03 at 1.42 percent up to F/Y 2016/2017 at 4.58 percent with a decreasing trend in F/Y 2005/06 only. On an average direct tax comprises of 2.42 percent of GDP. Ratio of direct tax to government revenue has shown overall increasing trend from F/Y 2002/03 at 19.95 percent up to F/Y 2016/2017 at 28.27 percent with a decreasing trend in F/Y 2005/06 and 2006/07. On an average direct tax comprises of 22.92 percent of government revenue. Ratio of direct tax to tax revenue has shown overall increasing trend from F/Y 2002/03 at 26.61 percent up to F/Y 2016/17 at 31.1 percent with a decreasing trend in F/Y 2004/05, 2009/10, 2013/14. On an average direct tax comprises of 27.26 percent of tax revenue.

**Table 4.1.5**

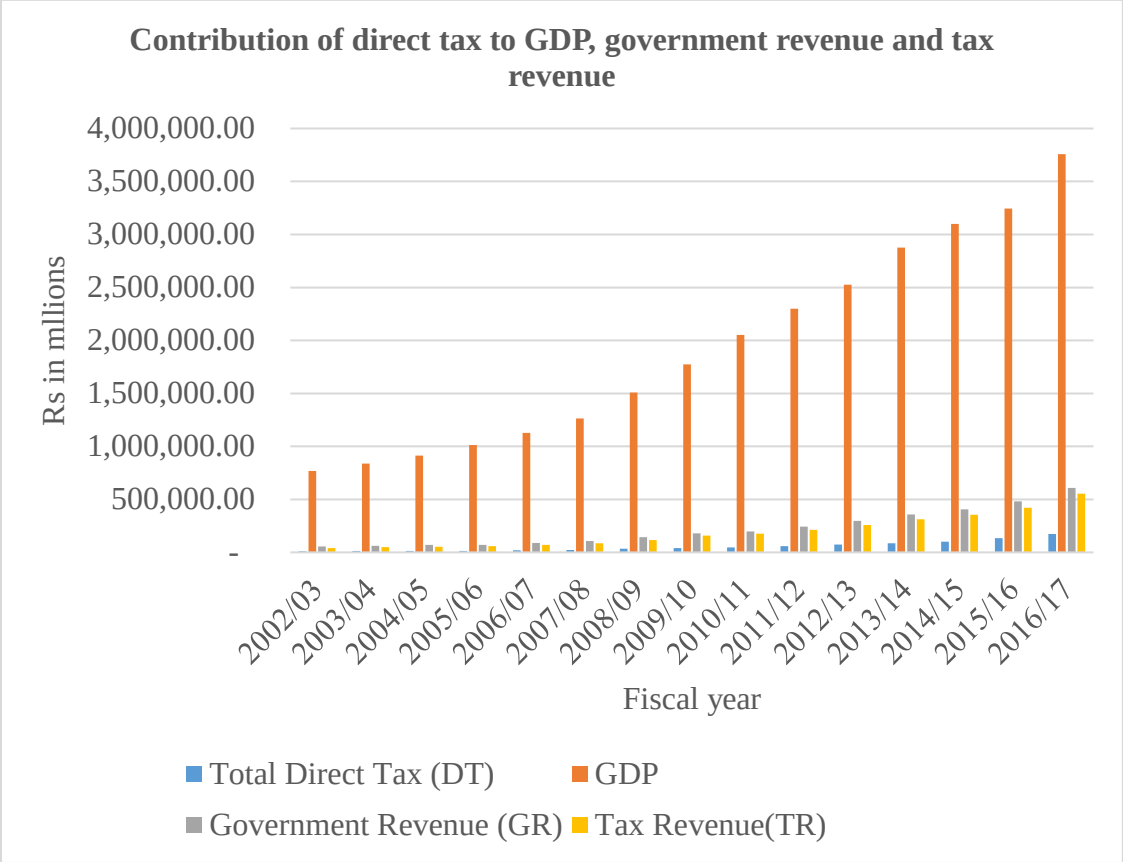
**Contribution of direct tax to GDP, government revenue and tax revenue**

**Rs in million**

| F/Y | Direct tax (DT) | GDP | Government revenue (GR) | Tax revenue(TR) | Percentage of DT to GDP | Percentage of DT to GR | Percentage of DT to TR |
|---|---|---|---|---|---|---|---|
| 2002/03 | 10,881.90 | 767,582.00 | 54,538.90 | 40,896.00 | 1.42 | 19.95 | 26.61 |
| 2003/04 | 11,912.60 | 837,682.00 | 62,331.00 | 48,173.00 | 1.42 | 19.11 | 24.73 |
| 2004/05 | 13,071.80 | 914,088.00 | 70,122.70 | 54,104.70 | 1.43 | 18.64 | 24.16 |
| 2005/06 | 13,968.10 | 1,013,977.00 | 72,281.90 | 57,430.40 | 1.38 | 19.32 | 24.32 |
| 2006/07 | 18,980.30 | 1,126,300.00 | 87,712.10 | 71,126.70 | 1.69 | 21.64 | 26.69 |
| 2007/08 | 23,087.70 | 1,264,601.00 | 107,622.50 | 85,155.50 | 1.83 | 21.45 | 27.11 |
| 2008/09 | 34,319.70 | 1,508,850.00 | 143,474.50 | 117,051.90 | 2.27 | 23.92 | 29.32 |
| 2009/10 | 40,396.00 | 1,772,694.00 | 177,991.70 | 159,785.30 | 2.28 | 22.70 | 25.28 |
| 2010/11 | 46,720.30 | 2,052,228.00 | 198,375.90 | 177,227.20 | 2.28 | 23.55 | 26.36 |
| 2011/12 | 57,770.20 | 2,298,248.00 | 244,374.00 | 211,722.60 | 2.51 | 23.64 | 27.29 |
| 2012/13 | 73,012.60 | 2,525,886.00 | 296,021.10 | 259,214.90 | 2.89 | 24.66 | 28.17 |
| 2013/14 | 86,742.30 | 2,876,673.00 | 356,620.70 | 312,441.20 | 3.02 | 24.32 | 27.76 |
| 2014/15 | 101,089.20 | 3,099,248.00 | 405,866.40 | 355,955.70 | 3.26 | 24.91 | 28.40 |
| 2015/16 | 133,268.80 | 3,243,996.00 | 481,961.60 | 421,096.60 | 4.11 | 27.65 | 31.65 |
| 2016/17 | 172,238.70 | 3,759,190.00 | 609,180.00 | 553,867.00 | 4.58 | 28.27 | 31.10 |
| **Total** | **837,460.20** | **29,061,243.00** | **3,368,475.00** | **2,925,248.70** | | | |
| Average | 55,830.68 | 1,937,416.20 | 224,565.00 | 195,016.58 | 2.42 | 22.92 | 27.26 |

***Source: Table 4.1.1, Table 4.1.2 and Table 4.1.3***

**Figure 4.1.5**




***Source: Table 4.1.5***

### 4.1.6 Contribution of indirect tax to GDP, government revenue and tax revenue

Indirect tax is already mentioned in table and figure 4.1.4, GDP is already mentioned in table and figure 4.1.2, government revenue and tax revenue is already mentioned in table and figure 4.1.1. Ratio of indirect tax to GDP, government revenue and tax revenue is calculated.

The trend of indirect tax, GDP, government revenue and tax revenue for past fifteen F/Y is already mentioned in table 4.1.4, 4.1.2 and 4.1.1 respectively. Ratio of indirect tax to GDP has shown overall increasing trend from F/Y 2002/03 at 3.91 percent up to F/Y 2016/2017 at 10.15 percent with a decreasing trend in F/Y 2005/06 and 2010/11. On an average indirect tax comprises of 6.29 percent of GDP. Ratio of indirect tax to government revenue has shown increasing as well as decreasing trend from F/Y 2002/03 at 55.03 percent up to F/Y 2016/2017 at 62.65 percent. It has shown decreasing trend on F/Y 2006/07 to 2008/09 and again on 2010/11 to 2012/13. On an average indirect tax comprises of 60.92 percent of government revenue. Ratio of indirect tax to tax revenue has shown increasing as well as decreasing trend from F/Y 2002/03 at 73.39 percent up to F/Y 2016/2017 at 68.9 percent. It was highest on F/Y 2004/05 at 75.84 percent and lowest on F/Y 2015/16 at 68.35 percent. It has shown decreasing trend on F/Y 2006/07 to 2008/09, F/Y 2010/11 to 2012/13 and F/Y 2014/15 to 2015/16. On an average indirect tax comprises of 72.74 percent of tax revenue.

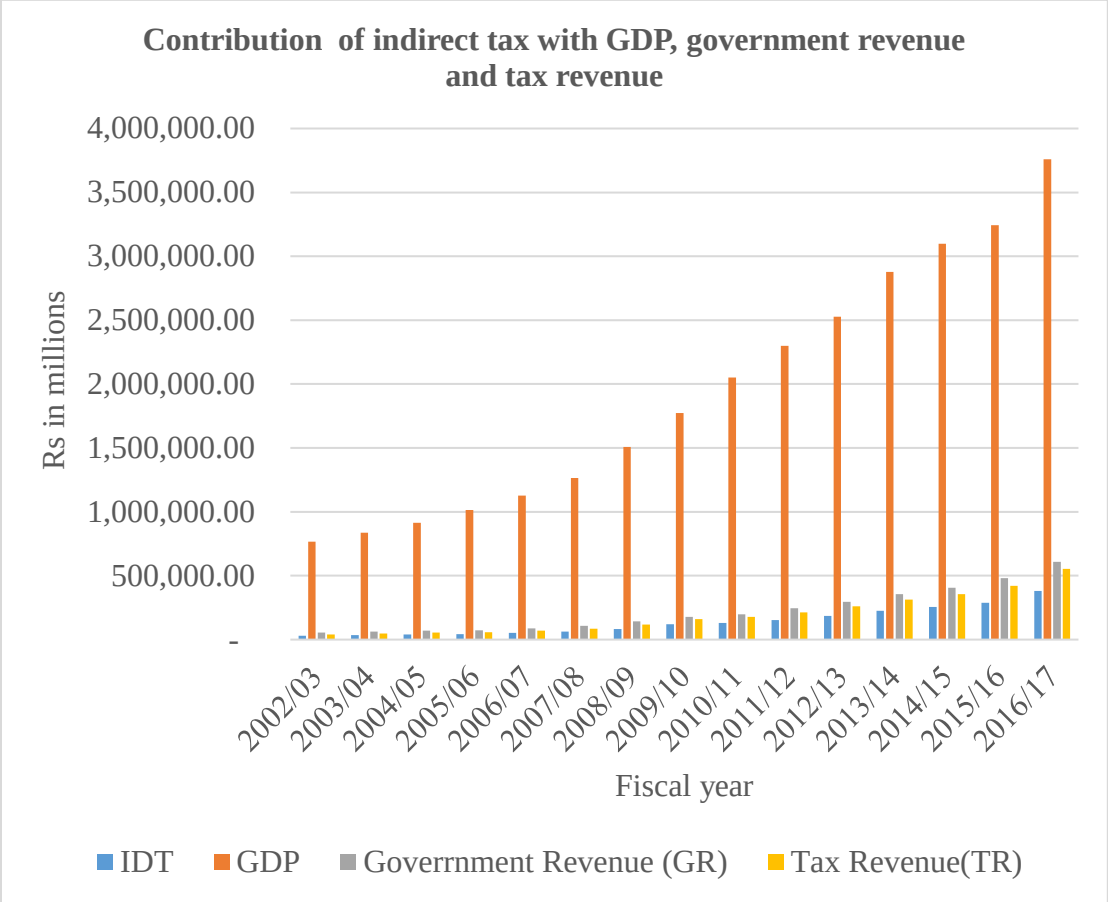
**Table 4.1.6**

**Contribution of indirect tax to GDP, government revenue and tax revenue**

| F/Y | Indirect tax(IDT) | GDP | Government revenue (GR) | Tax revenue(TR) | Percentage of IDT to GDP | Percentage of IDT to GR | Percentage of IDT to TR |
|---|---|---|---|---|---|---|---|
| 2002/03 | 30,014.10 | 767,582.00 | 54,538.90 | 40,896.00 | 3.91 | 55.03 | 73.39 |
| 2003/04 | 36,260.40 | 837,682.00 | 62,331.00 | 48,173.00 | 4.33 | 58.17 | 75.27 |
| 2004/05 | 41,032.90 | 914,088.00 | 70,122.70 | 54,104.70 | 4.49 | 58.52 | 75.84 |
| 2005/06 | 43,462.30 | 1,013,977.00 | 72,281.90 | 57,430.40 | 4.29 | 60.13 | 75.68 |
| 2006/07 | 52,146.40 | 1,126,300.00 | 87,712.10 | 71,126.70 | 4.63 | 59.45 | 73.31 |
| 2007/08 | 62,067.80 | 1,264,601.00 | 107,622.50 | 85,155.50 | 4.91 | 57.67 | 72.89 |
| 2008/09 | 82,731.20 | 1,508,850.00 | 143,474.50 | 117,051.90 | 5.48 | 57.66 | 70.68 |
| 2009/10 | 119,389.30 | 1,772,694.00 | 177,991.70 | 159,785.30 | 6.73 | 67.08 | 74.72 |
| 2010/11 | 130,506.90 | 2,052,228.00 | 198,375.90 | 177,227.20 | 6.36 | 65.79 | 73.64 |
| 2011/12 | 153,951.60 | 2,298,248.00 | 244,374.00 | 211,722.60 | 6.70 | 63.00 | 72.71 |
| 2012/13 | 186,202.30 | 2,525,886.00 | 296,021.10 | 259,214.90 | 7.37 | 62.90 | 71.83 |
| 2013/14 | 225,698.90 | 2,876,673.00 | 356,620.70 | 312,441.20 | 7.85 | 63.29 | 72.24 |
| 2014/15 | 254,866.50 | 3,099,248.00 | 405,866.40 | 355,955.70 | 8.22 | 62.80 | 71.60 |
| 2015/16 | 287,827.80 | 3,243,996.00 | 481,961.60 | 421,096.60 | 8.87 | 59.72 | 68.35 |
| 2016/17 | 381,627.70 | 3,759,190.00 | 609,180.00 | 553,867.00 | 10.15 | 62.65 | 68.90 |
| **Total** | **2,087,786.10** | **29,061,243.00** | **3,368,475.00** | **2,925,248.70** | | | |
| Average | 139,185.74 | 1,937,416.20 | 224,565.00 | 195,016.58 | 6.29 | 60.92 | 72.74 |

***Source: Table 4.1.1, Table 4.1.2 and Table 4.1.4***

**Figure 4.1.6**




***Source: Table 4.1.6***

### 4.1.7 Structure of resource gap

Total government expenditure consists of current expenditure, capital expenditure and principal payment expenditure. Total government income consists of revenue, foreign grants and difference amount. Resource gap is the measure of gap which occurs when the total government expenditure exceeds total government income.

The table and figure shows the trend of resource gap due to total government expenditure and total government income over past fifteen F/Y. Total government expenditure has been showing increasing trend from F/Y 2002/03 at 84,006.1 million to F/Y 2016/17 at 727,364 million which has increased by around 8.65 times over fifteen F/Y. On an average, total government expenditure has been 266,894.15 million. Total government income has been showing increasing trend from F/Y 2002/03 at 67,568.9 million to F/Y 2016/17 at 644,530 million which has increased by around 9.5 times over fifteen F/Y. On an average, total government income has been 253454.56 million. Resource gap has been showing increasing as well as decreasing trend. On F/Y 2002/03 it is 16,437.2 million and has decreased on F/Y 2003/04 to 15,828.2 million. From F/Y 2004/05 it has again increased up to F/Y 2008/09 at 49,804.7. Again, on F/Y 2009/10 it has drastically reduced to 10,569.48 million and increased on F/Y 2011/12 to 13,196.91 million and again decreased on F/Y 2012/13 to 7053.92 million. There is no resource gap from F/Y 2012/13 to 2015/16, instead there is resource surplus, which is a good sign to the economy of country. Again on F/Y 2016/17 resource gap of 82,834 million is obtained which is highest gap over all fifteen F/Y.

**Table 4.1.7**

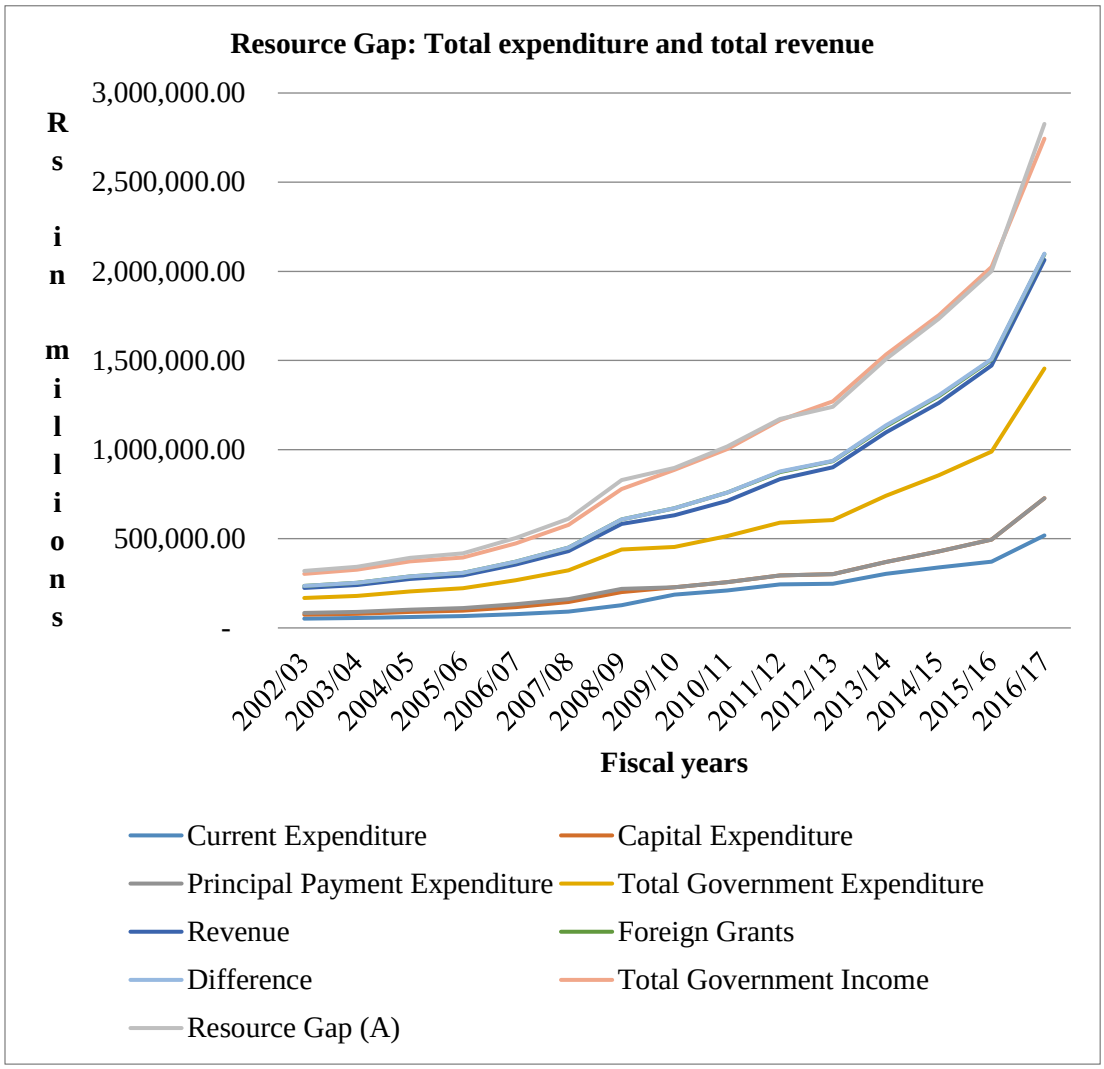
**Resource gap: Total expenditure and total revenue**

**(Rs in million)**

| F/Y | Current expenditure | Capital expenditure | Principal payment expenditure | Total government expenditure | Revenue | Foreign grants | Difference | Total government income | Resource gap (A) |
|---|---|---|---|---|---|---|---|---|---|
| 2002/03 | 52,090.50 | 22,356.10 | 9,559.50 | 84,006.10 | 56,229.80 | 11,339.10 | - | 67,568.90 | 16,437.20 |
| 2003/04 | 55,552.10 | 23,095.60 | 10,794.90 | 89,442.60 | 62,331.00 | 11,283.40 | - | 73,614.40 | 15,828.20 |
| 2004/05 | 61,686.40 | 27,340.70 | 13,533.30 | 102,560.40 | 70,122.70 | 14,391.20 | - | 84,513.90 | 18,046.50 |
| 2005/06 | 67,017.80 | 29,606.60 | 14,264.80 | 110,889.20 | 72,282.10 | 13,827.50 | - | 86,109.60 | 24,779.60 |
| 2006/07 | 77,122.40 | 39,729.90 | 16,752.30 | 133,604.60 | 87,712.10 | 15,800.80 | - | 103,512.90 | 30,091.70 |
| 2007/08 | 91,446.90 | 53,516.10 | 16,386.90 | 161,349.90 | 107,622.50 | 20,320.70 | - | 127,943.20 | 33,406.70 |
| 2008/09 | 127,738.90 | 73,089.00 | 18,834.10 | 219,662.00 | 143,474.50 | 26,382.80 | - | 169,857.30 | 49,804.70 |
| 2009/10 | 186,597.55 | 40,509.77 | - | 227,107.32 | 177,991.87 | 38,545.97 | - | 216,537.84 | 10,569.48 |
| 2010/11 | 210,167.73 | 47,327.68 | - | 257,495.41 | 198,376.32 | 45,922.18 | - | 244,298.50 | 13,196.91 |
| 2011/12 | 243,460.01 | 51,390.72 | - | 294,850.72 | 244,374.10 | 40,810.28 | 2,612.42 | 287,796.80 | 7,053.92 |
| 2012/13 | 247,455.47 | 54,598.43 | - | 302,053.90 | 296,021.15 | 35,229.81 | 1,921.19 | 333,172.15 | (31,118.25) |
| 2013/14 | 303,531.75 | 66,694.73 | - | 370,226.47 | 356,620.78 | 33,960.17 | 5,734.22 | 396,315.16 | (26,088.69) |
| 2014/15 | 339,407.60 | 88,843.51 | - | 428,251.11 | 405,866.51 | 36,374.23 | 6,090.46 | 448,331.21 | (20,080.09) |
| 2015/16 | 371,297.09 | 123,251.45 | - | 494,548.54 | 481,961.65 | 32,477.50 | 3,277.40 | 517,716.55 | (23,168.02) |
| 2016/17 | 518,616.00 | 208,748.00 | - | 727,364.00 | 609,180.00 | 31,932.00 | 3,418.00 | 644,530.00 | 82,834.00 |
| **Total** | **2,953,188.19** | **950,098.28** | **100,125.8** | **4,003,412.28** | **3,370,167.09** | **408,597.63** | **23,053.69** | **3,801,818.41** | **201,593.86** |
| Average | 196,879.21 | 63,339.89 | 6,675.05 | 266,894.15 | 224,677.81 | 27,239.84 | 1,536.91 | 253,454.56 | 13,439.59 |

***Source: Economic Survey, Ministry of Finance, F/Y 2011/12 to 2017/18***

**Figure 4.1.7**




***Source: Table 4.1.7***

### 4.1.8 Co-relation analysis

Co-relation between GDP at basic price and nationwide tax revenue has been calculated according to table in *Annexure 4.1.8.1*

Let GDP at basic price and tax revenue be represented by variable (X) and (Y) respectively.

Here, the co-relation coefficient between (X) and (Y) is (r) = 0.981. This means correlation is strong and the variables are positively co-related. Thus, the correlation is significant at 0.01 level of significance. (*Annexure 4.1.8.1)*

Similarly, also we have

Co-relation between government revenue at basic price and nationwide tax revenue has been calculated according to table in *Annexure 4.1.8.2*

Let government revenue and tax revenue be represented by variable (X) and (Y) respectively.

Then co-relation between (X) and (Y) is (r) = 1. This means correlation is strong and the variables are positively co-related. Thus, the correlation is significant at 0.01 level of significance. *(Annexure 4.1.8.2)*

### 4.1.9 Multiple regression analysis

Multiple regression of government revenue with direct tax and indirect tax has been calculated according to table in *Annexure 4.1.9*

We have equation of multiple regression,

$Y = a + b_1X_1 + b_2X_2$

Where,

Y= Government revenue

a = Y intercept

b = Slope coefficient

$X_1$ =Direct tax

$X_2$ = Indirect tax

According to (*Annexure 4.1.9)*, the correlation value of R is 1. It means the combined correlation between direct tax and indirect tax with government revenue is 1 which implies that the independent variables are strongly and positively correlated with government revenue. Coefficient of determination R square is a statistical measure of closeness of data fitted in regression line. R square and adjusted R square is obtained 0.999. It implies the model explains 99.99 percent variability around its mean. In general, the higher the R-squared, the better the model fits the data.

Putting the values of constant and coefficients in the regression equation

$Y = 11479.57 + 1.244b_1 + 1.032b_2$

From the analysis of data of past fifteen years, the Y intercept 'a' is 11479.57 which indicates that the value of government revenue becomes 11,479.57 million rupees when all two independent variables, direct tax and indirect tax are zero. When direct tax increases by one time, government revenue increases by 1.244 times. Similarly, when indirect tax increases by one time, government revenue increases by 1.032 times.

The t- value of direct tax and indirect tax are 4.855 and 8.865 respectively with p-value less than 0.05 at 5 percent level of significance. It shows that the overall independent variables are significantly related to dependent variable thus, the alternative hypothesis and accepted whereas, null hypothesis is rejected.

The calculated F-value is 7271.364 at 0.000 significance which shows the calculated F is greater than tabulated F. It shows that null hypothesis is rejected and alternative hypothesis is accepted at 5 percent level of significance.

### 4.1.10 Time series analysis

Time series analysis of tax revenue has been calculated according to table and figure in *Annexure 4.1.10*

Tax revenue from F/Y 2002/03 to 2016/17 is taken as dependent variable (*Y*) and time from fiscal year 2002/03 to 2016/17 is taken as independent variable(*X*).

Thus, the time series shows that nationwide tax revenue shall be 590,811.33 million rupees in five years later in F/Y 2021/25 if the trend of past fifteen years continues in this way. *(Annexure 4.1.10)*

### 4.2 Tax contribution of Nepal Telecom towards GDP and government revenue

Contribution of Nepal Telecom from various taxes has been analyzed and presented. Then, the total tax contribution is analyzed with GDP and government revenue using advanced statistical tools like co-relation, regression and times series analysis.

#### 4.2.1 Structure of advance income tax and income tax liability

Advance income tax consists : first of all the installment of corporate tax which was paid as forty percent of estimated annual turnover on the month of January, thirty percent of estimates annual turnover on the month of April and last thirty percent of estimated annual turnover on the month of July; secondly the TDS deducted by parties while making payment to Nepal Telecom, it is mainly lease line TDS deducted by parties and TDS deducted by banks on interest income of Nepal Telecom which is the major constituent of advance income tax around eighty percent. Income tax liability is the corporate tax paid by Nepal Telecom. Income tax liability is calculated after deducting advance income tax balance. If balance of advance income tax is greater than income tax liability then the result is net tax asset. If balance of advance income tax is lower than income tax liability then the result is net tax liability.

The table and figure shows the trend of income tax liability and advance income tax with the result of net tax asset or net tax liability for past ten F/Y. Income tax liability has been showing increasing as well as decreasing trend from F/Y 2007/08 at 3,130.2 million to F/Y 2016/17 at 5,734.01 million whereas decreasing trend on 2011/12, 2012/13 and 2015/16 with highest on F/Y 2014/15 at 6,101.39 million. Advance income tax has been showing increasing as well as decreasing trend from F/Y 2007/08 at 2,838 million to F/Y 2016/17 at 5,785.42 million with highest on F/Y 2011/12 at 5,819.45 million. Thus advance income tax has shown overall fluctuating trend over ten F/Y. Net tax asset has been obtained in most of the F/Y other than F/Y 2007/08 and 2014/15 over past ten F/Y. On the contrary, net tax liability has not been obtained in most of the F/Y except F/Y 2007/08 and 2014/15 over past ten F/Y. On an average, advance income tax is 4800.93 million which has exceeded income tax liability which is 4591.6 million.

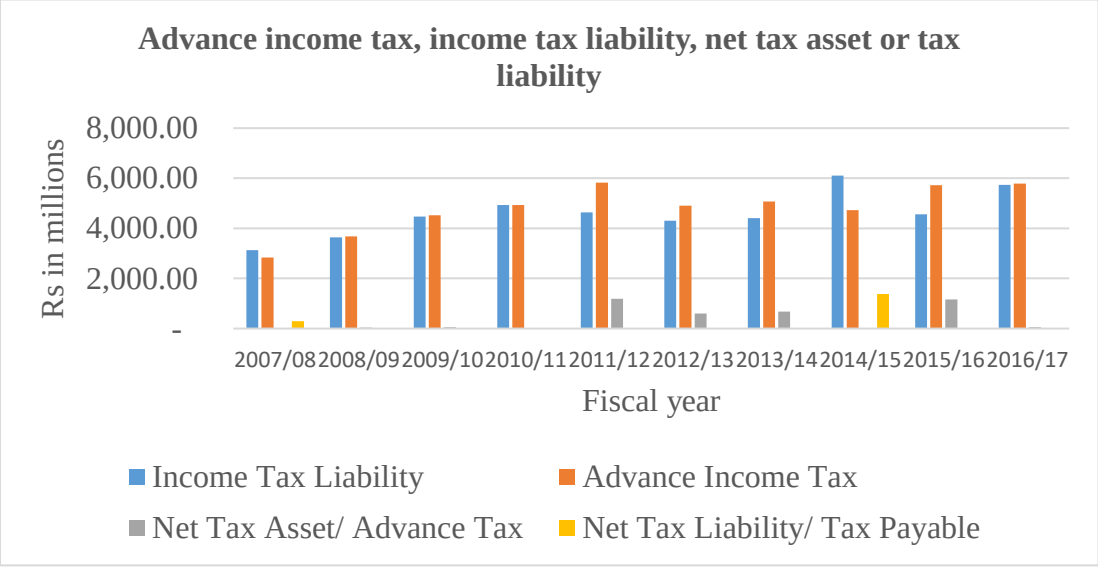
**Table 4.2.1 Advance income tax, income tax liability, net tax asset or tax liability**

**Rs in million**

| F/Y | Income tax liability | Advance income tax | Net tax asset/ advance tax | Net tax liability/ tax payable |
|---|---|---|---|---|
| 2007/08 | 3,130.32 | 2,838.00 | - | 292.32 |
| 2008/09 | 3,642.59 | 3,678.23 | 35.64 | - |
| 2009/10 | 4,467.92 | 4,516.86 | 48.94 | - |
| 2010/11 | 4,927.43 | 4,933.52 | 6.09 | - |
| 2011/12 | 4,634.54 | 5,819.45 | 1,184.91 | - |
| 2012/13 | 4,310.97 | 4,906.52 | 595.55 | - |
| 2013/14 | 4,402.58 | 5,075.94 | 673.35 | - |
| 2014/15 | 6,101.39 | 4,725.90 | - | 1,375.48 |
| 2015/16 | 4,564.29 | 5,728.50 | 1,164.20 | - |
| 2016/17 | 5,734.01 | 5,785.42 | 51.41 | - |
| **Total** | **45,916.04** | **48,008.35** | **3,760.11** | **1,667.81** |
| Average | 4,591.60 | 4,800.83 | 376.01 | 166.78 |

***Source: Annual report of Nepal Telecom, F/Y 2007/08 to 2016/17***

**Figure 4.2.1**




***Source: Table 4.2.1***

### 4.2.2 Net income tax liability considering deferred tax of Nepal Telecom

Deferred tax is calculated when the written down value of fixed assets calculated as per accounting policies followed in an organization is different from written down value of fixed asset calculated as per income tax act. The effect of difference in accounting policies and income tax act is mentioned as deferred tax asset or deferred tax liability. Net income tax liability after deducting deferred tax asset is considered as final tax liability. However, if there is deferred tax liability then it is added to income tax liability for determining final tax liability.

**Table 4.2.2**

**Net income tax liability considering deferred tax of Nepal Telecom**

**(Rs in million)**

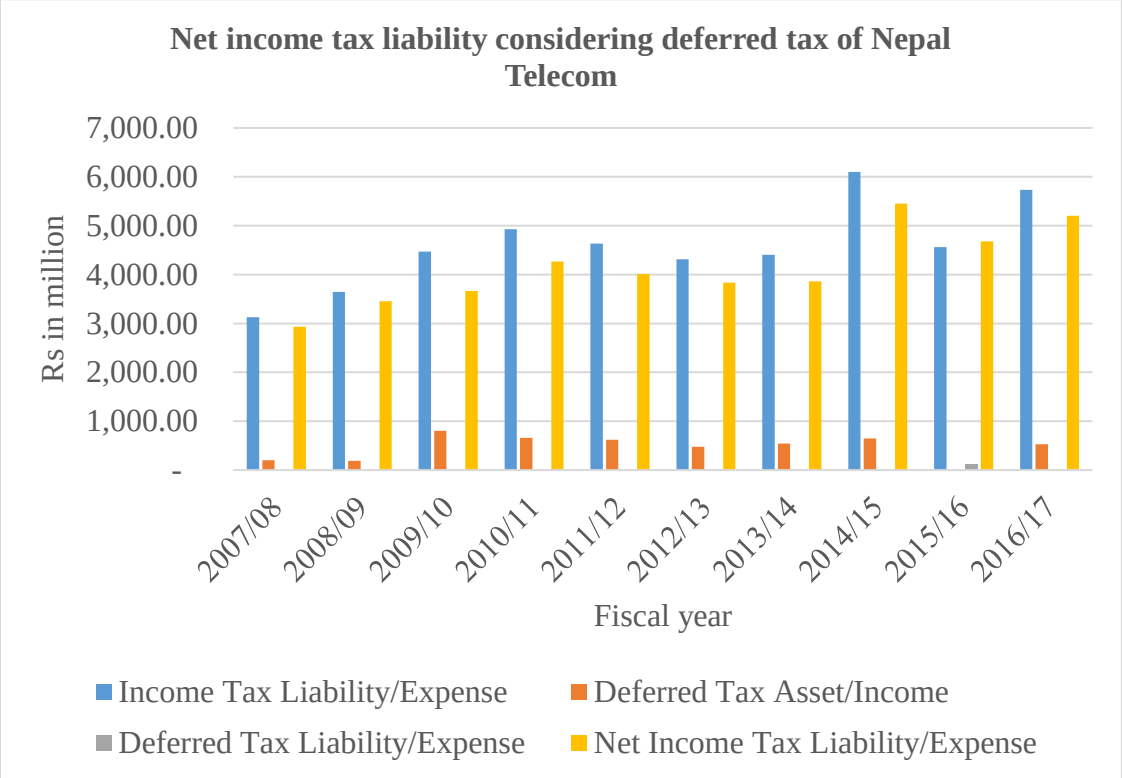
| F/Y | Income Tax liability/expense | Deferred tax asset/income | Deferred tax liability/expense | Net income tax liability/expense |
|---|---|---|---|---|
| 2007/08 | 3,130.32 | 201.76 | - | 2,928.55 |
| 2008/09 | 3,642.59 | 186.62 | - | 3,455.97 |
| 2009/10 | 4,467.92 | 801.98 | - | 3,665.94 |
| 2010/11 | 4,927.43 | 658.09 | - | 4,269.34 |
| 2011/12 | 4,634.54 | 622.62 | - | 4,011.92 |
| 2012/13 | 4,310.97 | 479.12 | - | 3,831.86 |
| 2013/14 | 4,402.58 | 542.09 | - | 3,860.49 |
| 2014/15 | 6,101.39 | 647.83 | - | 5,453.56 |
| 2015/16 | 4,564.29 | - | 115.63 | 4,679.92 |
| 2016/17 | 5,734.01 | 530.92 | - | 5,203.09 |
| **Total** | **45,916.04** | **4,671.03** | **115.63** | **41,360.64** |
| Average | 4,591.60 | 467.10 | 11.56 | 4,136.06 |

***Source: Annual Report of Nepal Telecom, F/Y 2007/08 to 2016/17***

The table and figure shows trend of income tax liability and deferred tax asset in past ten F/Y from F/Y 2007/08 to 2016/17. Before F/Y 2007/08 deferred tax was not taken to

account and not presented in annual report of Nepal Telecom. Income tax liability has been showing increasing as well as decreasing trend from F/Y 2007/08 at 3,130.32 million to F/Y 2016/17 at 5,734.01 million whereas decreasing trend on F/Y 2011/12, 2012/13 and 2015/16 with highest on F/Y 2014/15 at 6,101.39 million. Deferred tax asset has been showing increasing as well as decreasing trend from F/Y 2007/08 at 201.76 million to F/Y 2016/17 at 530.92 million whereas decreasing trend on F/Y 2008/09, 2010/11 to 2012/13 with highest on F/Y 2014/15 at 647.83 million. Deferred tax liability is available on F/Y 2015/16 only at 115.63 and nil on other F/Y. On an average, income tax liability is 4591.6 million and exceeds deferred tax asset which is 467.1 million.

**Figure 4.2.2**




***Source: Table 4.2.2***

### 4.2.3 Contribution of Nepal Telecom to government from various taxes and fees

Nepal Telecom contributes various taxes and fees to government which is a significant portion of government revenue. Among them advance income tax, valued added tax, telecommunication fees, ownership fees, custom duty, royalty and rural telecommunication development fund, dividend, property and vehicle tax, value receipt are the components which are presented in annual report of Nepal Telecom.

The table and figure shows trend of advance income tax, valued added tax, telecommunication fees, ownership fees, custom duty, royalty and rural telecommunication development fund, dividend, property and vehicle tax, value receipt for past ten F/Y.

Advance income tax has been showing increasing as well as decreasing trend from F/Y 207/08 at 2,838.26 million to F/Y 2016/17 at 6,148.28 million with highest on F/Y 2013/14 at 7,075.94 million. Thus advance income tax has shown fluctuating trend over past fifteen F/Y. On an average, advance income tax has contributed 4,790.5 million with a weight of around twenty six percent to government. VAT has been showing overall increasing tend from F/Y 2007/08 at 1,441.03 million to F/Y 2016/17 at 4,752.77 million whereas decreasing trend in F/Y 2010/11 with increase by three times over past ten F/Y. On an average, VAT has contributed 3,120.9 million with a weight of around seventeen percent to government. Telecommunication fees has been showing overall increasing tend from F/Y 2007/08 at 1,239.83 million to F/Y 2016/17 at 3,203.06 million whereas decreasing trend in F/Y 2010/11 with increase by two point five times over past ten F/Y. On an average, telecommunication fees has contributed 2,181.38 million with a weight of around eleven percent to government. Ownership fees has been showing increasing as well as decreasing trend from F/Y 2007/08 at 177.86 million to F/Y 2016/17 at 598.21 million with highest on F/Y 2014/15 at 636.06 million. Thus ownership fees has shown fluctuating trend over past ten F/Y. On an average, ownership fees has contributed 452.96 million with a weight of around two percent to government.

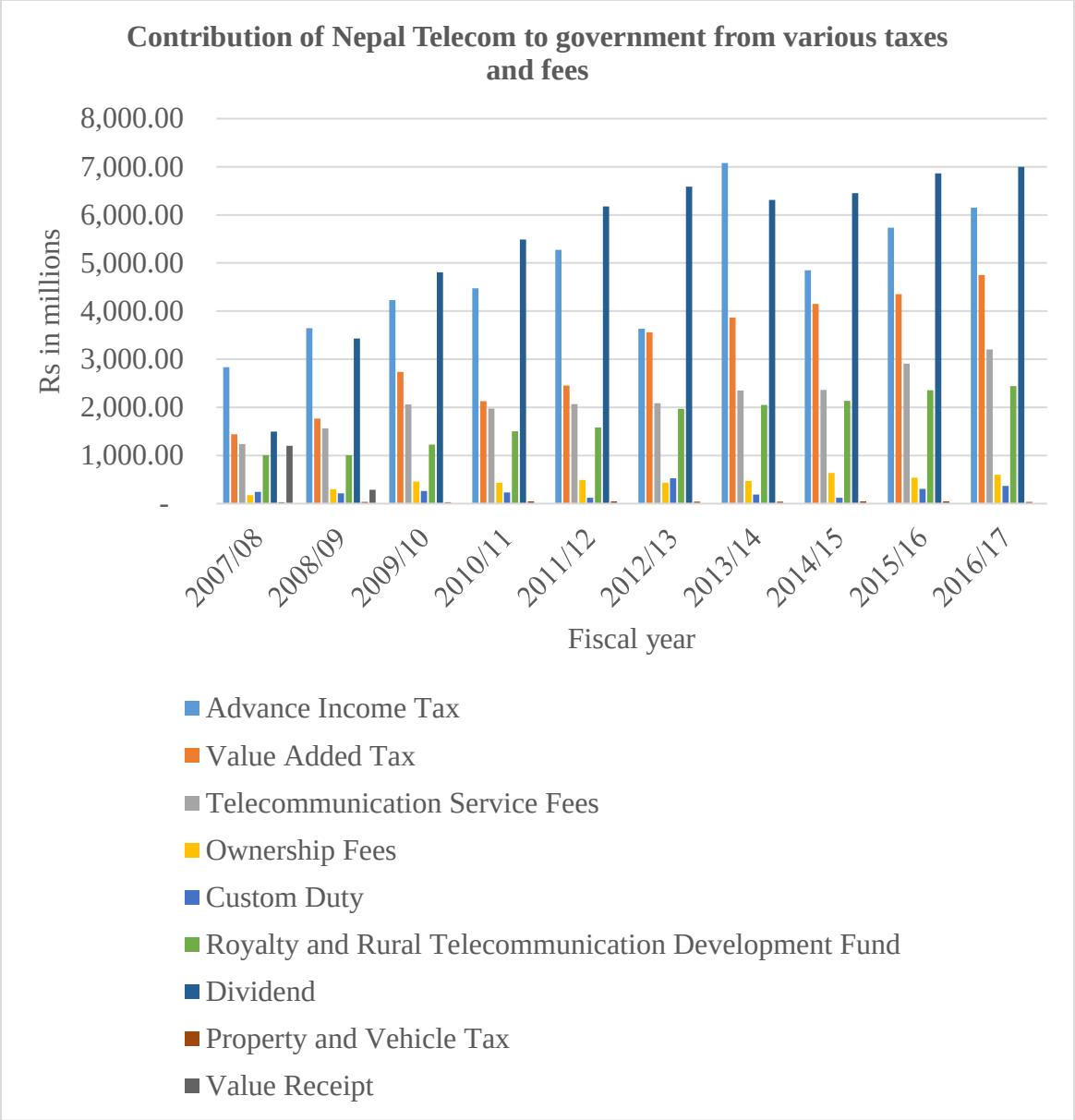
**Table 4.2.3 Contribution of Nepal Telecom to government from various taxes and fees**

**(Rs in million)**

| F/Y | Advance income tax | Value added tax | Telecommunication service fees | Ownership fees | Custom duty | Royalty and rural telecommunication development fund | Dividend | Property and vehicle tax | Value receipt |
|---|---|---|---|---|---|---|---|---|---|
| 2007/08 | 2,838.26 | 1,441.03 | 1,239.83 | 177.86 | 246.09 | 1,003.35 | 1,499.50 | 28.08 | 1,201.98 |
| 2008/09 | 3,648.71 | 1,768.33 | 1,561.83 | 296.88 | 214.89 | 1,007.30 | 3,431.01 | 33.59 | 284.75 |
| 2009/10 | 4,231.40 | 2,736.60 | 2,059.44 | 456.56 | 260.48 | 1,228.95 | 4,803.45 | 27.62 | - |
| 2010/11 | 4,477.41 | 2,127.50 | 1,973.55 | 431.88 | 228.96 | 1,503.50 | 5,489.60 | 45.27 | - |
| 2011/12 | 5,270.10 | 2,452.62 | 2,064.91 | 486.98 | 122.22 | 1,584.57 | 6,175.80 | 44.95 | - |
| 2012/13 | 3,630.93 | 3,560.09 | 2,086.61 | 434.30 | 527.92 | 1,968.45 | 6,587.52 | 42.33 | - |
| 2013/14 | 7,075.94 | 3,865.70 | 2,350.90 | 470.61 | 190.22 | 2,046.51 | 6,313.04 | 42.45 | - |
| 2014/15 | 4,849.35 | 4,152.24 | 2,365.26 | 636.06 | 123.48 | 2,133.55 | 6,450.28 | 47.47 | - |
| 2015/16 | 5,734.59 | 4,352.16 | 2,908.46 | 540.26 | 308.37 | 2,355.58 | 6,862.00 | 45.17 | - |
| 2016/17 | 6,148.28 | 4,752.77 | 3,203.06 | 598.21 | 368.32 | 2,442.25 | 6,999.24 | 34.80 | - |
| **Total** | **47,904.98** | **31,209.03** | **21,813.84** | **4,529.59** | **2,590.96** | **17,274.00** | **54,611.43** | **391.72** | **1,486.73** |
| Average | 4,790.50 | 3,120.90 | 2,181.38 | 452.96 | 259.10 | 1,727.40 | 5,461.14 | 39.17 | 148.67 |

***Source: Annual report of Nepal Telecom, F/Y 2007/08 to 2016/17***

**Figure 4.2.3**




***Source: Table 4.2.3***

Custom duty has been showing increasing as well as decreasing trend from F/Y 2007/08 at 246.09 million to F/Y 2016/17 at 368.32 million with highest on F/Y 2012/13 at 527.92 million. Thus custom duty has shown fluctuating trend over past ten F/Y. On an average, custom duty has contributed 259.1 million with a weight of around one percent to government. Royalty and rural telecommunication development fund has been showing

overall increasing tend from F/Y 2007/08 at 1,003.35 million to F/Y 2016/17 at 2,442.25 million whereas decreasing trend in F/Y with increase by two times over past ten F/Y. On an average, royalty and rural telecommunication development fund have contributed 1,727.4 million with a weight of around nine percent to government. Dividend has been showing overall increasing tend from F/Y 2007/08 at 1,499.5 million to F/Y 2016/17 at 6,999.24 million by five times over past ten F/Y. On an average, dividend has contributed 5,461.14 million with a weight of around thirty percent to government. Property and vehicle tax has been showing increasing as well as decreasing trend from F/Y 2007/08 at 28.08 million to F/Y 2016/17 at 34.8 million with highest on F/Y 2010/11 at 45.27 million. Thus property and vehicle tax has shown fluctuating trend over past ten F/Y. On an average, property and vehicle tax has contributed 39.17 million with a weight of less than one percent to government. Value receipt is available on F/Y 2007/08 and 2008/09 at 1201.98 million and 284.75 million respectively. On an average, advance income tax has contributed highest portion and property and vehicle tax has contributed lowest portion to government revenue in Nepal telecom.

### 4.2.4 Total tax contribution from Nepal Telecom

Among the various taxes and fees contributed to government by Nepal Telecom, we take only property and vehicle tax, income tax, VAT, tax deduction at source and custom duty since they are actual taxes as per the study.

Property and vehicle tax has shown an overall increasing trend from F/Y 2007/08 at 28.08 million to 34.8 million with highest on F/Y 2014/15 at 47.47 million. It has decreased on F/Y 2009/10, 2011/12, 2012/13, 2015/16. On an average it has contributed 39.17 million over time. Income tax payable has shown increasing trend from F/Y 2007/08 at 3,130.32 million to F/Y 2016/17 at 5,734.01 million which has increased by around two times over time. On an average it has contributed 4,591.6 million over time. VAT has shown increasing trend from F/Y 2007/08 at 1,441.03 million to F/Y 2016/17 at 4,752.77 million which has increased by around three times over time. On an average it has contributed 3,120.9 million over time. Tax deduction at source has shown increasing trend from F/Y 2007/08 at 2,838.26 million to F/Y 2016/17 at 6,148.28 million which has increased by around two times over time. On an average it has contributed 4,790.5 million over time. Custom duty has shown increasing as well as decreasing trend from F/Y 2007/08 at 246.09 million to F/Y 2016/17 at 368.32 million which has increased by around one point four nine times over time. On an average it has contributed 259.1 million over time.

**Table 4.2.4**

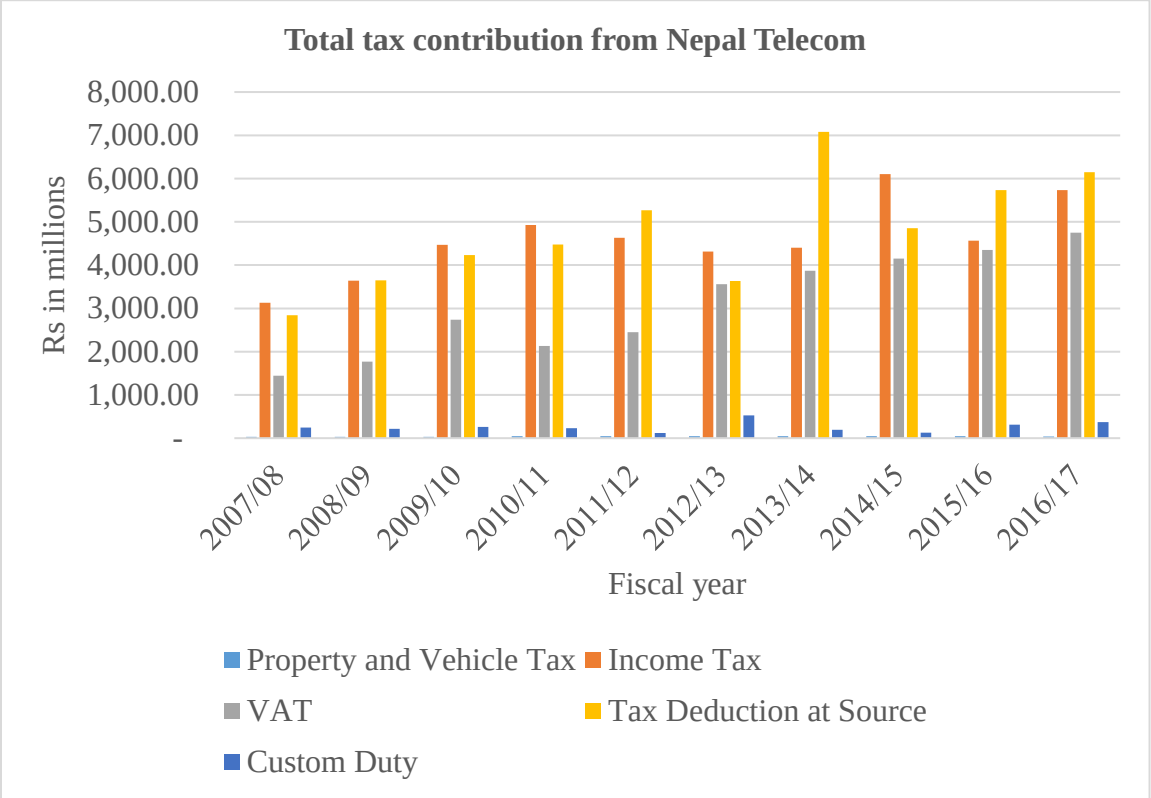
**Total tax contribution from Nepal Telecom**

**Rs in million**

| F/Y | Property and vehicle tax | Income tax | VAT | Tax deduction at source | Custom duty | Total tax |
|---|---|---|---|---|---|---|
| 2007/08 | 28.08 | 3,130.32 | 1,441.03 | 2,838.26 | 246.09 | 7,683.78 |
| 2008/09 | 33.59 | 3,642.59 | 1,768.33 | 3,648.71 | 214.89 | 9,308.11 |
| 2009/10 | 27.62 | 4,467.92 | 2,736.60 | 4,231.40 | 260.48 | 11,724.02 |
| 2010/11 | 45.27 | 4,927.43 | 2,127.50 | 4,477.41 | 228.96 | 11,806.58 |
| 2011/12 | 44.95 | 4,634.54 | 2,452.62 | 5,270.10 | 122.22 | 12,524.43 |
| 2012/13 | 42.33 | 4,310.97 | 3,560.09 | 3,630.93 | 527.92 | 12,072.25 |
| 2013/14 | 42.45 | 4,402.58 | 3,865.70 | 7,075.94 | 190.22 | 15,576.89 |
| 2014/15 | 47.47 | 6,101.39 | 4,152.24 | 4,849.35 | 123.48 | 15,273.93 |
| 2015/16 | 45.17 | 4,564.29 | 4,352.16 | 5,734.59 | 308.37 | 15,004.57 |
| 2016/17 | 34.80 | 5,734.01 | 4,752.77 | 6,148.28 | 368.32 | 17,038.19 |
| **Total** | **391.72** | **45,916.04** | **31,209.03** | **47,904.98** | **2,590.96** | **128,012.74** |
| Average | 39.17 | 4,591.60 | 3,120.90 | 4,790.50 | 259.10 | 12,801.27 |

***Source: Annual Report of Nepal Telecom, F/Y 2007/08 to 2016/17***

**Figure 4.2.4**




***Source: Table 4.3.4***

### 4.2.5 Co-relation analysis

Co-relation between GDP and tax contribution of Nepal Telecom has been calculated according to table in *Annexure 4.2.5.1*

Let GDP and tax contribution be represented by variable (X) and (Y) respectively.

Then co-relation between (X) and (Y) is (r) = 0.971. This means correlation is strong and the variables are positively co-related. Thus, the correlation is significant at 0.01 level of significance. *(Annexure 4.2.5.1)*

Similarly, we have

Co-relation between government revenue and tax contribution of Nepal Telecom has been calculated according to table in *Annexure 4.2.5.2*

Let government revenue and tax contribution be represented by variable (X) and (Y) respectively.

Then co-relation between (X) and (Y) is (r) = 0.933. This means correlation is strong and the variables are positively co-related. Thus, the correlation is significant at 0.01 level of significance. *(Annexure 4.2.5.2)*

### 4.2.6 Multiple regression analysis

Multiple regression of government revenue with income tax, VAT and TDS from Nepal Telecom has been calculated according to table in *Annexure 4.2.6*

We have equation of multiple regression,

$Y = a + b_1X_1 + b_2X_2 + b_3X_3$

Where,

Y= Government revenue

a = Y intercept

b = Slope coefficient

$X_1$ =Income tax from Nepal Telecom

$X_2$ =VAT from Nepal Telecom

$X_3$ = TDS from Nepal Telecom

According to *Annexure 4.2.6*, the correlation value of R is 0.952. It means the combined correlation between income tax, VAT and TDS tax with government revenue is 0.952 which implies that the independent variables are strongly positively correlated with government revenue. Coefficient of determination R square is a statistical measure of closeness of data fitted in regression line. R square obtained is 0.905 and adjusted R square obtained is 0.858 It implies the model explains 90.5 percent variability around its mean. In general, the higher the R-squared, the better the model fits the data.

Putting the values of constant and coefficients in the regression equation

$Y = -176234.87 + 14.151b_1 + 113.292b_2 + 12.491b_3$

From the analysis of data of past ten years, the Y intercept 'a' is 176234.87 which indicates that the value of government revenue becomes 176,234.87 million rupees when the independent variables, income tax, VAT and TDS are zero. When income tax from Nepal Telecom increases by one time, government revenue increases by 14.51 times. Similarly, when VAT from Nepal Telecom increases by one time, government revenue increases by

113.292 times. Similarly, when TDS from Nepal Telecom increases by one time, government revenue increases by 12.491 times.

The t- value of income tax, VAT and TDS are 0.427, 3.791 and 0.561 respectively. The p-value of income tax, VAT and TDS are 0.684, 0.009 and 0.595.

This shows that only VAT has significant relationship with dependent variable, government revenue as its p-value is less than 0.05 at 5 percent level of significance which implies that null hypothesis is rejected and alternative hypothesis is accepted.

Whereas, income tax and TDS have p-values greater than 0.05 at 5 percent level of significance thus these independent variables do not have significant relationship with the dependent variable, government revenue which implies that null hypothesis is accepted and alternative hypothesis is rejected.

The calculated F-value is 19.137 at 0.002 significance which shows the calculated F is greater than tabulated F. It shows that null hypothesis is rejected and alternative hypothesis is accepted at 5 percent level of significance.

### 4.2.7 Time series analysis

Time series analysis of tax contribution to government from Nepal Telecom has been calculated according to table and figure in *Annexure 4.2.7*

Tax contribution from Nepal Telecom from F/Y 2007/08 to 2016/17 is taken as dependent variable (*Y*) and time from fiscal year 2007/08 to 2016/17 is taken as independent variable(*X*).

Thus, the time series shows that total tax contribution to government from Nepal Telecom shall be Rs 21,591.55 millions in F/Y 2021/22 five years later if the trend of past ten years continues in this way. *(Annexure 4.2.7)*

### 4.3 Recognition of problems for improving the existing scenario of income tax payment system of Nepal Telecom

Income tax being matter which requires timely assessment and also the procedural aspects have to be followed with utmost care and Nepal Telecom which has a comparatively huge income tax contribution, there will certainly be areas for improvement in the income tax payment system. This led to analyze the problems recognition and improvement perspective as a part of the research.

The problems recognized in course of income tax payment system of Nepal Telecom has been collected through structured questionnaire which is presented in *Annexure 4.4* and have been presented in the following manner:

i. Regarding the expenses where deductions are not allowed by tax officers, expenses without proper supporting documents are recognized as the major one by the key informants and are added back before tax calculation. Some recognized expenses that are not genuine also as unallowable one.
ii. Duty of timely recording of the transactions without delay is recognized as major difficulty by majority of key informants in case of difficulty faced in determination of income, expenses deduction, tax determination and tax payment. Some recognized lack of proper information from accounting software also as a difficulty, while some recognized full time involvement of staffs in account division as a difficulty.
iii. Annexure thirteen which contains balance of sales transactions, purchase transactions, debtors and creditors is recognized as the annexure which is questioned by IRD officials and is made to pay fines and penalties at the time of full audit by all of the informants.
iv. Regarding the practical problem faced by accounts department for tax determination in central office, incompetent staffs at branches and divisions is recognized as major practical problem by majority of key informants. Some also recognized untimely recording of transactions by staffs from all over the country's branches and divisions as the practical problem.

v. Complexity in tax assessment is recognized as possible problem in Nepal Telecom regarding income tax as per majority of informants. Some recognized huge volume of tax assessment also as possible problem.

The improvement areas recognized in the existing scenario of income tax payment system of Nepal Telecom is collected through structured questionnaire and have been presented in the following manner:

i. Regarding the encouraging step from government which may keep Nepal Telecom as one of the highest tax paying organizations in future as well, system of tax refund in some sectors is recognized as encouraging step from government by majority of key informants. Some informants also recognized subsidy in remote areas also as an encouraging step from government side.

ii. Regarding the prime area where the statutory auditor and Office of Auditor General has pointed for improvements in tax system; procedure of income tax assessment, furnishing of return to IRD and payment on income tax is recognized as the prime area for improving the tax system of Nepal Telecom by majority of the informants. Some informants also recognized proper disclosure of contribution of direct and indirect tax and fees to government as area for improvement pointed by statutory auditor and Office of Auditor General.

iii. Regarding reduction of problems in income tax payment system of Nepal Telecom, majority of the informants recognized open and transparent atmosphere among the stakeholders of Nepal Telecom as a step for reduction of problem. While, some informants recognized strict compliance requirement as a step for reduction of problem.

# CHAPTER V:

# SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

This chapter provides overview of the research as a whole, concludes the research and also makes suitable suggestions. The research was conducted to find role to taxation towards government revenue and a case study of Nepal Telecom is taken as it was one of the highest tax paying public companies in the nation.

The introduction chapter mainly contains the definitions of various terms, starting information on the subject of research and brief information of Nepal Telecom. The review of literature chapter contains the review of books, journals, articles and dissertations which were published earlier related to the subject of the research. The research is mainly based on secondary data taken from government publications and annual report of Nepal Telecom and also primary has been taken through structured questionnaire.

## 4.1 Summary

### 5.1.1 Findings from nationwide data

- Between the constituents of government revenue it has been observed that tax revenue holds major portion of government revenue in comparison to non- tax revenue during the time span past fifteen fiscal years. On an average of past fifteen years tax revenue contributed 83.84 percent whereas, non- tax revenue contributed only 16.16 percent to government revenue. Moreover, the tax revenue has shown overall increasing trend whereas, non-tax revenue had shown overall decreasing trend over past fifteen years.
- In context of share of tax revenue to GDP, tax revenue contributed a small portion to GDP but has a significant impact on GDP. On an average of past fifteen years tax revenue contributed 8.71 percent to GDP. Tax revenue has shown an overall increasing trend in its contribution to GDP though it has decreased in some years.
- In context of share of government revenue to GDP, government revenue contributes a small portion to GDP but has a significant impact on GDP. On an average of past

fifteen years government revenue contributed 10.25 percent to GDP. Government revenue has shown a constant increasing trend in its contribution to GDP.

- Among the constituents of direct tax revenue over the period of past fifteen years; tax payable by individual and sole traders constituted on an average 24.42 percent of direct tax, tax payable by enterprises and corporations constituted on an average 49.33 percent of direct tax. Thus, tax payable by enterprises and corporations has the highest proportion of direct tax which has been followed by tax payable by individual and sole traders with a significant proportion of direct tax. Among other constituents of direct tax revenue over the period of past fifteen years; tax on investment and other income on an average constituted 11.54 percent of direct tax, social security tax on payroll on an average constituted 4.33 percent of direct tax, recurrent tax on immovable property on an average constituted 0.07 percent of direct tax, taxes on financial and capital transactions on an average constituted 14.62 percent of direct tax, registration tax constituted on an average 2.8 percent of direct tax, ownership certificate charge constituted on an average 2.07 percent of direct tax.
- Among the constituents of indirect tax revenue over the period of past fifteen years; value added tax constituted on an average 44.64 percent of indirect tax, custom duty constituted 27.39 percent of indirect tax. Thus, value added tax has the highest proportion of indirect tax which has been followed by custom duty with a significant proportion of indirect tax. Among other constituents of indirect tax revenue over the period of past fifteen years; excise duty constituted on an average 20.4 percent of indirect tax, tax on specific services on an average constituted 0.53 percent of indirect tax, tax on use of goods and on permission to use goods on an average constituted 8.96 percent of indirect tax, taxes on exports constituted on an average 0.41 percent of indirect tax, other taxes on international trade and transactions on an average constituted 2.05 percent of indirect tax.
- In context of contribution of direct tax to GDP, direct tax contributes a small portion to GDP. On an average of past fifteen years direct tax contributed 2.42 percent to GDP. Further, direct tax has shown a constant increasing trend in its contribution to GDP.

- In context of contribution of direct tax to government revenue, direct tax contributes a considerable portion to government revenue. On an average of past fifteen years direct tax contributed 22.92 percent to government revenue. Further, direct tax has shown an overall increasing trend in its contribution to government revenue.
- In context of contribution of direct tax to tax revenue, direct tax contributes significant portion to tax revenue. On an average of past fifteen years direct tax contributed 27.26 percent to tax revenue. Further, direct tax has shown an overall increasing trend in its contribution to tax revenue.
- In context of contribution of indirect tax to GDP, indirect tax contributes a small portion to GDP. On an average of past fifteen years indirect tax contributed 6.29 percent to GDP. Further, indirect tax has shown a constant increasing trend in its contribution to GDP.
- In context of contribution of indirect tax to government revenue, indirect tax contributes major portion to government revenue. On an average of past fifteen years indirect tax contributed 60.92 percent to government revenue. Further, indirect tax has shown an overall increasing trend in its contribution to government revenue.
- In context of contribution of indirect tax to tax revenue, indirect tax contributes major portion to tax revenue. On an average of past fifteen years indirect tax contributed 72.74 percent to tax revenue. Further, indirect tax has shown increasing as well as decreasing trend with an overall increasing trend in its contribution to tax revenue.
- A fluctuating trend has been observed on the resource gap due difference in total government expenditure and total government income over past fifteen years. Total government expenditure has shown increasing trend which has increased by around 8.65 times over fifteen fiscal years. Total government income has shown increasing trend which had increased by around 9.5 times over fifteen F/Y. Resource gap has shown increasing as well as decreasing trend. On F/Y 2002/03 it is 16,437.2 million and has decreased on F/Y 2003/04 to 15,828.2 million. From F/Y 2004/05 it has again increased up to F/Y 2008/09 at 49,804.7. Again, on F/Y 2009/10 it has drastically reduced to 10,569.48 million and increased on F/Y 2011/12 to 13,196.91

million and again decreased on F/Y 2012/13 to 7053.92 million. There was no resource gap from F/Y 2012/13 to 2015/16, instead there is resource surplus, which is a good sign to the economy of country. Again on F/Y 2016/17 resource gap of 82,834 million is obtained which has been highest gap over all fifteen F/Y.

- Co-relation between GDP and tax revenue is 0.981 which indicates they are significant and shows that they were strongly and positively co-related.
- Co-relation between government revenue and tax revenue is 1 which indicates they are significant and shows that they are strongly and positively co-related.
- In multiple regression analysis, the combined correlation between direct tax and indirect tax with government revenue is 1 which implies that the independent variables are strongly and positively correlated with government revenue. R square and adjusted R square is obtained 0.999. It implies the model explains 99.99 percent variability around its mean. From the data of past fifteen years, when independent variable, direct tax increases by one time, dependent variable, government revenue increases by 1.244 times. Similarly, when independent variable, indirect tax increases by one time, dependent variable, government revenue increases by 1.032 times. In t-test, the overall independent variables are significantly related to dependent variable thus, the alternative hypothesis and accepted whereas, null hypothesis is rejected. In f-test, the independent variables are significantly related to each other thus, the alternative hypothesis and accepted whereas, null hypothesis is rejected.
- The time series analysis of tax revenue shows that nationwide tax revenue would be 90,811.33 million rupees in five years later if, the trend of past fifteen years continued in this way.

### 5.1.2 Findings from the case study of Nepal Telecom

- In context of Nepal Telecom, net tax asset is obtained in most of the F/Y other than F/Y 2007/08 and 2014/15 over past ten years. On the contrary, net tax liability is not obtained in most of the fiscal years except F/Y 2007/08 and 2014/15 over past ten years.
- Deferred tax asset has shown increasing as well as decreasing trend from F/Y 2007/08 to F/Y 2016/17 whereas decreasing trend on F/Y 2008/09, 2010/11 to 2012/13 with highest on F/Y 2014/15. Deferred tax liability is available on F/Y 2015/16 only.
- Among the fees and taxes which was contributed to government over ten fiscal years, on an average; advance income tax constituted 26.35 percent, value added tax constituted 17.17 percent, telecommunication service fees constituted 12 percent, ownership fees constituted 2.49 percent, custom duty constituted 1.43 percent, royalty and rural telecommunication development fund constituted 9.5 percent, dividend constituted 30.4 percent, property and vehicle tax constituted 0.22 percent, value receipt constituted 0.82 percent.
- Among the total tax contributed to government over ten fiscal years, on an average; property and vehicle tax constituted 0.31 percent, income tax constituted 35.87 percent, value added tax constituted 24.38 percent, tax deduction at source constituted 37.42 percent and custom duty constituted 2.02 percent. Thus, tax deduction at source contributes highest among the tax components which is followed by income tax. Value added tax contributes a significant portion to total tax contribution. Whereas, property and vehicle tax and custom duty contributes very small portion of total tax.
- Co-relation between GDP and tax contribution is 0.971 which indicates they are significant and shows that they were strongly and positively co-related.
- Co-relation between government revenue and tax contribution is 0.933 which indicates they are significant and shows that they were strongly and positively co-related.

- In multiple regression analysis, the combined correlation between income tax, VAT and TDS tax with government revenue is 0.952 which implies that the independent variables are strongly positively correlated with government revenue. R square obtained is 0.905 and adjusted R square obtained is 0.858 It implies the model explains 90.5 percent variability around its mean. From the data of past ten years, when independent variable, income tax from Nepal Telecom increases by one time, dependent variable government revenue increases by 14.51 times. Similarly, when independent variable VAT from Nepal Telecom increases by one time, dependent variable government revenue increases by 113.292 times. Similarly, when independent variable, TDS from Nepal Telecom increases by one time, government revenue increases by 12.491 times. Moreover, in t-test only VAT has significant relationship with dependent variable which implies that null hypothesis is rejected and alternative hypothesis is accepted. Whereas, income tax and TDS, independent variables do not have significant relationship with the dependent variable, government revenue which implies that null hypothesis is accepted and alternative hypothesis is rejected in t-test. In F-test that null hypothesis is rejected and alternative hypothesis is accepted and the independent variables are related to each other.
- Regarding the expenses where deductions are not allowed by tax officers, expenses without proper supporting documents are recognized as the major one and are added back before tax calculation.
- Duty of timely recording of the transactions without delay has been recognized as major difficulty in case of difficulty faced in determination of income, expenses deduction, tax determination and tax payment.
- Annexure thirteen which contains balance of sales transactions, purchase transactions, debtors and creditors has been recognized as the annexure which has been questioned by IRD officials and is made to pay fines and penalties at the time of full audit.
- Regarding the practical problem which has been faced by accounts department for tax determination in central office, incompetent staffs at branches and divisions is recognized as major practical problem.

- Complexity in tax assessment is recognized as possible problem in Nepal Telecom regarding income tax.
- Regarding the encouraging step from government which might keep Nepal Telecom as one of the highest tax paying organizations in future as well, system of tax refund in some sectors has been recognized as encouraging step from government.
- Regarding the prime area where the statutory auditor and Office of Auditor General has pointed for improvements in tax system; procedure of income tax assessment, furnishing of return to IRD and payment on income tax is recognized as the prime area for improving the tax system of Nepal Telecom.
- Regarding reduction of problems in income tax payment system of Nepal Telecom, open and transparent atmosphere among the stakeholders of Nepal Telecom has been recognized as a step for reduction of problem.

## 5.2 Conclusion

Over the past fifteen fiscal years, tax revenue has been primary source of government revenue. It has a distinct contribution to GDP, government revenue. It constituted of direct tax and indirect tax. In comparison to direct tax, indirect tax has higher contribution to tax revenue, government revenue and GDP. A fluctuating trend has been observed on the resource gap due difference in total government expenditure and total government income over past fifteen years. Also there has been years when resource surplus was observed. At present the country has been heavily relying on imports which would only enlarge the ambit of indirect tax which actually causes inflation and rise in resource gap. Scope of direct tax has not been broadened by the government. Public enterprises, private entities and government institutions have contributed not even a quarter towards tax revenue, government revenue whereas, very small proportion towards GDP. The statistical tools demonstrated that GDP and government revenue have been strongly related and dependent on with the overall direct and indirect tax. Thus overall taxation has strong positive impact on government revenue.

Over the past ten years, Nepal Telecom has been contributing significant portion of tax revenue through income tax, value added tax, tax deduction at source, property and vehicle tax and custom duty. It has also been contributing to government through various regulatory fees. Complexity regarding tax assessment, improper documentation of expenses, untimely recording of transactions, mismatched balances in annexure thirteen of IRD, improper support from branches have been recognized as existing problem in the areas of income tax payment system. Tax refund in some sectors and open environment from stakeholders were possible suggestions from Nepal Telecom for improvement in tax payment system. The statistical tools demonstrated GDP and government revenue have been highly related and dependent on with the income tax, VAT and TDS contributed from Nepal Telecom. Thus Nepal Telecom has been identified as major contributor of tax to government.

## 5.3 Recommendations

- The scope and regulation for tax must be improved and strictly adhered.
- As indirect tax contributed higher proportion to government revenue, indirect tax levy and collection must be encouraged.
- Service tax is still not introduced in the country. For broadening the scope of indirect tax many countries had implemented service tax and now have implemented Goods and Service Tax for applying uniform indirect tax on all goods and services, but we are far behind in this regard.
- VAT is charged at flat thirteen percent but this is not a correct practice. Basic and essential goods which are required for daily consumption of general public must have lower percentage of VAT.
- Moreover, the country has to promote sectors like commercial agriculture, hydropower, tourism, manufacturing industries, tourism such that the purview of direct tax can be broadened.
- Nepal Telecom has been one of the highest tax paying public companies but even though it has areas for improvements in the tax payment system. Tax assessment according to directives of Nepal Financial Reporting Standards can reduce complexity if income tax assessment. Competent and experienced human resource recruitment can solve the problem of improper documentation of expenses, untimely recording of transactions and improper support from branch staffs instead of making political or employee union recruitment. Party ledger and party statements must be reviewed as soon as end of fiscal year such that mismatch of balances in annexure thirteen of IRD can be prevented.
- Further, globally telecommunication charges are decreasing but in our country it is still expensive. Nepal Telecom must reduce its charges on calls, internet, data and other sectors. This can be done by reduction of rate of VAT on PSTN phone and mobile phones. The government must also take steps for reduction of VAT rate at basic phone and mobile calls.

- Further, Nepal Telecom should have a vision of developing telecommunication technology of its own as it has enough financial, human and infrastructural resources rather than importing technology from abroad.

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# Appendices

*Annexure 4.1.8.1*

**Table 4.1.8.1**

**Co-relation between GDP and tax revenue**

**Rs in million**

| F/Y | GDP at basic price | Tax revenue |
|---|---|---|
| 2002/03 | 767,582.00 | 40,896.00 |
| 2003/04 | 837,682.00 | 48,173.00 |
| 2004/05 | 914,088.00 | 54,104.70 |
| 2005/06 | 1,013,977.00 | 57,430.40 |
| 2006/07 | 1,126,300.00 | 71,126.70 |
| 2007/08 | 1,264,601.00 | 85,155.50 |
| 2008/09 | 1,508,850.00 | 117,051.90 |
| 2009/10 | 1,772,694.00 | 159,785.30 |
| 2010/11 | 2,052,228.00 | 177,227.20 |
| 2011/12 | 2,298,248.00 | 211,722.60 |
| 2012/13 | 2,525,886.00 | 259,214.90 |
| 2013/14 | 2,876,673.00 | 312,441.20 |
| 2014/15 | 3,099,248.00 | 355,955.70 |
| 2015/16 | 3,243,996.00 | 421,096.60 |
| 2016/17 | 3,759,190.00 | 553,867.00 |

***Source: Economic Survey, Ministry of Finance, F/Y 2011/12 to 2017/18***

*Annexure 4.1.8.1*

**Correlations**

| | | GDP at basic price | Tax revenue |
|---|---|---|---|
| GDP at basic price | Pearson correlation | 1 | .981** |
| | sig. (2-tailed) | | .000 |
| | N | 15 | 15 |
| Tax revenue | Pearson correlation | .981** | 1 |
| | sig. (2-tailed) | .000 | |
| | N | 15 | 15 |

**. Correlation is significant at the 0.01 level (2-tailed).

*Annexure 4.1.8.2*

**Table 4.1.8.2**

**Co-relation between government revenue and tax revenue**

**Rs in million**

| F/Y | Government revenue | Tax revenue |
|---|---|---|
| 2002/03 | 54,538.90 | 40,896.00 |
| 2003/04 | 62,331.00 | 48,173.00 |
| 2004/05 | 70,122.70 | 54,104.70 |
| 2005/06 | 72,281.90 | 57,430.40 |
| 2006/07 | 87,712.10 | 71,126.70 |
| 2007/08 | 107,622.50 | 85,155.50 |
| 2008/09 | 143,474.50 | 117,051.90 |
| 2009/10 | 177,991.70 | 159,785.30 |
| 2010/11 | 198,375.90 | 177,227.20 |
| 2011/12 | 244,374.00 | 211,722.60 |
| 2012/13 | 296,021.10 | 259,214.90 |
| 2013/14 | 356,620.70 | 312,441.20 |
| 2014/15 | 405,866.40 | 355,955.70 |
| 2015/16 | 481,961.60 | 421,096.60 |
| 2016/17 | 609,180.00 | 553,867.00 |

***Source: Economic Survey, Ministry of Finance, F/Y 2011/12 to 2017/18***

*Annexure 4.1.8.2*

**Correlations**

| | | Government revenue | Tax revenue |
|---|---|---|---|
| Government revenue | Pearson correlation | 1 | 1.000** |
| | sig. (2-tailed) | | .000 |
| | N | 15 | 15 |
| Tax revenue | Pearson correlation | 1.000** | 1 |
| | sig. (2-tailed) | .000 | |
| | N | 15 | 15 |

**. Correlation is significant at the 0.01 level (2-tailed).

*Annexure 4.1.9*

**Table 4.1.9**

**Multiple regression among government revenue, direct tax and indirect tax**

**Rs in million**

| F/Y | Government revenue | Direct tax | Indirect tax |
|---|---|---|---|
| 2002/03 | 54,538.90 | 10,881.90 | 30,014.10 |
| 2003/04 | 62,331.00 | 11,912.60 | 36,260.40 |
| 2004/05 | 70,122.70 | 13,071.80 | 41,032.90 |
| 2005/06 | 72,281.90 | 13,968.10 | 43,462.30 |
| 2006/07 | 87,712.10 | 18,980.30 | 52,146.40 |
| 2007/08 | 107,622.50 | 23,087.70 | 62,067.80 |
| 2008/09 | 143,474.50 | 34,319.70 | 82,731.20 |
| 2009/10 | 177,991.70 | 40,396.00 | 119,389.30 |
| 2010/11 | 198,375.90 | 46,720.30 | 130,506.90 |
| 2011/12 | 244,374.00 | 57,770.20 | 153,951.60 |
| 2012/13 | 296,021.10 | 73,012.60 | 186,202.30 |
| 2013/14 | 356,620.70 | 86,742.30 | 225,698.90 |
| 2014/15 | 405,866.40 | 101,089.20 | 254,866.50 |
| 2015/16 | 481,961.60 | 133,268.80 | 287,827.80 |
| 2016/17 | 609,180.00 | 172,238.70 | 381,627.70 |

***Source: Economic Survey, Ministry of Finance, F/Y 2011/12 to 2017/18***

*Annexure 4.1.9*

**Variables entered/removed[a]**

| Model | Variables Entered | Variables Removed | Method |
|---|---|---|---|
| 1 | Indirect Tax, Direct Tax[b] | . | Enter |

a. Dependent Variable: Government Revenue

b. All requested variables entered.

**Model Summary**

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|---|---|---|---|---|
| 1 | 1.000[a] | .999 | .999 | 5333.9390 |

a. Predictors: (Constant), Indirect Tax, Direct Tax

**ANOVA[a]**

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| 1 | Regression | 413753760286.997 | 2 | 206876880143.498 | 7271.364 | .000[b] |
| | Residual | 341410860.944 | 12 | 28450905.079 | | |
| | Total | 414095171147.940 | 14 | | | |

a. Dependent Variable: Government Revenue

b. Predictors: (Constant), Indirect Tax, Direct Tax

*Annexure 4.1.9*

**Coefficients[a]**

| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | 11479.570 | 2918.011 | | 3.934 | .002 |
| | Direct Tax | 1.244 | .256 | .354 | 4.855 | .000 |
| | Indirect Tax | 1.032 | .116 | .647 | 8.865 | .000 |

a. Dependent Variable: Government Revenue

*Annexure 4.1.10*

**Table 4.1.10**

**Time series analysis of tax revenue**

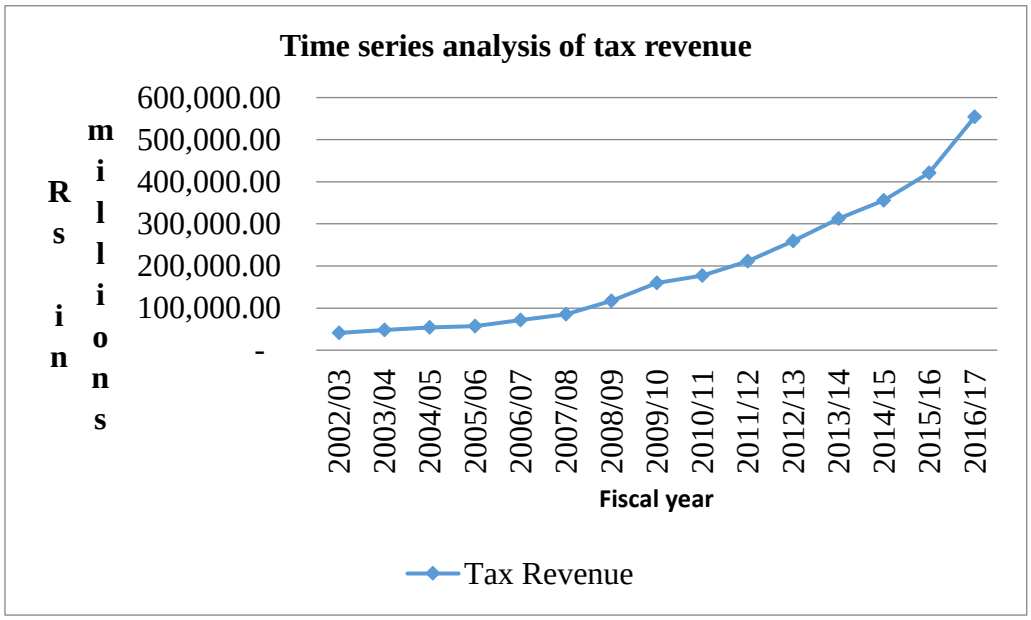
**Rs in million**

| F/Y | Tax revenue |
|---|---|
| 2002/03 | 40,896.00 |
| 2003/04 | 48,173.00 |
| 2004/05 | 54,104.70 |
| 2005/06 | 57,430.40 |
| 2006/07 | 71,126.70 |
| 2007/08 | 85,155.50 |
| 2008/09 | 117,051.90 |
| 2009/10 | 159,785.30 |
| 2010/11 | 177,227.20 |
| 2011/12 | 211,722.60 |
| 2012/13 | 259,214.90 |
| 2013/14 | 312,441.20 |
| 2014/15 | 355,955.70 |
| 2015/16 | 421,096.60 |
| 2016/17 | 553,867.00 |

***Source: Economic Survey, Ministry of Finance, F/Y 2011/12 to 2017/18***

*Annexure 4.1.10*

**Figure 4.1.10**




***Source: Table 4.1.10***

*Annexure 4.1.10*

**Table 4.1.10( a)**

| **Fiscal year** | **Deviation taken from the year of origin (*X*)** | **Tax revenue(*Y*)** | $X^2$ | $XY$ |
|---|---|---|---|---|
| 2002/03 | -7 | 40,896.00 | 49 | (286,272.00) |
| 2003/04 | -6 | 48,173.00 | 36 | (289,038.00) |
| 2004/05 | -5 | 54,104.70 | 25 | (270,523.50) |
| 2005/06 | -4 | 57,430.40 | 16 | (229,721.60) |
| 2006/07 | -3 | 71,126.70 | 9 | (213,380.10) |
| 2007/08 | -2 | 85,155.50 | 4 | (170,311.00) |
| 2008/09 | -1 | 117,051.90 | 1 | (117,051.90) |
| 2009/10 | 0 | 159,785.30 | 0 | - |
| 2010/11 | 1 | 177,227.20 | 1 | 177,227.20 |
| 2011/12 | 2 | 211,722.60 | 4 | 423,445.20 |
| 2012/13 | 3 | 259,214.90 | 9 | 777,644.70 |
| 2013/14 | 4 | 312,441.20 | 16 | 1,249,764.80 |
| 2014/15 | 5 | 355,955.70 | 25 | 1,779,778.50 |
| 2015/16 | 6 | 421,096.60 | 36 | 2,526,579.60 |
| 2016/17 | 7 | 553,867.00 | 49 | 3,877,069.00 |
| **Total** | **$\sum X = 0$** | **$\sum Y$ = 2,925,248.70** | **$\sum X^2$ = 280** | **$\sum XY$ = 9,235,210.90** |

The equation of straight line trend is

$Y = a + bX$

where,

$Y$ = Dependent variable i.e. tax revenue

$X$ = Independent variable i.e. time

*Annexure 4.1.10*

Using Least Square Method the value of variable 'a' and variable 'b' can be obtained through

$\sum Y = Na + \sum X$ equation i

$\sum XY = aX^2 + b\sum X^2$ equation ii

Let year of origin is F/Y 2009/10

From equation i and according to Table 4.1.10(a)

$\sum Y = Na + \sum X$

a = $\frac{\sum Y}{N}$ as $X$ is 0

a = $\frac{2925248.7}{15}$ = 195016.58

From equation ii,

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

$\sum XY = b\sum X^2$ (as $X$ =0)

b = $\frac{\sum XY}{\sum X^2}$

b = $\frac{9235210.9}{280}$ = 32982.9

The equation of straight line trend is for F/Y 2021/22 ,5 years from F/Y 2016/17 where $X$ = 12 is

$Y$ = a + b$X$

$Y$ = 195016.58 + 32982.9 X 12 = 590811.33

*Annexure 4.2.5.1*

**Table 4.2.5.1**

**Co-relation between GDP and tax contribution of Nepal Telecom to Government**

**Rs in million**

| F/Y | GDP at basic price | Tax contribution |
|---|---|---|
| 2007/08 | 1,264,601.00 | 7,683.78 |
| 2008/09 | 1,508,850.00 | 9,308.11 |
| 2009/10 | 1,772,694.00 | 11,724.02 |
| 2010/11 | 2,052,228.00 | 11,806.58 |
| 2011/12 | 2,298,248.00 | 12,524.43 |
| 2012/13 | 2,525,886.00 | 12,072.25 |
| 2013/14 | 2,876,673.00 | 15,576.89 |
| 2014/15 | 3,099,248.00 | 15,273.93 |
| 2015/16 | 3,243,996.00 | 15,004.57 |
| 2016/17 | 3,759,190.00 | 17,038.19 |

***Source: Economic Survey, Ministry of Finance, F/Y 2007/08 to 2016/17; Annual report of Nepal Telecom, F/Y 2007/08 to 2016/17***

*Annexure 4.2.5.1*

**Correlations**

| | | GDP at Basic Price | Tax Contribution |
|---|---|---|---|
| GDP at Basic Price | Pearson Correlation | 1 | .971** |
| | Sig. (2-tailed) | | .000 |
| | N | 15 | 15 |
| Tax Contribution | Pearson Correlation | .971** | 1 |
| | Sig. (2-tailed) | .000 | |
| | N | 15 | 15 |

**. Correlation is significant at the 0.01 level (2-tailed).

*Annexure 4.2.5.2*

**Table 4.2.5.2**

**Co-relation between government revenue and tax contribution of Nepal Telecom to government** **Rs in million**

| F/Y | Government revenue | Tax contribution |
|---|---|---|
| 2007/08 | 10,762.25 | 7,683.78 |
| 2008/09 | 14,347.45 | 9,308.11 |
| 2009/10 | 17,799.17 | 11,724.02 |
| 2010/11 | 19,837.59 | 11,806.58 |
| 2011/12 | 24,437.40 | 12,524.43 |
| 2012/13 | 29,602.11 | 12,072.25 |
| 2013/14 | 35,662.07 | 15,576.89 |
| 2014/15 | 40,586.64 | 15,273.93 |
| 2015/16 | 48,196.16 | 15,004.57 |
| 2016/17 | 60,918.00 | 17,038.19 |

***Source: Economic Survey, Ministry of Finance, F/Y 2007/08 to 2016/17; Annual report of Nepal Telecom, F/Y 2007/08 to 2016/17***

*Annexure 4.2.5.2*

**Correlations**

| | | Government Revenue | Tax Contribution |
|---|---|---|---|
| Government Revenue | Pearson Correlation | 1 | .933** |
| | Sig. (2-tailed) | | .000 |
| | N | 15 | 15 |
| Tax Contribution | Pearson Correlation | .933** | 1 |
| | Sig. (2-tailed) | .000 | |
| | N | 15 | 15 |

**. Correlation is significant at the 0.01 level (2-tailed).

*Annexure 4.2.6*

**Table 4.2.6**

**Multiple regression of government revenue with income tax, VAT and TDS from Nepal Telecom**

**Rs in million**

| F/Y | Government revenue | Income tax | VAT | TDS |
|---|---|---|---|---|
| 2007/08 | 107,622.50 | 3,130.32 | 1,441.03 | 2,838.26 |
| 2008/09 | 143,474.50 | 3,642.59 | 1,768.33 | 3,648.71 |
| 2009/10 | 177,991.70 | 4,467.92 | 2,736.60 | 4,231.40 |
| 2010/11 | 198,375.90 | 4,927.43 | 2,127.50 | 4,477.41 |
| 2011/12 | 244,374.00 | 4,634.54 | 2,452.62 | 5,270.10 |
| 2012/13 | 296,021.10 | 4,310.97 | 3,560.09 | 3,630.93 |
| 2013/14 | 356,620.70 | 4,402.58 | 3,865.70 | 7,075.94 |
| 2014/15 | 405,866.40 | 6,101.39 | 4,152.24 | 4,849.35 |
| 2015/16 | 481,961.60 | 4,564.29 | 4,352.16 | 5,734.59 |
| 2016/17 | 609,180.00 | 5,734.01 | 4,752.77 | 6,148.28 |

***Source: Economic Survey, Ministry of Finance, F/Y 2007/08 to 2016/17; Annual report of Nepal Telecom, F/Y 2007/08 to 2016/17***

**Variables Entered/Removed[a]**

| Model | Variables Entered | Variables Removed | Method |
|---|---|---|---|
| 1 | TDS, Income Tax, VAT[b] | . | Enter |

a. Dependent Variable: Government Revenue

b. All requested variables entered.

*Annexure 4.2.6*

**Model Summary**

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|---|---|---|---|---|
| 1 | .952[a] | .905 | .858 | 60604.6204 |

a. Predictors: (Constant), TDS, Income Tax, VAT

**ANOVA[a]**

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| 1 | Regression | 210865100501.943 | 3 | 70288366833.981 | 19.137 | .002[b] |
| | Residual | 220375201004.021 | 6 | 3672920017.337 | | |
| | Total | 232902620605.964 | 9 | | | |

a. Dependent Variable: Government Revenue

b. Predictors: (Constant), TDS, Income Tax, VAT

**Coefficients[a]**

| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | -176234.873 | 121703.595 | | -1.448 | .198 |
| | Income Tax | 14.151 | 33.113 | .077 | .427 | .684 |
| | VAT | 113.292 | 29.887 | .821 | 3.791 | .009 |
| | TDS | 12.491 | 22.269 | .100 | .561 | .595 |

a. Dependent Variable: Government Revenue

*Annexure 4.2.7*

**Table 4.2.7**

**Time series analysis of tax contribution to government from Nepal Telecom**

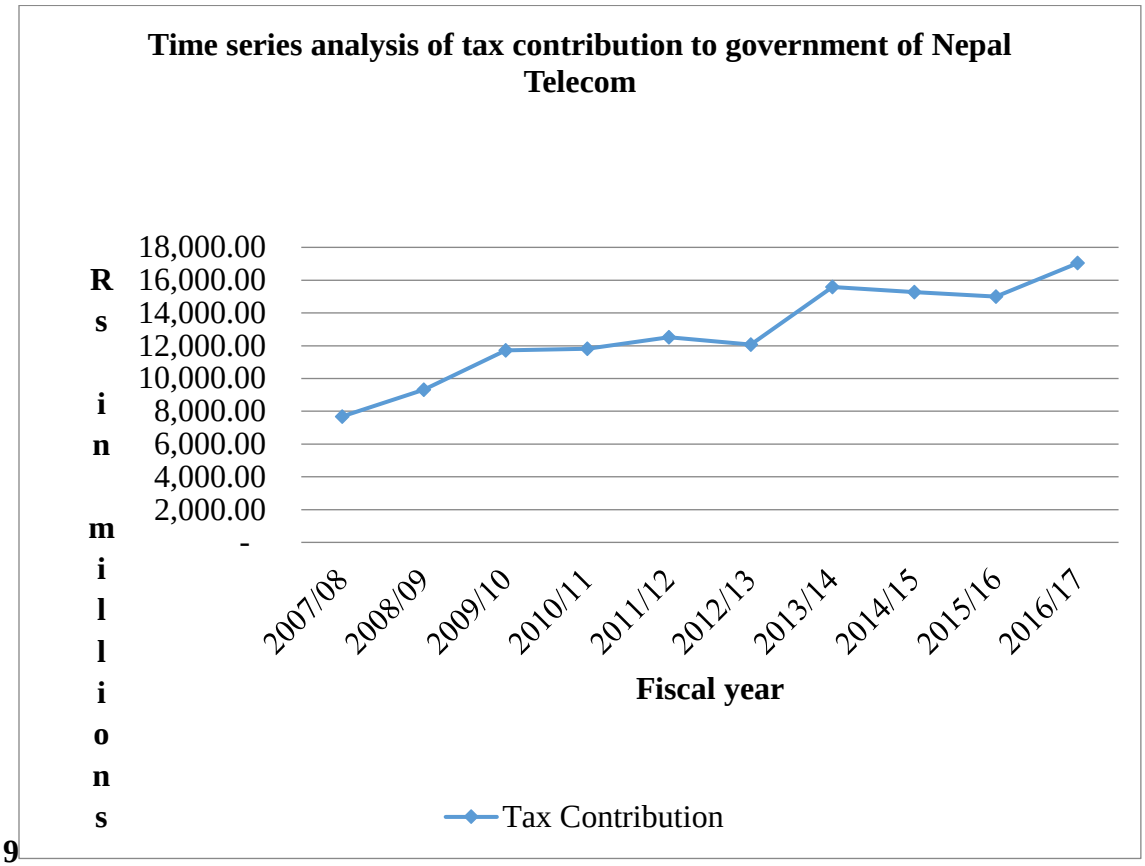
**Rs in million**

| F/Y | Tax contribution |
|---|---|
| 2007/08 | 7,683.78 |
| 2008/09 | 9,308.11 |
| 2009/10 | 11,724.02 |
| 2010/11 | 11,806.58 |
| 2011/12 | 12,524.43 |
| 2012/13 | 12,072.25 |
| 2013/14 | 15,576.89 |
| 2014/15 | 15,273.93 |
| 2015/16 | 15,004.57 |
| 2016/17 | 17,038.19 |

***Source: Annual report of Nepal Telecom, F/Y 2007/08 to 2016/17***

*Annexure 4.2.7*

**Figure 4.2.7**




***Source: Table 4.2.7***

*Annexure 4.2.7*

**Table 4.2.7(a)**

| **Fiscal year** | **Deviation taken from the year of origin (X)** | **Tax revenue(Y)** | **$X^2$** | **XY** |
|---|---|---|---|---|
| 2007/08 | -4.5 | 7,683.78 | 20.25 | (34,577.03) |
| 2008/09 | -3.5 | 9,308.11 | 12.25 | (32,578.38) |
| 2009/10 | -2.5 | 11,724.02 | 6.25 | (29,310.04) |
| 2010/11 | -1.5 | 11,806.58 | 2.25 | (17,709.86) |
| 2011/12 | -0.5 | 12,524.43 | 0.25 | (6,262.21) |
| 2012/13 | 0.5 | 12,072.25 | 0.25 | 6,036.13 |
| 2013/14 | 1.5 | 15,576.89 | 2.25 | 23,365.34 |
| 2014/15 | 2.5 | 15,273.93 | 6.25 | 38,184.82 |
| 2015/16 | 3.5 | 15,004.57 | 12.25 | 52,515.99 |
| 2016/17 | 4.5 | 17,038.19 | 20.25 | 76,671.86 |
| **Total** | **$\sum X = 0$** | **$\sum Y$ = 128,012.74** | **$\sum X^2$ = 82.5** | **$\sum XY$ = 76,336.62** |

The equation of straight line trend is

$Y = a + bX$

where,

$Y$ = Dependent variable i.e. tax contribution

$X$ = Independent variable i.e. time

Using Least Square Method the value of variable 'a' and variable 'b' can be obtained through

$\sum Y = Na + \sum X$ equation i

$\sum XY = aX^2 + b\sum X^2$ equation ii

Let year of origin is F/Y 2012

*Annexure 4.2.7*

From equation i and according to Table 4.2.7(a)

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

a = $\frac{\sum Y}{N}$ as $X$ is 0

a = $\frac{128012.74}{10}$ = 12,801.27

From equation ii,

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

$$\sum XY = b\sum X^2 \text{ (as } X \text{ =0)}$$

b = $\frac{\sum XY}{\sum X^2}$

b = $\frac{76336.62}{82.5}$ = 925.29

The equation of straight line trend is for F/Y 2021/22 ,5 years from F/Y 2016/17 where $X$ = 9.5 is

$Y$ = a + b$X$

$Y$ = 12801.27 + 925.29 X 9.5 = 21,591.55

*Annexure 4.3*

**Questionnaire prepared in order to recognize problems for improving existing scenario of income tax payment system of Nepal Telecom**

1. What are expenses where deductions are not allowed by Tax Officers in most of the cases?
    a) Personal nature expenses
    b) Expenses without proper supporting documents
    c) Expenses that are not genuine
    d) Over stated expenses

2. Among the difficulties faced in determination of income, expenses deduction, tax determination and tax payment, which is the major one?
    a) Duty of timely recording of the transactions without delay
    b) Full time involvement of staffs in account division
    c) Lack of proper information from accounting software
    d) Improper information on time due to lack of co-ordination among staffs

3. Among the details to be furnished to Inland Revenue Department (IRD), which annexure is often raised then questioned by IRD and has made to pay maximum fines and penalties in full audit?
    a) Annexure 2 (Tax calculation details)
    b) Annexure 5 (Business income details)
    c) Annexure 10 (Advance income tax balance details)
    d) Annexure 13 (Sales, purchase, debtors and creditors details)

*Annexure 4.3*

4. What is the major practical problem faced by Accounts Department for Tax Determination in Central Office?
    a) Untimely recording of transactions like sales and purchase by staffs from all over the country branches and divisions
    b) Lack of timely information for sales returns, purchase returns, omission of items or various issued from the parties on time.
    c) Incompetent staffs in branches and divisions
    d) Pressure from employee union and top management

5. What are the possible problems in Nepal Telecom regarding Income Tax?
    a) Huge volume of Tax Assessment
    b) Complexity in Tax Assessment
    c) Procedural requirements in Tax Payment
    d) Filing of Tax Returns with Inland Revenue Department

6. Nepal Telecom is one of the highest tax paying organization in the country. What might be one encouraging step by the government which might encourage Nepal Telecom to be among highest tax paying organization also future?
    a) Exemption in some specific sectors for tax payment
    b) Subsidy in remote areas
    c) Concession in the basic tax rate
    d) System of tax payment refund in some of the sectors

*Annexure 4.3*

7. What is the prime area where the statutory auditor and Office of Auditor General has pointed for improvements in tax system?
    a) Inadmissible expenses which are added back and tax is paid on added back amount
    b) Proper disclosure of contribution of direct and indirect tax and fees to government
    c) Procedure of income tax assessment, furnishing of return to IRD and payment on income tax
    d) Others if any……

8. How can problems in income tax payment system of Nepal Telecom be reduced?
    a) Knowledge and efficiency among the accounts department staffs
    b) Knowledge and efficiency among the various parties transacting with Nepal Telecom
    c) Strict compliance requirements
    d) Open and transparent atmosphere among the stakeholders of Nepal Telecom