

**TAX REFORM IN NEPAL :
A STUDY OF NEPALESE VALUE ADDED TAX SYSTEM**

A THESIS

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VIVA-VOCE SHEET

We have conducted the Viva-Voce examination of the thesis

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Entitled
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and found the thesis to be the original work of the student written according to the prescribed format of the Faculty of Management, Tribhuvan University. We recommend the thesis to be accepted as partial fulfillment of the requirements for the Degree of Master of Business Studies (MBS).

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

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Milan Shakya

DECLARATION

I hereby declare that the thesis entitled “Tax Reform in Nepal: A Study of Nepalese Value Added Tax System” submitted to the Office of the Dean, Faculty of Management, Tribhuvan University is my original work. It has been prepared for the partial fulfillment of the requirements for the Degree of Master of Business Studies (MBS) under the supervision of Mr. Surendra Keshar Amatya, Associate Professor, Department of Accountancy and Taxation, Nepal Commerce Campus, Tribhuvan University.

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Abbreviations

C-VAT	—	Consumption Type Value Added Tax
DANIDA	—	Danish International Development Agency
DG	—	Director General
EC	—	European Community
EEC	—	European Economic Community
e.g.	—	For example
FY	—	Fiscal Year
Fig.	—	Figure
GDI	—	Gross Domestic Income
GDP	—	Gross Domestic Product
GON	—	Government of Nepal
GST	—	Goods & Service Tax
GTZ	—	Deutsche Gesellschaft Fu'r Technische Zusammenarbeit (German Technical Co-operation)
HIID	—	Harvard Institute for International Development
i.e.	—	that is
IRD	—	Inland Revenue Department
I-VAT	—	Income Type Value Added Tax
MBS	—	Master of Business Studies
MIS	—	Management Information System
MOD VAT	—	Modified Value Added Tax
MOF	—	Ministry of Finance
MST	—	Multi-stage Sales Tax (also Manufacture Level Sales Tax)
No.	—	Number
NRB	—	Nepal Rastra Bank
PAN	—	Permanent Account Number
P-VAT	—	Product Type Value Added Tax
Rs.	—	Rupees
RST	—	Retail Level Sales Tax
SAARC	—	South Asian Association for Regional Co-operation
TPIN	—	Tax Payer's Identification Number
TR	—	Total Revenue
TXR	—	Total Tax Revenue

UML	—	United Marxist Leninist (Communist Party of Nepal)
USAID	—	United States Agency for International Development
VAT	—	Value Added Tax
viz.	—	Videlicet
vs.	—	versus
WST	—	Wholesale Level Sales Tax
WTO	—	World Trade Organization

CHAPTER - 1

INTRODUCTION

1.1 Background of the Study

1.1.1 Introduction to Tax

Economic development has been one of the most popular slogans in almost all the developing countries all over the world. Similarly, achievement of high rate of economic growth rate, reduction of income disparities and poverty and improvement of living standard of people are some development strategies towards which most of the government efforts have been directed in developing countries.

It is known that government needs more revenue mobilization for overall economic development and state welfare. Besides this, for meeting day-today expenditure, the government also requires some sources of income which is called revenue.

The role of revenue in the development of a country is not less important than the role of oxygen for the existence of human body. In this context, a government needs to mobilize a lot of internal resources to fulfill its responsibility towards its nation and people. In the developing country like Nepal, there is a necessity for raising a larger volume of funds for the development and administration expenses.

The revenue collection is a challenging task in itself which demands increasing necessity of regular expenditure in general and development expenditure in particular. However, resource mobilization is very low compelling the government to rely heavily on foreign assistance. Development expenditure has been dependent almost entirely on the foreign aid. External assistance is uncertain, precarious, inconvenient and not conducive to the healthy and overall development should there be heavy dependence on it. The foreign aids are not bad for economic development of the nation *per se*. But the experience of the most of the developing countries shows that there are negative effects of increasing international grants and loans to finance the public development activities. Thus the government should depend on its own resources for generating revenue in order to finance these regular and development activities.

The government can collect revenue from taxable and non taxable sources. Tax is a key source for revenue generation and mobilization. Different persons have defined taxation in different ways. In this respect, it would be better to take the definition given by Prof. Seligman. In his words,

“Tax is the compulsory contribution from a person to the government to defray expenses incurred in the common interest of all without reference to special benefit conferred.”

From the definition given above, it can be said that firstly, a tax is a compulsory levy and those who are taxed have to pay it without getting corresponding benefit of services or goods from the government. The taxpayer does not have any right to receive the direct benefit from the tax paid. Due to this compulsory nature, people have expressed different views in satirical way about the taxation. In this respect, some say “Nothing is certain in this world but death and taxes”, some say “Death and taxes are both certain ... but death is not annual”; while others say “Death means stopping to pay tax”. Here, it should be noted that all compulsory payments are not taxes. For example, fines and fees are also compulsory payments without having direct benefit to the payer but they are not taxes because the objective is not to collect revenue but to curb certain types of offences. Secondly, the taxpayer cannot receive any quid pro quo for the payment of tax. The taxpayer does not receive equivalent benefit from the government. A tax is not a price paid by one for which he can claim for goods and services. The charge of price for goods and services by public authority is not a tax. Thirdly, the tax is paid to the government for running it. Fourthly, the amount is spent for common interest of the people. The tax is collected from haves and basically, spent for the interest of have-nots in the society. Fifthly, a natural or an artificial person pays the tax. (Kandel, 2004:3)

In conclusion, it can be said that a tax is a liability to pay an amount to the state on account of the fact that the assesses have income of a minimum amount from certain specified sources or that they own certain tangible or intangible property or that they carry on certain economic activities or they consume certain goods and services which have been chosen for taxation. (Kandel, 2004:3)

Taxes are major fiscal policy instruments and important government policy tools have an important role in increasing the rate of capital formation and thereby a high rate of economic growth can be achieved. Increase in taxes may be directed to increase in saving through the postponement of consumption. The increase in saving means a

higher volume of resource is available for making useful and productive investments. Taxation may also play a dual role. On the one hand, it may be used to make the maximum volume of resource available to public sector. On the other hand, taxation may be used to promote useful investment in the private sector and to prevent the resource from being dissipated over speculative and unproductive investment as well as over lavish and luxurious consumption. Thus, taxes in developing countries serve as the severe means of raising revenue. Therefore, Taxation may be utilized by the government as an effective tool for giving incentive to the proper growth of saving, investment and gross domestic product. But, in Nepal the tax policy is mostly guided towards the revenue generation.

1.1.1.1 Classification of Tax

Because there are so many effects of taxation, no single tax is completely perfect. Consequently, there must be a structure of taxation, combining a number of taxes, which the government can vary from time to time according to changes in emphasis on different objectives.

Depending on the methods of payment of taxes, taxes can be classified into two major categories, viz. direct taxes and indirect taxes.

A. Direct Taxes

Under direct taxes the person makes payment direct to the revenue authorities - the Inland Revenue Department (IRD) or the local authority. In the words of Dr. Dalton, "A direct tax is really paid by the person on whom it is legally imposed". (Dhakal, 2001:2) Usually each individual's tax liability is assessed separately. Some examples of direct taxes are briefly described below individually.

i. Income Tax

Under income tax, taxable income, which is subject to a basic tax rate, is arrived at after allowing deductions depending on circumstances from chargeable incomes. For natural person, taxable income is derived by deducting allowable deductions depending on marital status and other personal circumstances from admissible incomes and is subject to a basic rate with increasing rates above Rs. 115000.

ii. Corporate Tax

Tax imposed on income of corporate bodies is called corporate tax. All profits, whether distributed or not, are taxed. A part is transferred to shareholders and deducted in advance when the dividend is paid.

iii. Capital Gain Tax

A tax is levied on any capital gain when an asset is disposed of. These assets are land, buildings, long term investments, etc. Owner-occupied houses, cars, National Saving Certificates and goods and chattels worth less than a limit are excluded, and losses may be offset against gains.

iv. Capital Transfer Tax

Capital transfer tax applies to lifetime gifts as well as legacies.

v. Other Taxes

These consist of stamp duties (payable on financial contracts), vehicle tax, property tax, house and land tax etc.

Direct taxes yield more than two-thirds of total revenue. Their great merit is that being progressive and assessed according to the individual's circumstances; they ensure that the heaviest burdens are placed on the broadest backs. Their progressive character also gives additional weight to their role as built-in-stabilizers.

B. Indirect Taxes

Indirect taxes on goods and services are so called because the revenue authority (the Department of Customs/Excise) collects them from the seller, who, as far as possible, passes the burden on to the consumer by including the duty in the final selling price of the good. In the words of Dr. Dalton, "An indirect tax is imposed on one person but paid partly or wholly by another". (Dhakal, 2001:4). In other words, such tax is levied on one person who does not bear it from his/her own income. Instead, the tax liability is transferred by collecting it from customers by adding it to the price of goods or services. Indirect taxes may be specific or ad valorem.

The Indirect taxes may be:

i. Customs Duty

As per Section 2 (c) of Custom Duty Act 2019, customs duty means the customs duty payable at rates prescribed by Nepal Law from time to time on exports or imports.

ii. Excise Duty

As per Section 3 of the Excise Duty Act 2058, excise duty is charged on import and production of those goods and services, which are specifically mentioned in the schedule forming part of the Act. Those goods or services not covered by the Schedule are free from the boundary of the Act.

iii. Value Added Tax (VAT)

Value Added Tax is one of the indirect taxes which constitute the main topic and focus of the present research as well. What is VAT and how it is levied forms the main concern of the subject. So, this section obviously does not need any description in that the introductory description follows in the next section below.

1.1.1.2 Objectives of Tax

Tax is a permanent instrument for collecting revenues. It is a major sources of revenue in developed world and has been appearing as an important source of revenue in the developing world like Nepal as well. It has been an instrument of social and economic policy for the government. However, the objective of taxation has been different for different periods. In ancient times, its objective was to strengthen the muscle of the state by raising more revenues for mobilizing these in security to an individual and society from violence, invasion, injustice and maintaining public institutions which can never be for the interest of an individual.

In modern days, the objective of tax is shifted from the security perspective to the economic development. The modern objective of taxation is not only to main peace and security, but also to conduct development activities.

From the above facts, we can enumerate the objectives of tax as given below:

- To raise revenue for ensuring resource mobilization,
- To distribute equally wealth and income in the society,
- To encourage the production of certain products,
- To encourage employment
- To ensure saving and investment
- To contribute to the enforcement of government policy
- To remove regional disparities and imbalances. (Bhattarai & Koirala, 2007:2)

1.1.2 Value Added Tax

In the least developed countries like Nepal, the role of indirect tax is seen to be more important. Of the Indirect taxes, VAT is probably the best tax system and the most important innovation of the second half of the twentieth century, which is considered as an effective means to collect revenue as a reformed sales tax of indirect tax system.

VAT is a broad based tax as it also covers the value added to each commodity by a firm during all stages of production and distribution. It is a modern tax system which enables to efficient collection system, to increase efficiency and to reduce tax evasion. It is also refereed as the backbone of income tax system in Nepal.

VAT plays great role in the revenue mobilization in Nepal. The reason behind VAT system, it makes transparency in all kinds of transaction, helps to make the wide area of tax and discourages tax evasion. So it is needless to say that VAT is the most important sources of the government revenue.

VAT is intended to be levied – or charged – whenever there is some value addition to raw material. The taxpayers on the other hand, will get credit for the amount of tax paid off at the stages of procurement. The value added tax system has proven to be effective in avoiding problems that normally might arise out of the double taxation of goods and services.

The lesson learnt of tax reforms in developing countries proves that VAT is the most important choice and ingredient of tax reform. It may be adopted by a developing country with no difficulty and is an important instrument for the mobilization of

internal resources and the pressure of VAT on economic activities is minimal or not at all. The tax reform and adoption of a VAT, is therefore, essentially connected with the efforts of many underdeveloped countries to achieve the goal of economic development.

1.2 Focus of the Study

Nepal has adopted VAT since 1st Marga 2054 BS (November 16, 1997). In the present situation of Nepal, tax reform and adoption of VAT as a substitute of existing sales taxes is expected to improve the Nepal's tax system in various ways. The sales tax system is very narrowly based and less productive. It is also putting much pressure on economic activities by its distorted character. By contrast, VAT would broaden the tax base and increase the revenue elasticity. Hence the main focus of the study is to find out how VAT is superior to sales tax and what is its share in the GDP (Gross Domestic Product), thereby showing a substantial change between the two periods i.e. before implementation of VAT and after its implementation. The study also critically assesses the administration of VAT in Nepal, analyzing the lapses and problems with necessary measures for improvement.

1.3 Statement of the Problem

In every country, the government collects its revenues through different sources. Out of which, taxes contribute a significant amount in the public revenues. The government mobilizes its revenues through budget in development activities for the public welfare and interests.

Nepal is an underdeveloped and one of the poorest countries in the world. It has low per capita income and more than one third people of the nation are living under the poverty line. The economic development and prosperity is very low. Foreign dependency and internal leakages has made government think for another option which is expected to increase the revenue. Moreover, fiscal deficit has been increasing due to the continuously growing expenditure and the low revenue performance in Nepal. In addition, the country has also been facing the increasing burden of foreign loan. Widening trend of the different resource gap is shown in the table 1

Table 1
Resource Gap in Nepal

(Rs. in million)

Fiscal Year	Total Expenditure (A)	Total Revenue (B)	Resource Gap (A-B)	Foreign Grants (c)	Resource Gap (A-B+C)	Foreign Loan (D)	Resource Gap (A-B+C+D)
1990/91	23549.8	10729.9	12819.9	2164.8	10645.1	6256.7	4398.4
1991/92	26418.2	13512.7	12905.5	1643.8	11261.7	6816.9	4444.8
1992/93	30897.7	15148.4	15749.3	3793.3	11956.0	6920.9	5053.1
1993/94	33567.4	19580.8	14016.6	2393.6	11623.0	9163.6	2459.4
1994/95	39060.0	24575.2	14484.8	3937.1	10547.7	7312.3	3235.4
1995/96	46542.4	27893.1	18649.3	4825.1	13824.2	9463.9	4360.3
1996/97	50723.7	30373.5	20350.2	5988.3	14361.9	9043.9	5318.3
1997/98	56118.3	32937.7	23180.4	5402.6	17777.8	11054.5	6723.3
1998/99	59579.0	37251.0	22328.0	4336.6	17991.4	11852.4	6139.0
1999/00	66272.5	42893.8	23378.7	5711.7	17667.0	11812.2	5854.8
2000/01	79835.1	48893.9	30941.2	6753.4	24187.8	12044.0	12143.8
2001/02	80072.2	50445.5	29626.7	6686.1	27440.7	7698.7	15241.9
2002/03	84572.3	56229.8	28342.5	8372.3	19970.2	8950	11020.2
2003/04	89442.6	62331.0	27111.6	11283.4	15828.2	7629.0	8199.2
2004/05	102560.5	70122.7	32437.8	14391.2	18046.6	9266.1	8780.5
2005/06	110889.2	72282.1	38607.1	13827.5	24779.6	8214.3	16565.3
2006/07	131851.0	86135.5	45715.5	15946.0	29769.5	10331.0	19438.5

Source: Budget Speeches, MOF, GON.

In this fragile Nepalese economic environment, how is VAT faring is the main concern here. There are several research questions which are given below:

- a) Is VAT superior to sales tax?
- b) Is present administration system of VAT sufficient to satisfy the need of the nation?
- c) Is there any significant change being observed in the revenue collection after implementation of VAT?
- d) How can VAT be made the backbone of Nepalese tax system?
- e) What is the practicing scenario of VAT in Nepal and what are the key problems of VAT implementation and possible correction measures?

1.4 Objectives of the Study

As even the title suggests, the main objective of this study is to ponder into theoretical knowledge of VAT and to analyze the practical aspects of the implementation of VAT in Nepalese context. The general objective of the study is to examine the various issues relating to VAT and to provide useful views as well as suggestion. However, specific objectives of the study are:-

1. To examine the administration system of the VAT specially in the Kathmandu valley
2. To find out the change in revenue structure after and before the implementation of VAT.
3. To explore the practice scenario of VAT in Nepal.
4. To find out the contribution of VAT in GDP, total revenue and tax revenue.
5. To identify the major problems of the effective implementation and suggest possible correction measures.

1.5 Significance of the Study

The scope of the study is to explore the practical scenario of VAT. In addition, it also finds out the contribution of VAT to Gross Domestic Product with the help of data since the VAT was implemented in Nepal. Moreover this study reveals comparative position of revenue yield before and after the VAT was implemented in Nepal. This will evaluate the effectiveness and shortcomings of VAT in Nepal. As another objective of this research is to find out the problem of effective VAT implementation and its possible correction measures. So the research is significant in the sense that its thorough study may facilitate the government making policy and solving the implementation problems and VAT relate issues. It may be helpful for the businessmen and the consumers as well who are still lost amid the confusion about the proper implication of VAT. They will also keep themselves informed about the current condition of VAT implementation in Nepal. It will help other researchers as well who are interested in doing research in this particular topic “VAT in Nepal”.

1.6 Limitations of the Study

The study has very limited area of investigation. It is only a part and partial analysis of the corpus of Tax system. The comprehensive study of the tax system is not possible in this research work due to its certain deadline for completion. The history of VAT is not so long in Nepal. When talking about VAT, it implicitly concerns the corpus of the taxation like income tax and others, but this study would not go that far. The information and data were collected from the IRD office, MOF and other concerned offices. Most of the data were taken from Economic Survey: 2006/07. Due to time and resource limitation mainly secondary data were used in this study. So, it is largely dependent on the reliability of secondary data. The amounts of VAT before and after implementation of VAT were computed by adding sales tax, contract tax, entertainment tax and hotel tax. The literature on VAT is inadequate and scattered. These all constraints have limited the boundary of the study. Despite such limitations, the attempt has been made to make it profitable.

- (i) This study has been concentrated about the study of Value Added Tax in Nepal.
- (ii) It is not a complete study of the whole tax system in Nepal.
- (iii) Mainly secondary data has been used.
- (iv) The views of respondents are collected only in the Kathmandu Valley.
- (v) Due to time and resource constraints, this study extends up to the period of 2006/2007 only.
- (vi) This research has been conducted to fulfill the requirements of MBS course within a prescribed time.

1.7 Organization of the Study

This study is divided into five chapters. Prior to the body of the thesis, several pages of preliminary materials such as title page, Viva-voce sheet, Recommendation, Declaration of the researcher, Acknowledgements, Table of contents, List of tables, List of figures and Abbreviations used have been included.

The first chapter is introduction which includes background of the study, brief description about Value Added Tax, statement of the problem, objectives of the study, needs and significance of the study, review of literature and limitations of the study.

The second chapter is the review of related literature which includes concept of Value Added Tax, Historical Background of VAT in Nepal, Legal Provision for VAT and review of related previous studies.

The third chapter is research methodology. This chapter includes the detail framework of the study, such as research method of population and sample, variable, research design, data collection procedure and presentation and analysis tools and techniques.

The fourth chapter comprises data presentation & analysis of data. In this chapter the primary and secondary data collected from various sources have been presented in a systematic format: such as tables, charts, and figures. These collected data have been analyzed by using different mathematical, statistical and analytical tools. In addition to that, the major findings of the study have been presented.

The fifth and the last chapter is concerned with the output of the study in the form of summary, conclusion and recommendation. This chapter consists of summary of the major findings of the study, concluding it with major recommendations and suggestions for future improvement and betterment of VAT in Nepal from both administrative and revenue perspective which may be a good reference to the VAT administrators, consumers, students, researchers and other professionals in the field of taxation in general and VAT in particular.

At the end of the study, bibliography and appendices have also been incorporated.

CHAPTER - II

REVIEW OF LITERATURE

2.1 Conceptual Framework

2.1.1 Introduction to Value Added Tax (VAT)

Value Added Tax is the most recent innovation in the field of taxation. Actually, VAT is considered one of the most important tax reforms of the second half of the twentieth century. It is a scientific tax system, which was first introduced in 1954 in France. VAT is a family member of indirect tax. Indirect tax is primarily so called because the real burden of tax under this type can be shifted forward to the consumers or in other words, it is not borne directly by the person who pays it. As long as the burden of the tax can be shifted forward, it is indirect. To obtain the exact definition of VAT, the following section gives its practical and precise meaning as implicit in the definition of various experts and institutions.

2.1.2 Meaning of VAT

Different experts and institutions have attempted to give the meaning of VAT according to their own interpretations. Here some of their definitions may be studied. In the words of Ishwar Bhattarai & Girija Koirala,

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 consumer. 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 consumer). As VAT is intended as a

tax on consumption, exports (which are, by definition, consumed abroad) are usually not subject to VAT or VAT is refunded. (Bhattarai & Koirala, 2007: 321)

According to economy watch website,

Value Added Tax, popularly known as 'VAT', is a special type of indirect tax in which a sum of money is levied at a particular stage in the sale of a product or service.

(Source: www.economywatch.com/business-and-economy/vat.html)

According to Wikipedia Website,

Value added tax (VAT), or goods and services tax (GST), is tax on exchanges. It is levied on the added value that results from each exchange. It differs from a sales tax because a sales tax is levied on the total value of the exchange. For this reason, a VAT is neutral with respect to the number of passages that there are between the producer and the final consumer. A VAT is an indirect tax, in that the tax is collected from someone who does not bear the entire cost of the tax. To avoid double taxation on final consumption, exports (which by definition, are consumed abroad) are usually not subject to VAT and VAT charged under such circumstances is usually refundable.

(Source: en.wikipedia.org/wiki/Value_added_tax)

According to *Rup Bahadur Khadka*,

Value Added Tax is not an additional tax, but has replaced taxes such as sales tax, hotel tax, contract tax and entertainment tax that used to be levied on the sale of goods and services. (*Khadka, 1997: 11*)

From the above definitions, it is obvious that VAT is an indirect tax which is the newest and significant experiment done on the modern tax system. Like its predecessor, i.e. the sales tax, VAT is also levied on the sale of goods and services (GST). VAT is a broad-based tax as it also covers the value added to each commodity by a firm during all stages of production and distribution. It is a modern tax system to improve the collection of taxes, to increase efficiency and to lessen tax evasion.

VAT is a modern and scientific tax system. It is not similar to customs, excise duty or sales tax that have borne the traditions or historical heritage. It is not a tax that has been improved and amended and accordingly inserted and deleted. It is a tax of the 21st century since it is highly developed and refined. It is a tax that suits the present speed of knowledge, development and skill. Moreover, it confirms with the present context of liberalization, privatization and globalization. It is easily adaptable with the open economy system and matches with the private sector and the market economy of the present day. It is a tax that is transparent and has an in-built system of self-control. There can be no difference of opinion on the above facts.

In summary, the value added tax system is designed to address various problems associated with the conventional sales tax system. It is a tax that has developed as an alternative for the traditional sales tax. That's why it is also called improvised version of sales tax (*IRD & VAT Project, 2001: 95*). As clarified by Chandra Mani Adhikari, It is also an improved and reformed sales tax (*Adhikari, 2003: 6*). In sales tax, there is no provision for input tax credit, which means that the end consumer may pay tax on an input that has already been taxed previously. This is known as cascading and leads to increases consumer tax and price levels, which increases the rate of evasion and can be detrimental to economic growth. In contrast, the VAT that has been levied in the previous level can be deducted while paying taxes on the later levels. It has a special system where a person trying to deceive tax will be caught on either one of the subsequent levels. Therefore, the trend of tax evasion is highly discouraged.

2.1.3 Types of VAT

There are three possible types or variants of VAT: the product-type (P-VAT), the income-type (I-VAT), and the consumption-type (C-VAT). The meaning of these three variants of VAT can be best understood by comparison of income and expenditure aggregates in the national income accounts. Expenditures on the gross domestic product (GDP) consist of final private consumption expenditure (c), gross investment expenditure (I), final government non-wages expenditure on goods and services (G_c) government expenditure on wages and salaries (G_w), and the trade balance (the values of exported (x) less imported (m) goods and non factor service) (*Howell, 1995: 86*).

$$\mathbf{GDP = C + I + G_c + G_w + (x-m)}$$

While gross domestic income (GDI) is the sum of factor income payments (wages, interest, profits, etc) - commonly referred to as the value added (v) of production - and depreciation (D)

$$\mathbf{GDI = V + D}$$

Above equation can be stated in terms of either factor cost (i.e., exclusive of indirect taxes net of subsidies) or market price (i.e., inclusive of indirect taxes net of subsidies)

A. Product Type VAT (P-VAT)

Broadly speaking a P-VAT taxes all expenditure (except government wage expenditure, which is infeasible to tax under any variants of VAT) on GDP if implemented on the origin principle, and on GDP adjusted for the trade balance if implemented on destination principle. This variant does not allow the deduction of depreciation from the tax base in subsequent years either. Assuming for the time being that the origin principle is employed, so that exports, being of domestic origin, are taxed but imports, whose value originated from abroad, are not. Then the base of a P-VAT is simply the sum of all expenditures on GDP (hence its name as a product type VAT) net of government wage expenditure. This base can be expressed as follows: (*Howell, 1995: 86*)

$$\mathbf{Base\ of\ P-VAT = GDP - G_w = C + I + G_c + (x - m)}$$

B. Income Type VAT (I-VAT)

Gross investment expenditure, which is part of the base of a P-VAT, reflects an economy's actual aggregate expenditure on capital goods (i.e. gross capital formation) in a given period. Part of this expenditure, however, is used to compensate for capital goods that have been consumed or depreciated. While depreciation as such is merely a book-keeping entry and does not represent an actual economic transaction, it does affect the computation of profitability, and thus the value added, of business. An I-VAT excludes depreciation from its base. It therefore taxes the net, rather than the gross, investment expenditure (*Howell, 1995: 86*).

$$\mathbf{Base\ of\ I-VAT = GDP - G_w - D = C + (I - D) + G_c + (x - m)}$$

C. Consumption Type VAT (C-VAT)

If, in addition to depreciation, expenditures on capital goods, which contribute to a net augmentation of the capital stock are also not taxed, then the entire gross investment expenditure would in effect be excluded from the tax base. The resultant base would be the base of a C-VAT:

$$\text{Base of C-VAT} = \text{GDP} - \text{G}_w - \text{I} = \text{C} + \text{G}_c + (\text{x} - \text{m})$$

In this way, the variants of VAT differ in its treatment of capital goods. Among these three types of VAT, the consumption variant is the most superior form of VAT and is universally practiced. The reasons for the popularity of this type are as follows:

- This variant doesn't affect decision regarding investment and growth since it relieves investment from any tax burden
- Likewise, the consumption variant is attractive from point of view of tax administration as there is no need to distinguish between the purchase of intermediate goods and capital goods under this variant which is necessary under the other two variants. Unlike the consumption variant, the other two variants stimulate firms to classify their purchases of capital goods as intermediate goods leading to complication for the administration.
- Furthermore, the consumption variant is more attractive than the income variants from the consideration of foreign trade, because the consumption variants are compatible with the destination principle of taxation, which has been used by many countries. Under the destination principle, the tax base is consumption and hence export is relieved completely from VAT.

The consumption variant, thus, possesses several advantages over the income and the product type variants. This is why, the consumption-type variants have been widely used in several countries in Europe and elsewhere in recent years. The Nepalese VAT system is based on this consumption variant. (*Khadka, 1997: 134*)

2.1.4 Methods of Computation of VAT

There are three basic methods by which VAT can be calculate. They are: A. Tax Credit Method, B. Subtraction Method and C. Addition Method. The first two methods are frequently used while the third method, Addition Method, is rarely used.

A. Credit Method

This method is also called the Invoice Method. Under this method, tax is levied on the total value of sales and it requires that the amount of VAT charged be explicitly stated on the invoice associated with any taxable transaction. The amount of tax merchant submits of tax authorities is simply the difference between the tax collected on his sales and the tax he paid on his purchases (*Khadka, 1997: 6*). Since the value added (VA) is sale value (SV) minus cost of purchased inputs (CPI), a given tax rate, say (t), the tax revenue (T) will be -

$$T = t.SV - t.CPI$$

Since business is required to state the tax on invoices under the tax credit method, it facilitates border tax adjustments. This implies that the amount of tax that levied on export can be refunded to exporters. Similarly, this method is effective under the destination principle where exports are zero-rated and the tax credit chain is not broken. It also provides the facility of cross checking.

This method is particularly useful if it is desired to reduce the rate of value added tax at certain stage in the process of production and distribution. Since this mechanism puts an equal burden of taxation on both imports and domestic products, it is further preferred. The tax credit method, thus, is desirable for several reasons and has been adopted by many countries of the world.

Nepal has adopted the tax credit method.

The following example may help understand the subtraction method in a better way. Let's suppose an importer imported a cooler for Rs. 20,000.00. VAT was paid on its import. This product passes through three stages before reaching to the final consumer. The value added (profit) by each businessmen on the cost price are :

importer - 30%, Manufacturer - 50%, Wholesaler - 20% and Retailer - 10%. The VAT is calculated in the following table with all the given informations.

Table 2

Calculation of VAT under the Credit Method (in Rs.)

Stages	CPI- VAT	Added Value	SV- VAT	VAT @13%	SV + VAT	VAT
Imported Cooler	20000	-	-	2600	-	2600
Importer to Manufacturer	20000	6000	26000	3380	29380	
Manufacturer to Wholesaler	26000	13000	39000	5070	44070	1690
Wholesaler to Retailer	39000	7800	46800	6084	52884	1014
Retailer to Customer	46800	4680	51480	6692.4	58172.4	608.4

B. Subtraction Method

Under this method, each merchant's tax liability is computed by applying the applicable VAT rate to the difference between his total sales (inclusive of the VAT element in his sales price) and his total purchases (inclusive of the VAT element in his purchase price). Hence, unlike the credit method, the amount of VAT connected with a taxable transaction is not required to be explicitly stated on the associated invoice (*Howell, 1995: 94*). This method is appropriate for the consumption variant of VAT. The tax revenue under this method can be calculated by using this formula.

$$T = t(SV - CPI)$$

Table 3

Calculation of VAT under Subtraction Method (in Rs.)

Phases of production and Distribution	Net Purchase Price (CPI)	Net Sales (SV)	Value Added (SV-CPI)	VAT @13%
Raw materials Producer	-	3000.00	3000.00	390.00
Producer	3000.00	4500.00	1500.00	195.00
Wholesaler	4500.00	5800.00	1300.00	169.00
Retailer	5800.00	6500.00	700.00	91.00
Total	13300.00	19800.00	6500.00	845.00

C. Addition Method

Under this method, the tax base is obtained by adding the incomes produced by the firm or by adding the payment made by the firm to the factors of production employed in turning out the product, such as wages, interest, rent, royalties and profits. This method is appropriate for the income type of VAT.

2.1.5 Principles of VAT

VAT can be implemented under either the origin or the destination principle.

A. Original Principle

Under this method, the tax base is obtained by adding the incomes produced by the firm. This implies that all exports are taxable and all imports are non-taxable. Where there is a border and cross-country trade, this principle gets important to imported goods or services over domestic production. Countries with international boundaries do not prefer to have this principle. But in European community (EC) where there is a common border this principle of taxation is essential. The main reason behind not following this principle is of revenue loss. It also discourages the export either directly or indirectly.

B. Destination Principle

The most popular form of principle adopted by a large number of countries is destination principle. Under this principle, goods or services are taxed on at the place where they are produced but the place where they are consumed. This means all imports are taxed while all kinds of goods and services are free to taxation. The main advantage of this principle is non-discrimination between import and internal production. This principle is favorable for promoting export. Many countries follow this principle because they are eager to boost export. Nepal's VAT system is also characterized by the *Destination Principle*.

2.1.6 History and Development of VAT

Tax is collected by government to meet the need of budget. Among the various types of tax, the sales tax is one of the major sources. VAT is the most scientific system of sales tax. In the early days, the tax from the consumption and production is collected as sales tax. But now, it is almost completely replaced by the VAT. The concept of VAT was introduced in 1919 by Dr. Wilhem Von Sieman in Germany. This concept was brought to replace the "Usnatzsterller" (multi stage sales tax) due to its undesirable effects, particularly cascading and vertical integration of the latter tax (MST) for the first time. The Germany knew the administrative complication of the VAT system. So, it has the fear to implement. Therefore, the rate of unsatzsteuer is reduced instead of the implementation of VAT. In 1921, the America was implementing the corporate income tax. Pro. Thomas S Admas suggested the tax for the United State of America to replace the existing tax system. Until early 50s the development of VAT remained limited only in the theory.

France was the first implementer of VAT in 1954 covering only in the industrial sector. The VAT was limited to only up to whole level. But these countries limited the VAT only on import and manufacturing stage.

In late 60s, VAT started to become popular. Countries like Denmark and Brazil adopted this system of tax in 1967. France, the first implementer of VAT, extended it to the retail level for the first time. And Germany also adopted VAT in the same year. In 1969, the countries like Netherlands and Sweden also adopted VAT in their countries. In 1970, 1971 and 1973, Luxembourg, Belgium and Ireland introduced the VAT respectively.

In Asia, Vietnam was the first country to introduce this most scientific tax system. The country adopted VAT in 1973. The trend being VAT popular was increasing all over the world. In 1977, 1984, 1985, 1986, South Korea, China, Indonesia and Taiwan introduced VAT respectively. Similarly, VAT was introduced by Philippine in 1988, Japan in 1989, Thailand in 1992 and Singapore in 1994.

In SAARC region, Pakistan was the first adaptor of VAT. It implemented VAT in 1990. India introduced VAT first as modified value added tax (MOD VAT) in 1996. But actually in India, VAT replaced sales tax on 4 January 2005. Though some state did not opt for VAT (for political reasons), majority of the state embraced VAT, states like Andhra Pradesh and Maharastra taking the lead. The Empowered Committee,

constituted by Government of India, provided the basic framework for uniform VAT laws in the states but due to the federal nature of Indian constitution, States do have a liberty to set their own valuations for the VAT levied in their own territory. India introduced the full VAT in some prescribed regions of the country on April 1, 2005. Around 130 countries have introduced VAT system across the world. The list below shows the chronology in which VAT was implemented in different countries.

Table 4

Implementation of VAT in different countries in the chronological order.

Year	Countries that have started adopting VAT
1954	France
1960	Ivory Coast
1961	Senegal
1967	Brazil, Denmark
1968	Germany, Uruguay
1969	Netherlands, Sweden
1970	Ecuador, Luxemburg, Norway
1971	Belgium
1972	Ireland
1973	Austria, Bolivia, Italy, United Kingdom, Vietnam
1974	Argentina, Chile, Colombia, Costa Rica, Nicaragua
1976	Honduras, Israel, Peru
1977	South Korea, Panama
1980	Mexico
1982	Haiti
1983	Dominican Republic, Guatemala
1984	People Republic of China
1985	Indonesia, Turkey
1986	Morocco, New Zealand, Nigeria, Portugal, Spain, Taiwan
1987	Grenada, Greece
1988	Hungary, The Philippines, Tunisia
1989	Japan, Malawi
1990	Iceland, Kenya, Pakistan, Trinidad and Tobago
1991	Bangladesh, Benin, Canada, Jamaica, Mali, Algeria, South Africa, Armenia, Azerbaijan, Cyprus, EL Salvador, Estonia, Fiji, Kazakhstan
1992	Tajikistan, Belorussia, Kyrgyzstan, Russia, Thailand, Turkmenistan, Ukraine,

	Uzbekistan, Moldova
1993	Burkina Faso, Czech Republic, Paraguay, Poland, Romania, Georgia, Slovak Republic, Venezuela
1994	Bulgaria, Finland, Lithuania, Singapore, Western Samoa, Madagascar, Niger
1995	Gabon, Ghana, Switzerland, Zambia, Malta, Latvia, Liechtenstein, Mauritania
1996	Albania, Belize, Guinea, Uganda
1997	Barbados, Congo, Nepal
1998	Croatia, Mongolia, Sri Lanka, Tanzania, Vanuatu, Surinam, French Polynesia
1999	Cambodia, Cameroon, Mozambique, Netherlands, Papua New Guinea, Slovenia, New Jersey
2000	Australia, Chad, Macedonia, Namibia, Sudan
2001	Botswana, Rwanda
2002	Lebanon
2005	India*

Source: The VAT Project Office (Revenue Administration Support), IRD, IRD/DANIDA, 2001: 3-4)

*India has implemented Modified VAT since 1986. This system is not exactly a VAT system. The system was introduced to refund excise duty paid on inputs.

2.1.7 Reasons for the increasing popularity of VAT

VAT is definitely a new and modern tax as compared with other traditional tax systems. Actually, VAT is thought of being the most important tax reform in the 21st century. Of all the indirect taxes that evolved in the past, VAT is by far the best tax system. By contrast, other tax system had never risen into prominence in such a short span of period.

Ever since its introduction in France around 1954, VAT has gradually and promisingly won the heart of people and is currently implemented in about one hundred and thirty countries.

Several other countries, which so far have not adopted VAT are trying to make necessary changes in their fiscal policies and laws to assimilate and accommodate this scientific tax system into their economic set up.

Although VAT is out and out a new system as compared to other traditional tax system, its popularity is growing fast. It is a precondition that any European countries must have

already adopted VAT to become a member of EEC. This precondition plays a vital role in the popularization of VAT. In addition to them, there are some factors that are attributed to its growing popularity.

1. VAT is neutral with respect to the choice of method of production and distribution. Since the tax is levied only on the value. It is efficient too. An efficient tax system is one that does not cause any distortions in production and consumption. In other words, such a tax system does not bring any unintended and undesirable effects in the methods of production and distribution or in consumption.

Added at each stage in the system, tax liability remains the same regardless of the system of production and distribution. Total tax paid on a given commodity depends on the rate of tax and on the total value added (i.e. the final price) of the commodity but not on the number of states through which it has passed. Since VAT does not interfere with the optimal allocation of means of production, it is considered neutral. All other forms of sales tax are distorted since they bring unnecessary and intended changes in the method of production and distribution. VAT is, thus, superior to other forms of sales tax on the ground of efficiency since this tax is neutral with respect of method of production and distribution.

Likewise, VAT is neutral with respect to consumer's choice too. VAT does not affect the relative price. Consequently, there is no need for the consumer to shift from one commodity to the other as responsive to tax.

Thus VAT does not affect the preference of the consumer. It also avoids probable distortions of the optimum allocation of resources. All other form of sales taxes is not neutral in respect to consumer's choice.

2. Another feature of an ideal tax system is equity. VAT is more equitable in the sense that it falls equally on all goods that gather a different proportion of value added at various stages.

VAT is also attractive from the point of view of foreign trade considerations. Exports are commonly relieved from taxation in order to maintain the competitive power of domestic manufacturers in the international market. This promotes exports and increase global competitiveness. That is why, the tax levied on exports is refunded to exporters. It is possible to refund the exact amount of tax levied on exports under VAT. It is difficult to refund the exact

amount of tax levied on exports under other form of sales tax system except the retail tax.

Another reason for the growing popularity of VAT is that this tax avoids the problem of cascading or pyramiding. Under VAT system especially when the invoice method is adopted, the exact amount of tax can be shifted forward to the consumer.

3. One of the desirable features of a good tax system is the revenue productivity. VAT is popular from the revenue point of view. VAT is well known in the world for its effective revenue generation. It is important instrument for the mobilization of recourses. There is tremendous scope for increasing the revenue from VAT. it offers greater revenue potentiality as compared to other forms of sales taxes. VAT is an improved version of sales tax, which has the virtue of mobilizing substantial amount of revenue. Hence, VAT has become an important source of revenue on many developing as well as developed countries. It yields more than 20 percent of tax revenue.
4. Furthermore, VAT is favorable from the administrative point of view also. VAT is favored on the ground that, as the base of this tax is broad, a relatively low rate can produce the required revenue. Low rate reduce the possibility of tax evasion. Since the tax burden is distributed among a large number of taxpayers under the VAT system, it does not put a heavy burden on a taxpayer and hence avoids the chance of considerable tax evasion. The built-in control nature of VAT makes tax evasion more difficult. VAT is thus, better in this respect than other forms of sales taxes

In summary, VAT is a modern and transparent tax. It is less distorted and more revenue productive. That is why this tax has become a popular topic for tax reform and has been spreading all over the world since the late 1960s. The attractiveness for VAT across the nation has proved that it is preferred not merely for raising revenue but also its avoiding multiple distortions as created by other forms of sales tax. In the process of economic liberalization and globalization. VAT makes the tax system flexible and the bracket widen. All this indicates that the VAT is the tax system of the present day.

2.2. VAT in Nepal

2.2.1 History and Development of VAT in Nepal

In the eighties, various countries, to maintain a sound macroeconomic policy, adopted various types of reform programs. This program was in swing in 1990's. As the adoption of reform program was at the heart of worldwide policies. Nepal was no exception. The Nepalese government revealed its intention for the adoption of various reform programs to promote market oriented economy in the Eighth Plan (1990-1995) document. In a process to reform tax policy, it has mentioned that some time in the mid-plan period a VAT will be introduced in the country. Before that VAT was completely unknown word to the general people of Nepal. After a restoration of democracy in 1992/93, a two-tier sales tax system was in function at that period

Under this system dealers and distribution of nine-selected items were required to register for sales tax purpose and collect tax on their sales. It was extended further to five more items in 1993/94. Only the amount of tax paid to manufactures was allowed to credit. Further, sole distribution or agents of the foreign firm or companies and their wholesalers were also required to register for the purpose of collection of sales tax.

As a part of its liberal economic policy, the government of Nepal asked donors to study the VAT system. Finally a VAT task force was created in the Sales Tax and Excise Department in 1993. United States Agency for International Development (USAID) and Consultancy Assistance for Economic Reform for International Development (HIID) started the study in order to make the necessary preparation for the introduction of VAT. The task force was fully devoted to accomplishing preparatory work. It prepared the draft for VAT legislation, organization, staffing and exemptions. Due to political instability and frequent changes in the priority for the implementation of VAT, the task force could not continue its job. At the time of creation of task force, the Nepali congress was in absolute majority in the parliament.

A mid-term poll changed the political scenario. The United Marxist-Leninist (UML) party created a minority government whereas the Nepali congress became the opposition party. The government led by UML could not reveal its positive attitude towards the implementation of VAT. In the contrary, the two-tier sales tax was declared to be removed in its 1994/95 budget. This negative step hurt the donor agencies and

consequently the USAID suspended its support and Harvard Institute for International Development's experts returned. The VAT task force was dismantled.

Soon after the verdict of the Supreme Court to re-install the dissolved parliament, a coalition government led by Nepali congress, formed and it showed as earlier, a firm commitment to introduce VAT in its F/Y 1996/97 budget. The USAID resumed its support but the amount allocated for the study of VAT had already been transferred to other projects. Again, scarcity of funds is realized by the government and search of the donor who can provide the necessary funds and technical assistance for the implementation of VAT. After all, the DANIDA supported the VAT project. It is continuously supporting till now.

As a part of preparatory work, the VAT Act was passed in 1996 by the parliament. The government in 1997 approved VAT Regulations. In the same year, the department of Sales Tax and Excise were renamed as the Department of Value Added Tax (VAT). After a year, the Ministry of Finance approved nine volumes of manuals. Further more, VAT Taskforce organized a various discussion and interaction program related to VAT in different parts of the country. Various introductory brochures were published and distributed to the potential taxpayers, businessmen and the administrative staffs.

The VAT was initially scheduled to be effective from July 1997. The government was planned to register the potential taxpayer in VAT from this period. In support of VAT, the government decided to rationalize the tax structure by reducing the rate of income tax, sales tax and custom duties in advance. The VAT was to replace the Hotel Tax, the entertainment Tax and the Contract Tax. For this purpose the VAT task force was preparing its work in accordance with the schedule. Meanwhile the private sector of business field opposed the government policy on adoption of VAT. Nepal Chamber of Commerce held a nation wide discussion program among traders, businessmen, industrialists and their representative association in March 1997 to collect the attitude towards the introduction of VAT in Nepal. Most of the business community showed their dislike to the VAT which was scheduled to be operated from two months later.

Business persons protested the decision of the adopting of VAT with the slogan "NO VAT" issue of VAT resulting in a conflict between the government and the private sector. Confrontation continued for a long time. Accepting the increasing pressure of business sector, finally the government decided to postpone the date of application for four months. The government also announced the date for the VAT to be effective from

November 16, 1997. With a view to facilitating the functioning of VAT the government made an arrangement in the budget for F/Y 1997/98 to convert the Hotel tax into the Sales tax. The rate of the sales tax reduced from 15 percent to 10 percent. Further the rate and the slab of income tax and customs duty were also lowered. The government took a heavy revenue risk by curtailing the rate and structures of various taxes without prior demand of the taxpayers.

Whatever reasons were laid for the postponement of the effective date of VAT, the preparatory team got a very valuable time for the preparation of VAT. The government and its associated body tried to convince the business community in favor of VAT. It was really a very hard work to implant VAT without the dull cooperation of business community. The VAT project, Ministry of Finance as well as Department of VAT devoted the extended period of making friendly relations by providing more training, information campaign meetings, talk program and interaction program between different groups of people.

In the mean time the business group was also divided into two groups. Industrialist was in favor of VAT whereas the trading group was against it. Despite heavy protest by the trading group, the government implemented the VAT from the scheduled date of November 16, 1997.

Even after the adoption of VAT the days were not as easy as expected. Trading businessmen were completely against the VAT whereas industrialists were in favor of it with heavy concession on various taxes. The government announced all the concessions without prior plan in budget speech four months before the date of VAT implementation, which could not motivate the businessmen. On the one hand the businessmen enjoyed the privilege provided by the government for the successful enforcement of VAT, on the other they continued to protest against VAT.

Political situation was also volatile. The government was in a pressure to quit. As usual, the businessmen were against VAT. Industrialists were in favor of further concession in tax regime that was against the principle of VAT. VAT administrators were not fully aware of its system. Due to various reasons VAT could not function as expected. The business community demanded the continuation of all exemptions and incentives granted under the sales tax system.

Businessmen were also very angry at the function of octroi, a local tax. FNCCI, a apex body of private sector, decided on February 4, 1998 that they would not sit for negotiations with the government regarding the implementation of VAT unless the government scrapped out octroi.

On March 1998, the government and the private sector reached an agreement regarding the modalities of the implementation of VAT. Exemption of industrial machinery and tractors, soft behave towards the retailer, acceptance of the bill value in import point, set up a committee in order to review the VAT law and establishment of permanent revenue board where the main agreement. Since most of the agreed points were not activated the businessmen again began to oppose VAT. A series of discussion took place before the presentation for the F/Y 1998/99 budget. The demands of Businessmen were increasing considering the volatile situation of the political party. The government requested for the agreement but the businessmen rejected the proposal and did not sign in agreement. Even though the government addressed few issues that were asked by the businessmen, Finance Bill 1998 incorporated following changes.

- The threshold was increased from Rs. 1 million to Rs. 2 million.
- Cottage industry got relief from the registration in VAT.
- A special arrangement to be provided to settle the old stock of businessmen.
- The rate of interest was reduced to 15 percent form 18 percent.
- The ate of penalty of the late filing of return fixed at 0.1 percent per day instead of 100 percent
- Tax offices were empowered to issue a tax assessment if tax prayer cannot justify the reason for under invoicing.
- Firms, companies and industries are required to issue serially numbered invoice with their names and addresses. The VAT administration may inspect, with prior approval of the DG of the VAT Department, the books of accounts of unregistered vendors in connection with VAT, and may penalize if the books of accounts are not maintained properly.
- A list of exempted items increased.

Despite above mentioned provision, the government also announced the several measures in the field of income tax, customs duty and revenue investigation with a view to rationalize the tax in accordance with VAT principle. Provision of some curative measures provided for the simplification of tax collection irritated businessmen more than were attracted towards it. They continue to oppose the VAT system vigorously.

Finally both parties agreed not to implement the provisions provided by the Finance Act until they reached an agreement. Ultimately, both parties agreed on 39 points on September 1998. Most of the agreement was in connection with the further exemptions and concessions in various fields VAT as well as to the taxes. Few of them were in adverse direction of VAT principle.

VAT administration had allocated a TPIN (taxpayer identification Number) consisting of nine digits to registered taxpayer with a view to process data in computer. It was developed as per international standard. Last ninth digit was for checking the accuracy of the number, which is called check number. All the records of taxpayer are stored in the computer in database format. As the computer processed all the data of taxpayer, it has become an integral part of VAT administration. Before that all the records were kept manually.

In accordance with the purpose of integrating VAT and Tax department into one department from coming year a provision was made in Finance Act, 1999 that “A PAN (Permanent Account Number) was allocated to the registrant of income tax from the next fiscal year”. For this purpose a Taxpayer service center established under the department of Tax. PAN was also similar to TPIN. Those tax payers who have already received the TPIN were converted to PAN with same number. The service of this center was only confined to nine offices of Kathmandu valley.

Issuance of PAN was accessed to all tax prayers of the country from December 16, 1999 after the establishment of Inland Revenue Department (IRD). For the simplification of management of date, a database computer system has been developed since the inception of VAT in Nepal.

With a view to provide al the services from the same window and to make effective mobilization of internal resource, the government decided to integrate the Department of VAT and department of Tax. The department of VAT merged into department of Tax on April, 2000. Through the budget speech for F/Y 2001/02, the government announced to establish “Inland Revenue Department” from July 2000.

Before the merger, there were 17 offices under the VAT Department and 41 offices under the Tax Department. To over the whole kingdom of Nepal, al those offices merged together and established 21 offices on the basis of including geographical region, number of taxpayer, taxpayer services and potentially of tax collection.

Out of them, four offices were classified into “A” class, two into “B” class, five into “C” class, five into “D” class and five into “E” class. Officials and staffs were reorganized according to its work load. The newly established department will administer the following taxes from the same window.

1. Income tax (individual and corporate income tax, Remuneration income tax, interest tax, house rent tax.)
2. Value added tax.
3. Non-tax (dividend, principal and interest payment, royalty, charges and fees)
4. Other related charges and fees related to excisable goods.

VAT has been justified in the light of government fiscal imbalances and need for extra revenue mobilization through an efficient tax system. The Government of Nepal has increased VAT to 13% effective from Magh 1, 2061.

2.2.2 Basic Features of Nepalese VAT system

The type of VAT adopted by Nepal is conventional similar to that implemented over 130 countries around the world, it has injected some special features into the VAT system to make it uniquely Nepalese. The following are the main features of the Nepalese VAT system:

The adoption of consumption type of VAT because VAT is finally borne by the consumer

- The consumption of VAT through tax credit method.
- The principle of destination.
- The level of threshold is Rupees 2 million.
- The facility of tax refund
- The application of VAT to all business turns over through the retail stages.
- The rate of VAT is single and positive @ 13%
- The provision of exemption and zero rate for the goods and services
- The allowance of tax credit for taxable supplies including the zero rate supply
- Small entrepreneurs are exempted to register in VAT office.
- Self assessment system.

2.2.3 Coverage of VAT in Nepal

VAT is a tax on goods and services consumed in Nepal. The tax is based on the principle that each producer or distributor adds value, in some way, to the materials they have purchased and it is this added value that is taxed at each stage of the production and distribution. The coverage of VAT in Nepal is based on transfer, sales, supply, import and export of goods and services except some special provisions. It is levied on the value added at each stage of the production or distribution. Every persons or firms or companies who are involved in such transaction liable to pay and collect tax. The actual coverage is structured by the standard and zero rates as well as tax exempted provisions. In other words, tax coverage is guided by tax invoice system. VAT is administered by invoice method.

2.2.3.1 Standard Rated Areas

Nepal has adopted “Inclusive Basket System” which means board-based tax coverage. Under this system all transactions regarding transfer, sales, supply, imports and exports of goods and services, where value added exists are taxable, except some special provisions. The Value Added Tax Act 1995 has made provision for exempted goods and services under special law. Unless this provision, all the value added economic transactions are taxable and tax is collected at the rate of 13 percent. This is called standard rated area.

2.2.3.2 Zero Rated Areas

Under the VAT system some goods and services are, or may be, taxed at zero-rate. The objective of this zero rate is to relieve some goods and services from taxation working under regular VAT system and net for the purpose of promoting and encouraging export and maintaining diplomatic behaviours. Under this, purchaser is allowed to credit the tax paid on inputs or purchase in concern. However, one has to maintain all records regarding VAT. the VAT is meant to apply only to the consumption of goods and services in Nepal. Supplies made in Nepal that are exported are taxable at zero-rate. Exporters are allowed to claim input tax credits for VAT paid or payable on purchases of goods and services relating to their commercial activities. Exports taxed at zero percent (0%) include exports of both goods and services.

2.2.3.3 Exempted Goods and Services

Under VAT system all goods and services are divided into two basic categories: taxable and tax-exempt. Goods and services are either taxed at the standard rate of 13 percent or they are taxed at zero percent. Those taxed at the standard tax include all goods and services except those that are specified as taxed at zero percent or tax-exempted. According to VAT Act 1996, the purchaser will not pay VAT on tax-exempt goods and services and the supplier is not allowed input tax credits on purchases related to the following goods and services. The table showing the goods and services exempted from VAT is given in the Appendix II:

2.2.4 Tax Administration

In general the prime goals of VAT administration are to promote voluntary compliance and to promote the VAT revenue by effective, efficient and economic way. Identification of tax payers, tax registration, processing of returns, tax audit, assessments, collection, credit, refund and control of stop filers are main functional areas of tax administration.

In the Nepalese periphery, Ministry of Finance is the main responsible body for collecting financial resources and managing the public expenditure. Department of Customs, Revenue Administration Training Centre, Department of Revenue Investigation and Inland Revenue Department are the wings of Ministry of Finance. Previously the VAT was administered by Department of Value Added Tax. By 2001-2002, the government merged the Department of Taxation and the Department of Value Added Tax and named it "Inland Revenue Department (IRD)". IRD is currently responsible for the administration of the taxes like Income Taxes, Corporate Taxes, Value Added Tax, Excises and certain fees and duties like Entertainment fee, Film Development Fee, Tourism Development Fee, Liquor control duty, Smoking liquor duty, special fee, etc. Likewise the department is also responsible for monitoring the non-tax revenue of the Government. This Department is located in the Kathmandu Valley. Under IRD there are 21 Inland Revenue Offices through the country. These offices and department jointly administer the VAT as well as income taxes. The Government of Nepal has the authority to appoint Tax officers in required numbers. Similarly, the jurisdiction of a Tax officer should also be prescribed by the Government.

All the tax officials are the civil servants under the revenue service. Thus, IRD is the authority to mobilize inland revenues including VAT.

The IRD has functional organizational structure. From operational point of view it has been divided into two wings. One is policy related and other is operational wing. The operational wing contains six functional works and these are taxpayer service, tax audit, investigation, collection, tax refund and others. Similarly policy related wing contains the sections related to personnel administration. The Government of Nepal may delegate tax administration related authority to other government officer. Similarly the VAT Act has provided the authority to the Government to define the jurisdiction of tax officers. Thus the department carries out the functions such as tax administration, making tax policy, tax treaty and International taxation, review and appeal related tax matters, advance ruling, tax enforcement and investigation, tax audit, tax refund, excise and liquor administration, tax payer services. (Adhikari, 2003: 30-31).

2.2.4.1 Registration (VAT Act 2052: sec 10)

For the implementation of VAT it is essential that producers and suppliers liable to taxation register themselves in time. According to VAT Act and VAT related other laws of Nepal, the persons (the suppliers or distributors or producers dealing with taxable goods and services) are required to register in the concerned Inland Revenue Office and obtain the TPIN. In other words, the person who gets involved in commercial activities having the turnover that exceeds the given threshold is required to register for the VAT purpose.

A person means an individual, firm, company, association, cooperative, institution, joint business, partnership, trust, government body or religious organization. Similarly those persons who fall below the defined threshold don't necessarily have to register. But if they want, they can register and take TPIN. A non-registrant is not entitled to collect VAT and utilize the facility of tax credit and refund. The TPIN refers to the Taxpayer Identification Number that is to be allocated to each registrant during the registration process. For the registration, first of all the taxpayer should get the prescribed form (in Nepali) from any Inland Revenue Office. The TPIN or PAN is very important regarding the Inland Revenue administration. The taxpayer should include his TPIN in the documents related to VAT office, income tax, customs, imports and exports, and banks. Registration is required for any business with annual taxable sale of more than Rs. 1 million.

Regarding the calculation of turnover zero-rated sales if from it is impossible to identify the purchase, sales, stock, the tax officer may treat all these transactions as turnover and may assess the tax. This mean if the zero rated sales exceed the threshold, taxpayer is liable to register. VAT registrants are required to pay VAT on or before the 25th day following the end of each month. Every taxpayer that is involved in taxable sales exceeding the prescribed threshold is liable to register for VAT before starting their business or 30 days after starting their business. They must provide their customers with a tax invoice and should maintain records and keep their VAT records for a period of 6 years. It is required to give notice and advice to the concerned Inland Revenue Office if any changes to the business such as new address, telephone number or a reorganization of the partnership. They post their Certificate of Registration at their principal place and copies of it at all branches where the customers may easily notice and observe it. They should allow tax officers to enter the business to examine the business records and the stock at hand. (Adhikari, 2003: 31-32)

2.2.4.2 Deregistration (VAT Act 2052: sec 10-2)

A VAT registration may be cancelled by anyone whose total taxable sales for consecutive calendar quarters is not more than Rs. 1000000 and who has been registered for a full fiscal year or by persons who no longer have commercial activities. Regarding the cancellation of registration the VAT Act has mentioned the following conditions:

- If the organization is closed or transferred or collapses in case of corporate body.
- If the business is running under proprietorship with the owner dead.
- If the partnership is dissolved
- If the distributor or producers stops selling or producing taxable goods and services
- If the business was registered by mistake.

Regarding the cancellation, the tax officer collects the tax on the capital and other goods that the tax credit facility has been taken by taxpayer previously. The categories falling under this ground neither are required to collect VAT nor allowed to claim a refund of the VAT that they have in producing their goods and services for sale. (Adhikari, 2003: 34).

2.2.4.3 Accounting (VAT Regulation Act 1996: Annex 8-9)

The effectiveness of VAT depends on the VAT accounting system. It should neither contain unnecessary details nor is inadequate so that it cannot provide appropriate and useful information. The VAT accounting should be information-based as well as less costly. The accounting in VAT consists in the process of maintaining purchase, sales book, VAT account and stock. Thus Purchase and Sales books are the main part of VAT accounting. The Purchase book contains such information as TPIN, the supplier's name with TPIN, The customer's name with TPIN. Similarly in the sales book date, invoice number, name and number of the supplier, purchase price and taxable price of the import, taxable value and the amounts of VAT should be recorded. The Purchase book is a certified register. The registrants should maintain or record all the purchases during the period, all the goods and services either taxable or non-taxable appearing in separate columns. Likewise, the sales book is another main part of VAT accounting. It should be posted on the basis of sales invoices chronologically showing the amount of standard and zero-rated sales amount and the tax amount. At the end of tax period it should be totalled while mentioning the amounts in the VAT account. The VAT account is monthly summary showing the sources of the figures used in the VAT return. In order to complete the VAT return, a taxpayer should need to ensure that the amount of VAT paid on purchase, the amount of VAT collected on sales, a method of distinguishing between taxable and exempt sales, the time of goods and services supplied and proof that goods were exported. (Adhikari, 2003: 35)

2.2.4.4 VAT Invoices (VAT Regulation Act 1996: Annex 8-9)

Every registrant is required to issue a tax invoice to the recipient in supplying any goods and services. The specimen of an invoice has been prescribed in schedule 5 and 6 of VAT regulation 1997. it is necessary to mention seller's PAN, buyers PAN whether it is registered in VAT or not, address of sellers and buyers, date of transaction, date of invoice issue, description and price of goods and VAT amount on the tax invoice issue, description and price of goods and VAT amount on the tax invoice. The invoice must be issued in sequential order for the starting of every fiscal year. A minimum of three copies of each invoice must be raised. First copy must be provided to purchase mentioning tax invoice.

Only retailers are facilitating to issue abbreviated invoice with prior approval of tax officer. It is not necessary to mention details in abbreviated invoice as shown in tax

invoice. It can't be issued for transaction exceeding Rs. 5000 including VAT. It also must be issued in sequential order. It shall be the duty of a registered person to provide a tax invoice who asks for. A recipient who receives an abbreviated tax invoice shall not be allowed to edit the input tax. In an abbreviated tax invoice, tax is calculated by multiplying the sales value by rate of tax divide by adding 100 to rate of tax.

2.2.4.5 Return Filing (Sec 18)

VAT is based on self-assessment system. Tax payer himself calculates all taxes. Every registered taxpayer is required to submit the return to a tax officer within twenty-five days after the close of tax period. Such return must be submitted whether or not a taxable transaction was carried out in that tax period.

Failure to submit return in specified time is penalized;

Nil return or credit return Rs. 1000 flatly.

Debit return 0.05 percent per day of due amount or Rs. 1000 whichever is higher.

2.2.4.6 VAT Collection

The producers and suppliers are the agents for tax collection on behalf of the Department or VAT administration. Usually they collect VAT on sales and deposit the collected amount after crediting the tax (if any amount remains) in prescribed public treasury account. Tax should be collected in selling price that comprises the costs related to transportation and distribution expenses as well as profit. Excise duty, custom and other tax except income taxes are also included under the selling price. But the trade discount and trade commission are not included. A person who is not a registrant is not entitled to collect tax. The collection of VAT is not the responsibility only of the business community but also of the Revenue Offices. In Nepalese context, if the taxpayer fails to deposit collected tax by regular system, the tax officer may implement various methods and measures to collect the tax arrears. These methods they may employ are as follows:

- deducting the tax from the refundable tax amount
- possessing the taxpayer's fixed and current account
- auctioning the property owned by the taxpayer.
- deducting from the bank account
- deducting from the amount payable to taxpayers by Government offices or Government owned enterprises.

- deducting from the amount payable by the third person with the prior approval of the taxpayer.
- blocking the taxpayers' export-import business. (Adhikari, 2003: 40-41)

2.2.4.7 Tax Credit

VAT is grounded on tax credit method. All the tax paid on purchase of goods and services, including assets, stationery and other expenses, related to business are allowed to credit full amount from the output tax collected on sales. There are some goods, which is very difficult to ascertain whether stated in rule 41(1), tax may not be deducted in respect to the following goods and services.

- beverages;
- alcohol or alcohol mixed beverages such as liquors and beers;
- petrol;
- Entertainment expenses.

Some goods are used for the both purposes of the business and personal use. Tax paid to the following goods may be deducted on the following proportions.

- on all aircraft, 40 percent of purchase value;
- on automobiles (any motor vehicle with three or more wheels used on a road for carriage of passenger, 40 percent of purchase value);
- on computer, 60 percent of purchase value;

2.2.4.8 Assessment

VAT is self assessed tax. Taxpayers assess their liability themselves. They are self-allowed to get credit tax paid on purchase. Self-assessment system is developed in the assumption does not satisfy. Taxpayer may assess wrongly or may fail to pay correct tax. To correct this situation there is a provision of management tax assessment, which is done by the tax officials. Following criteria has been fixed for management tax assessment.

- a) If tax is not filed
- b) If tax return is filed late
- c) If tax return contains incomplete information or

- d) If tax official has reason to believe the tax is not genuine.

2.2.4.9 Refund

Excess of input tax over output tax in any tax period can be adjusted in the following tax period by carrying forward to next period or can claim for refund to the tax office. Two major criteria have been fixed in VAT law for the claim of refund by taxpayer. IT is allowed to claim either by regular export basis or by regular six months credit basis. Exporter having more than fifty percent export to total sales is treated as regular exporters.

There is also a separate provision of refund for the diplomat and foreign aided projects. They are allowed to claim refund immediately.

2.2.4.10 MIS (Management Information System)

The tax system should be backed by good and effective information technology which must be taxpayers friendly and conducive to the tax administration as well. A scientific information system provides highly sophisticated and standardized services to the tax payers, providing them with needed and adequate information at the right time and also to the management and the decision makers. To meet this very purpose, a separate department called “Information Technology Section (IT Section), is separately installed. Management Information System (MIS) does the following functions:

- Processing of tax application form and related information.
- Updating the taxpayers’ individual accounts.
- Entering, Processing and preservation of the central data.
- Preparing of master record in database format regarding tax collection, refund, tax credit, registration, de-registration and the business closure.
- Managing of integrated information between department and field offices.
- Managing and preservation of data and information for a long period.

The IRD posts the data in taxpayers’ account and sends the result to the related Revenue offices. The information of taxpayer is kept confidential according to VAT Act. DANIDA VAT Project has contributed a lot to systematization of the MIS in Nepal (Adhikari, 2003: 54)

2.2.4.11 Appeal

A taxpayer may file an appeal to the Revenue Tribunal within 35 days against tax assessment or penalty charged by a tax officer of an order by the Director General relating to the suspension of this place of transaction. A provision of appeal to director general has also been included in first amendment in VAT act as a choice to taxpayer.

Before filling the appeal the taxpayer must deposit the disputed amount of the assessed tax due the rest of the amount of the tax due plus the whole amount of the fine shall have to be deposited or a bank guarantee of the same has to be provided.

2.2.4.12 Offences and Penalties

In the VAT Act, there is a special provision for the offences, and penalties too. The registrant is liable to fine or penalties if he fails to use the registration number or does not clearly display his registration certificate, fails to file a return, does not issue invoices, fails to keep an up-to-date account of transaction, obstruct the visit by tax officer, prepare false accounts and invoices or attempts to evade tax. According to VAT Act, action is taken in case of the following:

- Non-registration (those falling under taxable criteria)
- Non filers or stop filers
- who has tax due/arrears
- who has no VAT accounts and records as prescribed by the Law.

The Act also has the provision of punishment to tax officers. If the tax officer is found to have made the assessment quite negligently or maliciously, the Director General has a full authority to take action against such a culprit.

2.2.4.13 Rewards

According to VAT Act, if a person provides information with solid evidence showing that a tax payer has evaded or attempted to evade all or some portions of tax, he will be rewarded with the amount equal to 20% of the amount of tax collected on that basis of such information. The DG himself is responsible for rewarding the informants.

2.3 Review of Related Studies

Since the period of introduction of income tax in Nepal, many individuals as well as some institutions have made efforts on study of taxation for finding the ways for the improvement of income taxation. Many books, research reports and articles have been written and published in this respect. The researcher had consulted books, theses and some articles concerning with income taxation during the thesis writing. Some of them are presented in brief below.

2.3.1 Review of Books

The Value Added Tax does not have a long history even in the global context, admittedly, there are not as much literatures available on this topic as other forms of tax system. So in other words, very few studies have been done on this particular topic with special reference to Nepal. An attempt, thereby, has been made to review the theory of tax reform as well as the recent literature on VAT.

The book *Nepalma Mulya Abhibridhhi Kar: Siddhanta ra Byabahaar* is collection of different articles published in various newspapers and written by Dr. Rup Bahadur Khadka during 2051/54. The main objective of this book is to bring public awareness regarding the implementation of VAT. It cites the examples of India, China and Bangladesh where Vat had been already introduced. It has made an attempt to justify the rational for introducing VAT in Nepal. The legal, procedural and structural aspects of VAT are also covered in the book. The success story of Singapore and the failure story of Ghana and implication to Nepal are delineated in the study

In the book *Kardatako Guide* by Shakti Prasad Pandit (2053), Mr. Pandit gives the glimpses of different forms of taxes and their provision. He tries to make aware about the general terminology of Vat and its application in Nepal. He clearly defines the every term of Vat that is associated with VAT system and the procedure that business community has to follow if falls under the threshold.

Another book entitled *Value Added Tax in Nepal: Theory and Practice* (2003) is written by Chandra Mani Adhikari which comprises of three chapters the first chapter deals with theoretical concept of VAT which includes historical background, objectives, merit and demerit of VAT. The second chapter comprises practice of Nepalese VAT which

deals with introduction of VAT system in Nepal, different terminologies associated with VAT, Tax administration system and legal provision made for the VAT implementation in Nepal. The third chapter consists of different model question of TU on VAT, specimen of VAT related forms and Accounts and Value Added Tax Rule 1997 and Value Added Tax Act 1996.

Narayan Prasad Silwal in his book *Value Added Tax: A Nepalese Experience* discloses the empirical finding of VAT after its implication. He was actively associated in VAT administration from the very beginning. He regarded sales tax system as.

- Narrow tax base and low rate.
- Low elasticity and buoyancy.
- Parochial administration
- Abundance of tax but lot of evasion.

Taxpayers were initially scheduled to register in VAT from the July 17, 1997 and VAT was scheduled to effect from the beginning of F/Y 1996-97. At the time of its announcement he realizes that the reparatory work was not complete. In his own words,

- The computer system was not ready.
- The staffing was not complete.
- The manuals were not approved.
- The business community strongly resisted the introduction.

He further added “taking into account all these factors, it was quite reasonable to postpone the scheduled date from April 16 to November 16, 1997 because the VAT being a modern a voluntary tax had to rely on the computerized information system as well as the cooperation of the business community” Tax base, rate structure, exemption and the threshold issues were major factors affecting VAT design in Nepal. According to his study staff recruitment, issue of retention and issue of attitudes of staff are crucial problems in administration front.

Puspa Raj Kandel published a text book entitled “Tax Laws & Tax Planning in Nepal” in 2004. The book was designed to fulfill the needs of MBS and BBS levels under T.U. This book was very useful to the students and teachers to know the legal provisions of Income Tax Act 2058. The book has attached unofficial translation of the tax laws –

both Acts and Rules – related to value added tax and income tax. This book was more informative rather than analytical.

In 2004, Mr. Surendra Keshar Amatya, Dr. Bihari Binod Pokharel and Mr. Rewanta Kumar Dahal published a book entitled “Taxation in Nepal (Income Tax, Property Tax & Value Added Tax)”. This book has exclusively been designed for the subject “Taxation in Nepal” as per the syllabus prescribed by the Faculty of Management, Tribhuvan University for 3rd year of Bachelor of Business Studies (BBS). Unlike other books available on this subject, this book makes an in-depth approach to the study of income tax, property tax and value added tax in Nepal in order to meet the specific requirements of those students who are studying taxation as a concentration/elective subject at BBS 3rd year. This book was very useful to know the legal provisions of Income Tax Act 2058 and Value added Tax Act 2052. Theoretical aspects as well as numerical problems of income tax and value added tax are shrewdly presented in this book. However the book was failed to analyze legal provisions with numerical examples on the topic of income taxation of insurance business.

The book named “Tax Laws and Tax Planning” written by Mr. Ishwor Bhattarai and Mr. Girija Prasad Koirala published in 2006 described the income tax system in depth. This book includes the separate chapter on Value Added Tax. It describes VAT practices in Nepal with several theoretical aspects and numerical examples. This book was specifically designed for the students of MBS 2nd years under Tribhuvan University. However, the book was failed to mention legal provisions with examples regarding taxation of income from insurance business in detail.

2.3.2 Review of Journals and articles

VAT: Analysis and Suggestion (Dr. Roop Jyoti, New Business Age: 2002) - New Business Age, Feb 2002 issue contains this article by famous industrialist and intellectual personality called Dr. Roop Jyoti. According to him VAT was introduced in Nepal in response to realization that a fundamental change was necessary in the country’s revenue policy. The business community was strongly against the VAT in the beginning but the gradually withdrew the opposition as they went on being clearer about positive aspects of the VAT and also its simplicity. Government went through many negotiations with business communities before implementing VAT in the Kingdom of Nepal. Taxpayers were opposed to VAT not because of any defect in VAT

as a system. Rather they were afraid of frequent contacts with revenue officials who were historically notorious for a behavior that exploited the taxpayers. The success of the VAT is dependent on some prerequisites, such as:

- Acceptance of the correct invoice.
- Self-assessment of taxes
- Refund of the tax amount in a speedy and simple manner when the conditions for a tax refund are met.

VAT is useful in the context of Nepal too because of these reasons:

- Limited scope for revenue officials to use discretion
- Honest taxpayers have practically no need to have contacts with the tax officials
- Due to the self-enforcing mechanism of VAT, the tax payers are forced to become honest.

According to him VAT system will fail not because of any defect in it but because of these reasons:

- Inadequate and incorrect step taken to ensure billing and /or billing at the correct prices.
- Failure to enforce VAT threshold on an effective way.

VAT Refund System (The Kathmandu Post: 2002) - The article published in the November 15, 2002 issue made a point that Nepalese industrialist and business did not have any faith in the VAT refund system before four or five years. Most of them used to say that it would be impossible to institutionalize a refund system in Nepal. While refund is one of the important features of Vat system, it was a big challenge for those who were involved in designing the Nepalese VAT system to create a refund mechanism that can be implemented smoothly under the Nepalese circumstances. The possibility of refund arises when the tax paid by a taxpayer on his purchase/imports exceeds the tax collected on his output. Tax refund is granted after verifying the export declaration forms, letter of credits/bills of entry and proof of payment to authenticate the export and the import declaration forms or purchase invoices to authenticate the tax paid on inputs. In the absence of these conditions, refund mechanism is likely to be grossly misused by the taxpayers, which does not become sustainable. International experience indicates that provided refund without verification of export and payment of

input tax. So, these countries later on stopped granting refunds even to the genuine exporters. In order to avoid such situation, the system of verification has been introduced in Nepal.

On the other hand, refund mechanism has been misused by the tax official in those countries which made full audit mandatory for the refund. This is because resources allocated for audit generally limited. But in case of Nepal problem of allocating budget and realizing the long term process of budget and approving refund , a system of refund directly through the VAT revenue collected on imports has been introduced. It was a dream of the designers of the refund system to implement it in a proper and effective manner in real life. In the first year of introduction of VAT, no one claimed for the refund.

After publicity regarding the tax refund system the trust of taxpayers gradually increased and claimed for refund. VAT refund figure indicated that the refund system is becoming increasingly effective in real life but there is still long way to go.

Tax System and Its Reform in Nepal (Dr. Gobinda Bd. Thapa, Business Age: 2003) - An article entitled “Tax System and Its Reforms in Nepal” written by Dr. Gobinda Bd. Thapa, was published in the Business Age in Dec 2003 views that VAT as an important element of tax return program .

Value Added Tax and Its Legal Scrutiny (Mr. Yadav Prasad Dhungana, Business Age: 2003) - Mr. Yadav Prasad Dhungana has scrutinized the legal aspects of VAT in Value Added Tax and Its Legal Scrutiny. He concludes that as other areas of economy that are heavily influenced by political instability, corruption, bad governance, frequent change in government and Moist revolution. VAT also witnesses weak implementation owing to these hurdles.

2.3.3 Review of Previous Researches and Dissertations

There are quite a few dissertations relating to Value Added Tax Nepal undertaken by various individuals and some institutions. Some of them are reviewed below:

Raju Chaudhari (2001), in his dissertation, ***VAT in Nepal: An Analysis of its problems and prospects***, having the objective to review historical background of VAT, to

examine the structure of VAT in Nepal, to observe the contribution of VAT to resource mobilization and to analyze the existing problems of VAT in Nepal through the primary and secondary data and information, has concluded that the main problems for business houses are account keeping and billing and the weakness of VAT administration are lack of motivation and service minded attitude among tax officials lack of honesty in VAT officers.

Though from the theoretical point of view it is sure that VAT system is the best and advanced fiscal tool, its effect in the context of Nepal is not as expected because of the lack of strong and honest tax administer, lack of motivation and service minded attitude among the tax officials, lack of the cooperation of business community, lack of strong coordination between tax collectors and tax payers, lack of strong political commitment and weak public consciousness. He has further recommended some suggestion for better solution of these problems. Tax related information should be published regularly. Interview programs with professor, researchers, tax experts, and economists should be conducted and published through advertising media. Often escape away from actual custom duty, as under valuation of the goods has been a tradition. Thus to overcome these problems, the government either has to collect the custom duty of the actual price of the goods or it has to fix the actual price of the goods in the market. Enforcement should be effective through more audits, investigation and collection visits and integrated approach to total tax system should be introduced for successful implementation of VAT.

The unpublished dissertation entitled *Resource Mobilization Through Value Added Tax in Nepal* undertaken by Pawan Kumar Neupane in 2006 has the basic objective to examine historical background of Value Added Tax and to analyze mobilization of revenue through VAT. Mr. Neupane also provided the bird eye view of the practicing scenario of VAT in the foreign countries. He conducted a research applying secondary data to analyze simple ratio and also use of observation method. He concluded that VAT administration has to begin its program package very strictly and immediately to register the traders, who are supposed to get registered in the VAT in order to control the leakage of revenue and to control tax evasion so that the number of the taxpayers would increase and hence the revenue collection would also increase exponentially. He complains that in Nepal, after the implementation of VAT, the government has hardly paid any attention to the consumers. He gave several reasons behind this. According to him, after the implementation of VAT, attempt was made to inform the public about

some non-VAT including commodities through the public means of communications like radio, television and newspapers, but it could not prove effective.

As a result, the consumers are on the other hand, as he argues, the businessmen opposing the VAT had raised the prices of daily consumption goods like rice, vegetable etc, which had added future burden to the consumers. The government, he observed, could neither reduce the price nor punish those businessmen against such act. Instead, the government compromised with those businessmen. These are some of the grievances articulated by Neupane in the conclusion of the thesis, but he also gives some recommendations. His constructive recommendations were 1. the boundary of Value Added Tax (VAT) should be increased instead of increasing the rate of VAT in order to increase the tax amount under VAT, 2. The concentration must be given to bring the use of billing in all trading concern, 3. the most important one, the consumer should be comprehensively educated about the nature and beneficial aspects of VAT.

Hem Chandra Basnet (2002), in his dissertation, *VAT present status and future prospects in Nepal*, by using the analytical and explanatory research design and having the objective to assess the present status and future prospect of VAT and its effects on various aspects of economy, has concluded that the implementation of VAT in Nepal would have very poor results than expected due to poor planning and poor implementation. But VAT implementation has been becoming more and more effective and VAT net has been spreading and revenue collection is on the constant rise establishing it firmly in Nepal. It is expected that positive impact can be seen in tax collection as code of conduct announced recently includes all the required ingredients, such as, utilization of tax revenue, respecting the taxpayers, simplification in the service and improvement in the behaviour of the tax administrators. Moreover, he recommended that tax related newspapers, pamphlets, radio, television etc. Interview programs with professors, researchers, tax experts, and economists should be conducted and published through advertising media. Similarly the students at school campus level curriculum should include tax education and social obligation of paying tax. Border should be effectively controlled to prevent the illegal trade. There should be a broader tax adjustment checking and highway checking should be practical effectively to prevent any kind of illegal trade. The accounting should be transparent and VAT officers should control auditing as far as possible.

Padam Raj Paudel (2004), in his dissertation, *A Study on VAT: Implementation, Problems and its Effectiveness in the Nepalese Economy*, by using the analytical and

explanatory research design and having the objective to examine the historical background of VAT in general, to examine the implementation, problems, effectiveness of the VAT in Nepal concluded after using different statistical and financial tools that the revenue collection from VAT is lower in Nepal than expected due to various problems related to VAT. In his findings, Nepalese VAT law is inappropriate and the administration is worse. He suggests the VAT laws and administration in Nepal be deeply scrutinized. There is shortcoming in the implementation. For the efficiency of tax system, in his view, there must be strong commitment, manpower development planning within the administration. Apart from them, Tax education packages are to be made and initiated hence, tax administration and tax compliance could be improved.

He is too optimistic about the prospect of revenue collection from VAT if the problems relating to VAT system in Nepal can be solved and resources fully and effectively utilized

For this, as he recommends, Tax related information should be published regularly through journals, magazines, newspapers pamphlets, radios, television, and cinema. Interview programs with professors, researchers, tax experts and economists should be conducted and published through media. Timely revision should be made in the matter of VAT policy. The most important thing, the members involved in formulating VAT policies must have deep knowledge about VAT.

Deb Raj Dhakal submitted his MBS thesis on *A Study on Practices of Value Added Tax in Nepal* in 2004. His thesis was guided by the primary objectives like reviewing Nepal's overall tax structure for the period 1009/91 to 2001/2002, examining the theoretical background of VAT, analyzing the existing VAT system of Nepal with special emphasis on revenue mobilization and identifying the major problems of VAT in Nepal. His study is also chiefly based on the secondary sources and the research design descriptive in nature with the use of figures, ratios, percentages, tables and graphs whenever and wherever necessary. He also concluded that the implementation of VAT system has a greater significance in Nepal. However he comments that the VAT system in Nepal from its inception has been facing innumerable problems, which curtail its merits and effectiveness.

According to him, its progress has been slow, initially due to opposition from the business community. He also admits there do exist the immense administrative problems. Even after its full-fledged implementation in 1999, the system has not been taking a considerable place due to administrative inefficiency. VAT regime is extremely challenging in a burgeoning economy like Nepal where, with long open border, a large

segment of the economy is yet to be monetized. Resistance from the business community, ignorance of general people and the lack of full support and commitment from the politicians and government officials forced the authority responsible for implementation VAT to make compromises on various aspects of VAT which has weakened the process of implementation right from the beginning.

To overcome these problems he put forth his recommendation which include the establishment of proper co-ordination between Inland Revenue Department and Ministry of Finance, the amendment of Unpractical acts, rules and regulations, the need to review the VAT laws on the basis of experience gained so far, cutting down of the existing labyrinth of VAT exemption, adoption of dual rate VAT system: a lower rate of tax on the goods and services of general consumption and higher rate on luxurious goods & services, installation of computer and networking system and so on.

Nepal Chamber of Commerce also made a study to analyze the possible effects of VAT in Nepalese economy in 1997: Dr. Pushpa Raj Rajkarnikar headed the team, the main findings of the study according to report is as follows:

- VAT effects adversely in price level
- It increases the price of imported goods. Ultimately increase the cost of production there by reduces the export business.
- Requirement of book keeping is complicated.
- It would finally affect the small traders.
- It is untimely to implement.
- It would be unjustifiable on social ground.
- Present administration is incapable for handling VAT.
- Computerization system is not sufficient and it is new concept for the tax administrator.

The report suggested for a partial VAT on some commodities. It was in favour of phase-wise implementation of VAT. The study analyses negative impact of VAT neglecting its positive impact.

CHAPTER - III

RESEARCH METHODOLOGY

Research methodology is a research method used to meet the specified objectives. It is a systematic way to find out the probable solution. It refers to the various sequential steps (along with rationale of each step) to be adopted by a researcher in studying the problem with certain objectives in view. Thus the research method designed to achieve the objectives of this thesis contains research design, population and sample, data collection procedure, tools for analysis and methods of analysis and presentations.

3.1 Research Design

The research design is a plan, structure and strategy of investigation conceived so as to obtain answers to research questions and to control variance. The plan is the overall scheme or program of the research. It includes an outline of what the investigator will do from writing the hypothesis and their operational implications to the final analysis of the data. The purpose of the research design is to provide a maximum amount of information relevant to the problem under investigation at a minimum cost.

This research study is concerned with past phenomena both numerical as well as opinions. This study is both descriptive and analytical.

3.2 Population and Sample

The population for this study was comprised of the entire person belonging to or associated with Value Added Tax in Nepal. They were Tax administrators, Experts Business persons and Customers. In order to fulfil the objectives of the study, 45 samples from the population in the Kathmandu Valley were carefully selected by consultation with lecturers and best judgement of the researcher. The respondents could be divided into three groups. The following Table shows the groups of respondents and the size of samples.

Table 5

Group of Respondents and Sample size

<i>S.No.</i>	<i>Group of Respondents</i>	<i>Sample Size</i>	<i>Percentage</i>
1.	Tax Administrators/Experts	10	22
2	Business persons	20	45
3	Customers	15	33
	Total	45	100

3.3 Nature and Sources of Data

Both primary as well as secondary data were collected in order to achieve the real and factual result out of this research. Since the nature of these primary and secondary data is different, collection procedure also tend to vary. A set of questionnaires was designed and distributed to the selected respondents well-learned in and at least familiar to VAT and its implications. Information and data were also collected from respondent through field visit by the researcher. The secondary data were collected through annual reports, different books and publications. The sources and data collection procedure is explained below.

A. Primary Sources

The primary data were collected through following techniques:

- a. Interview
- b. Questionnaire
- c. Telephone queries
- d. Discussion with resource persons
- e. Field Survey

B. Secondary Sources

The secondary data of this research were collected from the following sources:

- a. Published and unpublished reports, articles and dissertations on the concerned subject.

- b. Published documents of National Planning Commission
- c. Publication and annual report of Inland Revenue Department (IRD)
- d. Different publication of Central Bureau of Statistics.
- e. Publications of Nepal Rastra Bank
- f. Various books written by tax officers and scholars
- g. Publications, Budget Speeches and Economic Survey of various fiscal year of Ministry of Finance, the Government of Nepal.
- h. Newspapers, such as, Gorkhapatra, The Rising Nepal, Kantipur Daily, and so on
- i. Publications of various VAT Department.
- j. Websites

The collected data through secondary sources have been tabulated in different ways according to the requirements of the study.

3.4 Procedure of Presentation and Analysis of Data

In the process of presentation and analysis of the data, various statistical tools were used in order to get the meaningful result. Collected data from primary and secondary sources were first processed for tabulation and analysis. For the purpose of analysis, following simple statistical tools were used:

- a. Simple Average,
- b. Simple Percentage,
- c. Graphs, Charts and Diagrams,
- d. Trend analysis
- e. Correlation
- f. Hypothesis testing (Student's t-test)

CHAPTER - IV

PRESENTATION AND ANALYSIS OF DATA

4.1 Structure of Nepalese Tax System

Not only to collect the large amount of tax but also to maintain the economic stability and social justice through improvement the distribution of wealth area the primary objectives of taxation. In this way tax structure stands as a mirror of the fiscal policy instruments. The taxable capacity of government as well as ability of people to pay tax is the major factor of designing the tax structure. For the underdeveloped countries like Nepal the role of taxation in the process of economic development is considerably significant. In this respect, the tax structure has vital role in development.

Tax system was informal during early Shah Period, it was bounded by traditional land tax and other fines etc. In Rana period, taxes were levied on agricultural income from forest and mines, business etc. However the specific tax system and trend of revenue collection was commenced with the budget speech of 1951 but, which are limited to traditional sectors.

Income tax was introduced from fiscal year 1959/60 and sales tax, contract tax, house and rent tax in 1965/66. Tax reform programs and implementation of new tax system were continuous in Nepalese tax structure. In this way the government introduced VAT from 1997.

4.2 Need for reforms on present tax system in Nepal

The tax reform exercise has been the most important and technically the most exciting component of the reform programmer in the fiscal sector.

Arguments put forward in favour of reforms in Nepalese tax system are:-

- To enhance more revenue needs.
- To enable tax administration.

- To fulfil the increasing resource gap.
- To face the problem of continuing and raising difficulties.
- Tax reform is inevitable for liberal and competitive economy.
- To increase productive efficiency.

There is a global trend of tax reforms. In this way there were as many as twenty five-tax reform programmers between 1984-1990 in major Asian developing countries also and this trend continued in Latin America, Europe and Asia from 1990-1995 (Fiscal issue no. 4 IRET Washington DC 1984, page 173).

4.3 VAT as a tax reformer in Nepal: A study on its theoretical importance

Nepal is a small country with different society, different people, and different religions and different geographical constructions. About 40% of the people are literate. Value Added tax is a kind of reformed and modified tax system, which has been held in the country few years ago for supplement of the tax, hotel tax, entertainment tax etc. From the past experience, it proved the government of Nepal has been able to collect more tax than with the previous system (i.e. sales tax, hotel tax and entertainment tax). Lack of highly qualified and educated people, government of Nepal has been able to implement effectively this new tax system. The following arguments reveal VAT's timely importance in Nepal.

4.3.1 Control of the Corruption

First of all it is necessary to control the corruption from the country by implementing the customer awareness policy to collect the more revenue (tax) of the government. Lack of the education and effective management control system, the government of Nepal has not been able to collect more tax. For example, a businessman records his business transaction in the two different books of the accounts, i.e. the original and the duplicate one meant to be shown to the tax department. Due to this corruption, the appropriate (net) amount of the tax could never be collected. Hopefully this new system minimizes these kinds of fraudulent transactions.

4.3.2 Lack of Education

Nepal is not only the poor country but it is also lagging behind in education. Only 40% of the people are literate. Business persons are not only the people to blame but the general customers also do not bother to ask for the bill. This is because of the lack of education. Consumers do not understand the importance of the bill and do not ask for it. So to collect the tax and control the funds people must be literate and give importance to billing system and the tax system as a whole.

4.3.3 Lack of customers' awareness

As described above, the people of Nepal are illiterate and do not know about the tax or the VAT system in particular. So, it is necessary to raise their awareness about the billing system, encouraging them to receive the bill/s after the product is purchased. By this funds would be collected, facilitating the development of the nation in the long run.

4.3.4 Collection of more government revenue

This new policy of tax system has changed each and every stage of business transactions (supplier, producer, distributor, wholesaler and the retailer). This new flexible policy of the transaction will definitely help the government to collect more revenue in fair and clean manner, eventually contributing to the development of the nation. This will ensure the increase of per capita income of the Nepalese people.

4.4 VAT as a Substitute of Sales Tax

VAT is an improved form of sales tax. It is a substitute for sales tax, hotel tax, contract tax and entertainment tax. It is not a genuinely new form of taxation but merely a sales tax administered in different and more developed form. The prices to be charged under VAT and sales tax do not differ. Under the VAT system, consumers know the amount they are paying in form of VAT but under sales tax system, it was not shown separately in the bill. Though both taxes are collected finally from the consumers, VAT is more transparent than sales tax. VAT is levied at each stage from production to sales but sales

tax is levied on only certain level of sales. Following example will clarify that VAT does not increase the prices of goods on services.

Example:

An importer imported a certain article for Rs. 1,000.00. Then it was passed on to wholesaler and retailer before reaching to the final consumer. Importer, wholesaler and retailer charged 10% profit/mark up on their costs each. Not following tables are used to find out the cost price to consumer in both tax system.

Table 6

Computation of Sales tax and the cost price to consumer

Channel	Cost Price	Profit/Mark up under sales tax	Selling Price	Sales Tax @ 13%	Selling Price inc. sales tax
Importer to wholesaler	1000	100	1100	143	1243
Wholesaler to Retailer	1243	124.30	1367.30	0	1367.30
Retailer to Consumer	1367.30	136.73	1504.03	0	1504.03
Sales Tax collected = Rs. 143			Cost Price to Consumer = Rs. 1504.30		

Table 7

Computation of VAT and the cost price to consumer

Channel	Cost Price	Value Added	Selling Price exc. VAT	VAT @ 13%	SP inc. VAT	VAT payable
Imported Goods	1000	–	–	130	–	130
Importer to wholesaler	1000	100	1100	143	1243	13
Wholesaler to Retailer	1100	110	1210	157.30	1367.30	14.30
Retailer to Consumer	1210	121	1331	173.03	1504.03	15.73
Cost Price to Consumer = 1504.03			VAT = 130+13+14.30+15.73 = 173.03			

From all above, it is known that:

- Sales tax is levied on a single stage whereas VAT is levied on multi stages (i.e. production to sale)
- VAT is scientific, modern, progressive as compared to sales tax
- Sales tax is levied on total amount of cost of sales and tax amount of earlier stages is included in cost of sales. On the other hand, VAT is levied not on the total cost of sales but on the amount of value added in each stage.
- Unlike in sale tax, under the VAT system the consumers know the amount of tax contributed by them.

These are the general facts demonstrating the VAT is superior to Sales tax. But this section uses various statistical tools like correlation analysis, Time series analysis and others to prove the superiority of VAT over the sales tax.

4.4.1 Superiority of VAT to Sales tax in its various forms

Before the introduction of VAT, Sales Tax was on vogue in Nepal. There were different types of sales taxes which are named after the channel using them. The mostly common sales taxes were Manufacturing Level Sales Tax (hereafter, MST), Wholesale Level Sales Tax (WST) and Retail Level Sales Tax (RST).

4.4.1.1 Superiority of VAT to Manufacturing Level Sales Tax (MST) & Wholesale Level Tax (WST)

MST is imposed on manufacturer or producer. MST and excise appear to be identical since they both are imposed on manufacturer. However, excises are levied on production not on sales while MST is imposed on the sale made by producers or manufacturers. The main intention of a MST is to make the charge at that point by reference to the 'factory door' price. (Khadka, 1985: 30).

Wholesale tax (WST) is imposed on the last wholesale transaction. In other words, it applies to the sales by the wholesaler to the retailer.

VAT has a broader base than MST and WST because VAT, as already known from its definition, is a broad based tax system while the scope of MST and WST is rather limited and narrow. Moreover, VAT brings more goods and services under its tax net

than the MST and WST. In other words, VAT earns more revenue than the MST and WST. So, a lower rate can be applied to obtain the same revenue.

VAT is more neutral than the MST and WST. There is a possibility for a cascading effect in that they are likely to impose tax upon the tax. The result of cascading is that rise in price caused by the tax tends to become higher than the amount of tax. Apart from it, tax levied on inputs stimulate the producers to economise their inputs, resulting in a less efficient choice of inputs. This in turn leads to inefficiency in production. MST encourages producers to deliberately shift some of their function to their dealers, thereby causing cutting out of the jobs or operations of the firms. This lowers the tax base, resulting in the lower tax revenue. As for WST, in developing countries much wholesaling is conducted on a small scale basis where wholesalers do not keep adequate records. So it is difficult to control and administer this tax. Nepal had a bitter experience with this form of sales tax. Furthermore, the tax base of wholesale tax is also narrower than the VAT. Similarly, since WST is not neutral, business persons could easily avoid tax liability through reorganization of their business. In order to avoid tax, manufacturers directly sell to retailers keeping the wholesale stage out of existence. (Khadka, 1985: 33).

As VAT is imposed only on the value added, input is exempt from taxation. Furthermore, the investment is also tax-exempt, it is neutral regarding the investment decision.

The MST discriminates between the domestic products and imports because the profit margin of the manufacturers are included under the base of this tax but not the profit margin of the importers. In other words, the effective rate of MST becomes higher on domestic products than on import. But, VAT, unlike MST, puts an equal burden on both imports and domestic products since the burden of this tax depends on the final price. It improves the efficiency and competitiveness of domestic products in the international market by freeing exports from tax burden.

VAT is administratively more binding than the MST and WST because VAT brings a larger number of vendors, including retailers within the tax net. It can also be said that VAT simplifies tax administration in some ways.

Another shortcoming of MST is that it is very difficult to impose tax on services because services are directly rendered to the consumers.

In the similar fashion, the tax payers are very fearful in that the VAT is levied right through the retail stage, they are caught at a later stage though they somehow had an opportunity to evade tax at an earlier stage. Thus, they instinctively feel prone to pay tax at the earlier stages. This leads to more revenue collection. Since there is a high likelihood to evade tax under MST and WST, the revenue can hardly be generated as expected. Moreover VAT is clearly shown on invoices. This certainly facilitates the cross-checking as well. So conclusively it can be said that VAT supersedes both MST and WST in all the aspects described above.

4.4.1.2 Superiority of VAT to Retail Sales Tax (RST)

Retail sales tax is imposed on the final sale to the consumer. By contrast, Retail Sales tax is considered to be more better than the MST and WST on many grounds. So this tax is also identical to VAT in the sense that the base of both taxes is consumption. Since the base of these taxes is the same, a given tax rate should generate the same amount of revenue under the either system. However retail tax is also not free from limitations.

Another similarity is that both VAT and RST are neutral to production and distribution. As VAT is levied only on the value added at each stage, tax liability remains the same irrespective of the system of production and distribution. Total tax paid on a commodity or service depends rather on the rate of the tax and on the total value added of that commodity or service, but not on the number of stages through which it passes. Similarly the RST is also levied on the actual selling price to the customer. The total amount of tax depends on the rate of tax and final price of a given commodity. It has nothing to do with the stages. In this way both VAT and RST are considered vertically neutral.

Both VAT and RST appear to be foreign trade friendly, because there is a possibility to refund the exact amount of tax levied earlier on export under VAT. Under the RST, most of the exports take place before the tax is levied. Exports by retailers are exempted from tax, so no necessity to refund tax on exports under the RST.

Even if there are many similarities between VAT and RST, still RST is also not free from limitations. The first limitation is the large number of small retailers brought under the tax net. Developing countries generally lack an adequate and efficient system of tax administration which could administer effectively such number of retailers. Whereas

VAT has wide coverage. The direct impact of the tax is spread out over a much wider range of taxpayers than is the case with any of the above sales taxes and much of the tax is collected from large firms at stages prior to retailing. (Due, 1968: p. 552).

Another limitation of RST is that tax evasion is more likely under this tax system because if a retailer does not file his return, then there is no question to raise tax from him or her. But under the VAT, tax evasion is more difficult and minimum. Since the tax is levied at different stages, it spread out over a large number of tax payers. Hence, each tax payer has to pay relatively a small fraction of the tax. So there will be less incentive for tax evasion in comparison with the RST. Moreover tax evasion is quite difficult at pre-retail stage because of the cross-checking method. Also it is in the interest of a taxable person to insist on his suppliers collecting the tax and furnishing an invoice, as otherwise he would not be able to claim tax credit. (Khadka, 1985: 41). If the retailers do evade, there will be not much loss in revenue because a large part of the tax has been already collected prior to the retail level.

4.5 Revenue Structure of Nepal

The total revenue of government of Nepal is collected from tax and non-tax sectors. The tax revenue, which is compulsory sacrifice of the peoples, can divide into two components i.e. direct tax and indirect tax. Those revenues collected as income tax, land tax, property tax, etc are direct tax and those revenues collected as sales tax, value added tax (VAT), customs and contract tax etc are an indirect tax. Another sides, the government has received other kinds of revenues, e.g. postal service charge, fees fines and forfeiture etc are non-tax revenues. Non-tax revenue are not imposed specially views of revenue collection. In Nepalese economy amount of tax revenue is generally higher than that of non-tax revenue. In Nepal, the contribution of tax revenue used to be almost 80% and non-tax revenue almost 20%. The structure can see in the Table no. 7.

Table 8

Revenue Trend in Nepal

Rs. in million

Fiscal Year (FS)	Total Revenue (TR)	Tax Revenue (TXR)	Tax Revenue as % of TR	Non-Tax Revenue (NXTR)	Non-tax Revenue as % of TR
1991/1992	13512.60	9875.60	73.08	3637.10	26.92
1992/1993	15148.40	11662.50	76.99	3485.90	23.01
1993/1994	19580.80	15371.50	78.50	4209.40	21.50
1994/1995	24605.10	19660.00	79.90	4945.10	20.10
1995/1996	27893.10	21668.00	77.68	6225.10	22.32
1996/1997	30373.50	24424.30	80.41	5949.20	19.59
1997/1998*	32937.90	25939.80	78.75	6998.10	21.25
1998/1999	37133.80	28752.90	77.43	8380.90	22.57
1999/2000	42893.80	33152.10	77.29	9741.60	22.71
2000/2001	48893.60	38865.10	79.49	10028.8	20.51
2001/2002	50445.50	39330.60	77.97	11115.0	22.03
2002/2003	56229.80	42586.90	75.74	13642.7	24.26
2003/2004	62331.00	48173.00	77.29	14158.0	22.71
2004/2005	70122.70	54104.70	77.16	16018.0	22.84
2005/2006	72282.10	57430.40	79.45	14851.7	20.55
2006/2007	87712.08	71126.73	81.09	16585.35	18.91

Source: Annual Report 2006/2007, Inland Revenue Department

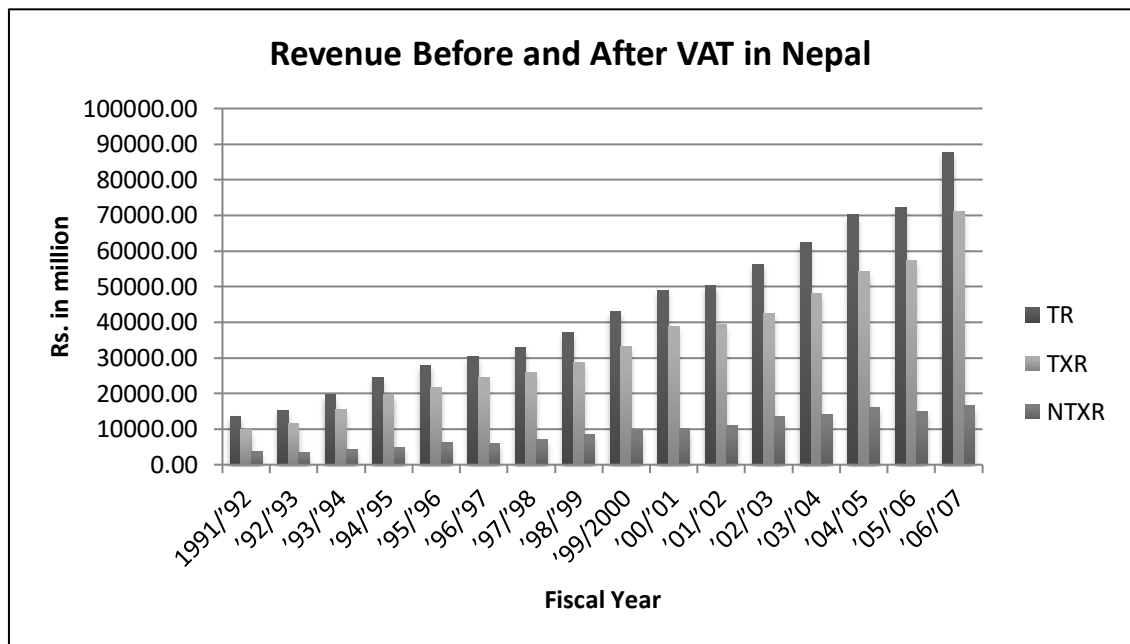
Economic Survey 2006/2007, Ministry of Finance

***Note:** VAT Implementation Year

The above table demonstrates the structures of total revenue of the government before and after implementation of VAT. The contribution of tax revenue on total revenue in the year 1991/92 is 73.08%. This slightly increased up to the year 1996/97 except in the year 1995/96. In the year 1996/97 it reached to 80.41%. On the other hand, the contribution of non-tax revenue on total revenue is 26.92% in 1991/92, which kept decreasing until it reached to 19.59% in the year 1996/97. It proves that tax revenue was in increasing order and non-tax revenue is in decreasing order before and after the implementation of VAT respectively. But after the implementation of VAT in the year 1997/98 the contribution of tax revenue come down to 78.75% and does not cross 80% in any year afterwards. Which proves that tax revenue increased in amount where it does not lead to the proportionate increasing scenario. On the other hand, the

contribution of non-tax revenue increased to 21.25% in the year 1997/98. But in the fiscal year 2006/07 tax revenue exceeded 80%, which must be considered a good sign in the tax revenue collection following the implementation of VAT. But overall all judging the figures presented in the table, no significant changes have occurred so far after the implementation of VAT. This only proves the lack of contribution of VAT to raise tax revenue of the government proportionately which can be presented in the following graph also.

Fig. 1



4.5.1 Structure of Tax Revenue

Tax is the compulsory levy made to government treasury by public. Tax is levied either directly on income or indirectly on consumption of goods and services. Indirect tax is collected mainly from customs and the consumption of goods and services. Supremacy of tax user of indirect tax is one of the important features of the developing economies. The propensity to consumption is higher in developing countries due to their marginal income. The insignificant level of saving, marginal results in to the poor level of the collection of direct tax. The heavy reliance on indirect taxation in Nepal is justified on the administrative ground.

Nepal is not in a condition to generate adequate revenue from direct taxation. Agriculture is the main occupation of the Nepalese people.

The industrial development is very primitive in Nepal. It contributes only about 10% in the GDP. The per capita income of Nepalese people is extremely low. In Nepalese economy the contribution of direct tax is very low, it is almost 20% of total tax and contribution of indirect tax is remarkably higher than direct tax it is almost 80% of total tax revenue. The table below shows the structure of total tax revenue.

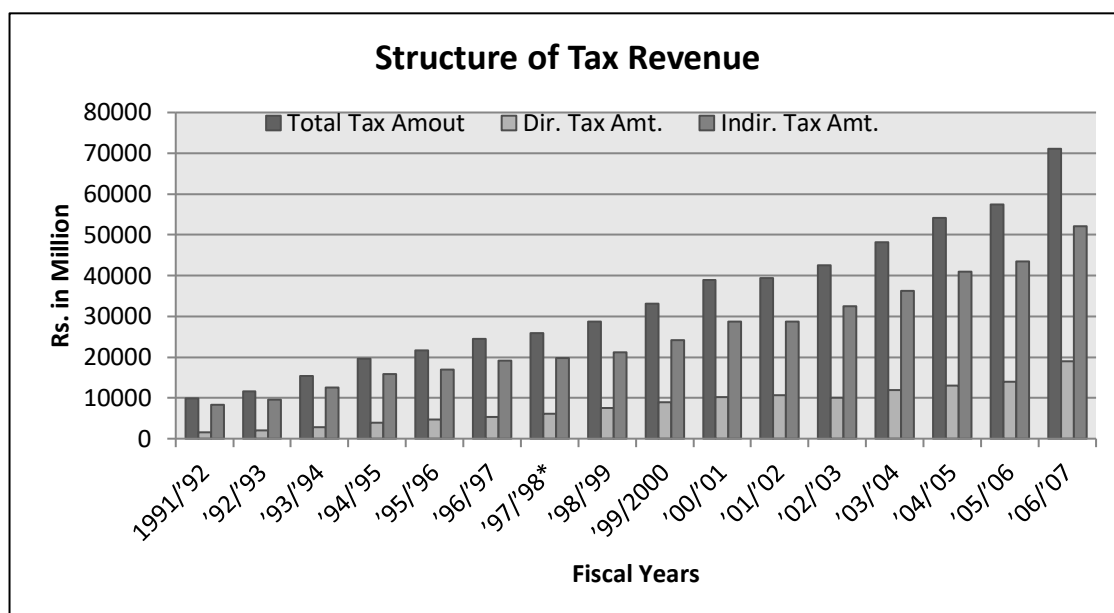
Table 9
Structure of Total Tax Revenue Rs. in million

Fiscal Year (FS)	Total Tax Revenue (TXR)	Direct Tax		Indirect Tax	
		Amount	% of Total Revenue	Amount	% of Total Revenue
1991/1992	9875.60	1595.20	16.15	8280.40	83.85
1992/1993	11662.50	2036.20	17.46	9626.30	82.54
1993/1994	15371.50	2855.30	18.58	12516.20	81.42
1994/1995	19660.00	3849.30	19.58	15810.70	80.42
1995/1996	21668.00	4655.90	21.49	17012.10	78.51
1996/1997	24424.30	5340.00	21.86	19084.30	78.14
1997/1998*	25939.80	6187.90	23.85	19751.90	76.15
1998/1999	28752.90	7516.10	26.14	21236.80	73.86
1999/2000	33152.10	8951.50	27.00	24200.60	73.00
2000/2001	38865.10	10159.40	26.14	28705.70	73.86
2001/2002	39330.60	10597.50	26.94	28733.10	73.06
2002/2003	42586.90	10105.70	23.73	32481.20	76.27
2003/2004	48173.00	11912.6	24.73	36260.4	75.27
2004/2005	54104.70	13071.8	24.16	41032.9	75.84
2005/2006	57430.40	13968.1	24.32	43462.3	75.68
2006/2007	71126.73	18980.29	26.69	52146.44	73.31

Source: Annual Report 2006/2007, Inland Revenue Department
Economic Survey 2006/2007, MOF

***Note:** VAT Implementation Year

Fig. 2



According to above data, the contribution of the direct tax is very low. Contribution of direct tax revenue in the year 1991/92 is 16.2% and there after gradually increased and reached to 27% in the year 1999/2000 and thereafter slightly decreased. On the other hand contribution of indirect tax revenue is also in decreasing order. Although, value added tax belongs to the indirect tax category, introduction of this tax does not increase the share of indirect tax on total revenue. The tax experts always say that implementation of VAT helps to collect more revenue. It also helps to collect more income tax and other direct taxes due to its transparency characteristics. This claim of tax experts might come true in the case of successful implementation. But hopefully, in spite of the decreasing trend of the direct taxes, in the fiscal year 2006/2007, it suddenly had started picking up once again but in an insignificant percentage of only 26.29 with reverse impact on the indirect tax revenue standing at 73.21, about 2% falling below the previous figure.

4.6 VAT Administration

Tax administration plays a critical role in the effective implementation of any tax system. Success and effectiveness of VAT in Nepal hinges on the administrative capability. In other words, the tax system in developing countries like Nepal must be designed in such a way that it can be administered effectively with existing administrative capability. In this regard, Shoup suggests that in a developing country,

still at an early stage of development where most business activity is fragmented among small firms a turnover may be preferred on administrative grounds. If only retail trade is fragmented, the value added technique may be applied in a less than comprehensive manner to affect only imports, manufactures, extra active industries and perhaps wholesalers. (Shoup, 1998: 149). Poor administration can hinder the utility of VAT in Nepal. VAT is a modern and new tax system which can not be implemented without efficient and modernized administrative setup. Nepalese industrialists and businessmen did not have any faith and positive remarks on the VAT administration and its refund system as past records of deficiency of tax administration. The past records may be a mirror which reflects the things that are going to happen in future. Even in the past, government came up with so many stereotyped promises to facilitate the business communities but all were eventually proved abortive. So this time, they hardly have any confidence on the government policy and commitments. If administrative capability is not so strong to administer tax, the theoretical merits of the VAT only remain on paper. So it is most important to judge the capability of present VAT administration. To judge the capability of present VAT administration question was asked and the result so obtained has been presented in the table as follows:

Table 10
Efficiency of Nepalese VAT administration

Respondents	Tax Officials		Business persons		Consumers		Total	
	No	%	No	%	No	%	No	%
Efficient	7	70	1	5		0	8	17.70
Inefficient	1	10	10	50	8	53.33	19	42.22
Needs Improvement	2	20	9	45	7	46.67	18	40.00
Total	10	100	20	100	15	100	45	100

According to table no.10, 40.22% view that present administration absolutely unable to handle VAT. However, 40% are optimistic. Their view is that if certain improvements can be made within the tax administration there will certainly be possibilities of positive result. According to them:

- i. Past records reveal that the revenue administration has mostly failed to fulfil the administrative requirement for various taxes while expected outcome has

become only theoretical. This indicates that the same will be the case in the future because past is the mirror on which the future is reflected.

- ii. Many government policies in Nepal are implemented without proper consideration and preparation. Most deplorably, the government of Nepal is used to performing the task in hurry or on the spur of the moment without giving it a detailed thought. This has often resulted in the failure of the policies it has formulated. Regarding VAT, the case is more or less similar in that the government is still unable to shatter its status quo.
- iii. The government should convince the business communities and make them a part of policy making. The involvement of private sector in the formulation of rules and regulations and addressing and solving of the basic issues are often overlooked.

4.6.1 VAT as the best way to increase public revenue

The implementation of VAT in Nepal was necessitated by the strong aspiration to increase the revenue. VAT is by far the most transparent, fair and broad based tax system. So there can be no possibilities of tax evasion. Different people have different view when asked what the best way it is to increase public revenue through VAT

Table 11

Best way to increase public revenue through VAT

Respondents	Tax Officials		Business persons		Consumers		Total	
	No	%	No	%	No	%	No	%
Increasing tax	1	10				0	1	2.22
Widening its coverage	7	70	15	75	9	60.00	30	66.77
Discouraging tax evasion	2	20	4	20	6	40.00	13	28.89
Others			1	5			1	2.22
Total	10	100	20	100	15	100	45	100

Table 11 shows that the best way to increase public revenue through VAT is to widen its coverage because 66.77% of the total respondents are found to think along that line. About 28.89% went for the option of discouraging the tax evasion. The public

awareness program also has a great bearing on the phenomenal increase of public revenue.

4.6.2 Habit of taking bills on purchases

The customers are found to have neglected taking or ever asking for the bills after they have purchased goods or services. Likewise, the salespersons also don't bother to provide them with any bills. VAT calls for the issuance of the bills. So, this habit can be taken as the critical problem for the smooth implementation of VAT system. Even if some give bills, it is not guaranteed that they are proper ones or are not fake ones. The respondents gave following variegated answers when asked about this.

Table 12

Habit of taking bills on Purchase

Respondents	Tax Officials		Business persons		Consumers		Total	
	No.	%	No.	%	No.	%	No.	%
Alternatives								
Yes on every purchase	5	50	5	25	1	6.67	11	24.44
Yes, on most of the purchase	5	50	13	65	2	13.33	20	44.44
Yes, but not regular			2	10	10	66.67	12	26.67
No, I never get any bill					2	13.33	2	4.5
Total	10	100	20	100	15	100	45	100

Table 12 shows that 50% of tax officials, 65% of business and 13.33% of consumers have the habit of taking bills on most of their purchases. In total 24.44% of people take bills on every of their purchases. About 26.67% of people have the habit of taking bills but are not so serious about it so they are not regular about picking up bills on their purchases. 4.45% of people complain that they are not given any bill when they buy goods or services. It is a liability of every salesman to produce the bill whereas demand for bills is the lawful right of every customer.

4.6.3 Percentage of Customers demanding bills

Because of many factors, like lack of awareness among customers and so on, the customers themselves feel cumbersome to ask for the bills from the salesmen, thus provoking him to evade tax. When asked whether they demand bills or not on their purchases, the following numbers are found to be following the rule:

Table 13

Percentage of Customers demanding bills

Respondents	Tax Officials		Business persons		Consumers		Total	
	No	%	No	%	No	%	No	%
Less than 20	9	90	12	60	10	66.67	31	68.89
20-40	1	10	3	15	4	26.67	8	17.78
40-60			1	5	1	6.66	2	4.44
60-80			2	10			2	4.45
above 80			2	10			2	4.44
Total	10	100	20	100	15	100	45	100

The above table shows that tax officials have the opinion that less than 20% demand for bills. 66.67% of customers have the same opinion. Some (3 out of 20) businessmen argue that 20 to 40% customers ask for bills. This statement is supported by 26.67% of the customers. 10% of the businessmen suggest that above 80% of customers demand for bills. To sum up, the total percent of customers demanding for bill is less than 20% was 68.89%. Habit of asking for bill by 40 to 60% is just 4.45% only.

4.6.4 VAT Education

VAT is newly introduced scientific tax system so everybody should be educated about it. About VAT education, few people are aware of this very term. Customers believe that VAT will increase the price of the goods and services so they don't want to be even educated about it. Businessmen are also against it as they also lack the proper knowledge about VAT. So VAT should be the topic of discussion and matter of concern for the successful implementation. The following feedback has been collected from the survey:

Table 14

Effective Media for VAT Education

Respondents	Tax Officials		Business persons		Consumers		Total	
	No	%	No	%	No	%	No	%
Alternative Choices								
Radio/TV	2	20	12	60	5	33.33	19	42.22
Newspaper	5	50	3	15	7	46.67	15	33.33
Booklets/Pamphlets			2	10	1	6.66	3	6.67
Wall Painting/Banner	2	20	1	5	1	6.67	4	8.89
Seminars	1	10	2	10	1	6.67	4	8.89
Total	10	100	20	100	15	100	45	100

The above table shows that 42.22% suggest radio and TV as the effective media as VAT education. Newspaper might be another source of education as suggested by 50% of VAT officials. About 6.67% suggest that the booklets and pamphlets may be the best media for VAT education. This media proves to be ineffective, thereby must be replaced by other forms of media.

4.6.5 Weaknesses in VAT Administration

The following survey shows what the respondents feel about the administration of VAT and what lead to the weaknesses in the administration.

Table 15

Weaknesses in VAT administration

Respondents	Tax Officials		Business persons		Consumers		Total	
	No	%	No	%	No	%	No	%
Alternative Choices								
Lack of expertise	4	40	2	10	5	33.33	11	24.44
Lack of trained Manpower	2	20	14	70	6	40	22	48.89
Corruption & bribing			4	20	4	26.67	8	17.78
Lack of physical infrastructure	3	30					3	6.67
Lack of sufficient field offices	1	10					1	2.22
Total	10	100	20	100	15	100	45	100

Every study related to VAT suggests that administration is the main problem in Nepal. Unless and until administration is transparent, capable, trained and honest, the government's intention to collect revenue through VAT will be limited to nothing more than just a daydream. Table 11 shows that 40% of tax officials attribute the lack of expertise to the weakness in administration. In total, 24.44 of people suggest the lack of expertise in VAT administration. About 48.89% point to the lack of trained manpower while 17.78% boldly accused the officials of corruption and bribing while the tax officials remain silent about this. According to them, the corruption and bribery is deeply rooted in the Nepalese administration.

4.6.6 Behaviour of VAT Administrator towards Taxpayers.

The following survey shows what the respondents which are only Business persons feel about the administrators' behaviour towards them.

Table 16

Behaviour of VAT Administrator towards Taxpayers

Respondents	Business persons	
	No	%
Alternative Choices		
Very helpful	12	60
Helpful	3	15
Very troublesome & Slow in their work	2	10
Disrespectful, treating badly	1	5
Total	20	100

The table 16 shows that about 30% of businessmen have the view that the VAT administrators are helpful. About 70% view that tax officials work in steady and troublesome manner, not finishing the work in time and causing unnecessary trouble to them. Some even believe that VAT administrators are incapable, disrespectful and dishonest i.e. finishing work only after they are sufficiently bribed.

4.6.7 Problems in VAT Collection

The reason behind the introduction of VAT is mainly to increase public revenue. VAT is collected from tax payers. Modern and scientific as the VAT is, it is expected that tax collection will pick up significantly through VAT, but the result has not been satisfactory yet. The crucial question is : What are the problems behind it? There may be various problems causing a setback to the collection of VAT. Four alternatives were given to the respondent so that they can rank them at will. Total marks given by tax officials, businessmen and consumers can be seen from Table 17.

Table 17

Problems in VAT collection

Respondents	Tax Officials		Business persons		Consumers		Total	
	No	%	No	%	No	%	No	%
Alternative Choices								
Registration	2	20	6	30	4	26.67	12	26.67
Account Keeping	3	30	6	30	5	33.33	14	31.11
Billing	4	40	3	15	5	33.33	12	26.67
Tax refunding	1	10	5	25	1	6.67	7	15.55
Total	10	100	20	100	15	100	45	100

As shown in above table, about 31.11% believe that account keeping is the biggest problem in VAT collection. Among them 30% of tax officials, 30% of businessmen and 33.33% of consumers supported this alternative. Second greatest problem on VAT collection is billing. About 26.67 believes that billing is one of the problem. Total percentage of 15.55 say that tax refunding is problem in the collection of VAT in Nepal.

4.6.8 Problems in Account Keeping

Account keeping is also one of the problems in the successful implementation of VAT. Most of the businessmen are still in the old mind-set and run their business in the traditional way in Nepal. Especially small traders apparently don't want to keep the transparent and clean record of their transactions. Why so? Respondents were asked that question, the following table shows what their answers are:

Table 18

Problems in Account keeping

Respondents	Tax Officials		Business persons		Consumers		Total	
	No	%	No	%	No	%	No	%
Alternative Choices								
Illiteracy	2	20	2	10	3	20	7	15.56
Not used to a/c keeping	3	30	14	70	4	26.67	21	46.67
Rules & regulation still confusing			2	10	2	13.33	4	8.89
Tax evasion is difficult under VAT	5	50	2	10	6	40	13	28.89
Total	10	100	20	100	15	100	45	100

From the above table, it can be concluded that about 46.67% are not used to account keeping. This is supported by the views of 70% of Businessmen and 30% of tax officials. About 15.56 suggest that illiteracy is another problem.

4.6.9 Problems in the implementation of VAT

Respondents were asked what problem there might be in successful implementation of VAT. Their response is recorded in the following table.

Table 19

Problems in Implementation of VAT

Respondents	Tax Officials		Business persons		Consumers		Total	
	No	%	No	%	No	%	No	%
Alternative Choices								
Adm. Incapability	1	10	5	25	3	20	9	20
Under Invoicing	2	20	1	5	4	26.67	7	15.56
Frequent change in Acts	1	10	4	20	1	6.67	6	13.33
Lack of Public Awareness	2	20	3	15	4	26.67	9	20
Lack of Long term Policy & strategy	2	20	3	15	1	6.67	6	13.33
Taxpayers unknown to VAT	2	20	4	20	2	13.33	8	17.78
Total	10	100	20	100	15	100	45	100

Table 19 reveals that about 20% point to the lack of public awareness for the problem in the effective VAT implementation. Due to the lack of public awareness, customers hardly demand any bills on their purchase. Total 20% consider administrative incapability as a hindrance to to VAT implementation. Tax payers are oblivious to the term VAT itself.

4.7 Registration

Registration is a preliminary step in the whole process of VAT system. The threshold limit of VAT registration used to be Rs. 2 million previously. But now, it has changed to Rs. 1 million only. All tax payers whose taxable transaction stand above Rs. 1 million are compulsorily required to register for VAT. But those firms whose turnover is apparently below the prescribed threshold limit also can go for registration if they so desire. The firms having more than Rs. 2 million who were not previously registered under sales tax required to register for VAT within 90 days from 16 November, 1997, or the date of issue of VAT Act. It was however not necessary to register if they only dealt with tax exempt goods and services. Similarly, the Nepalese VAT Act does not allow branch or division registration system.

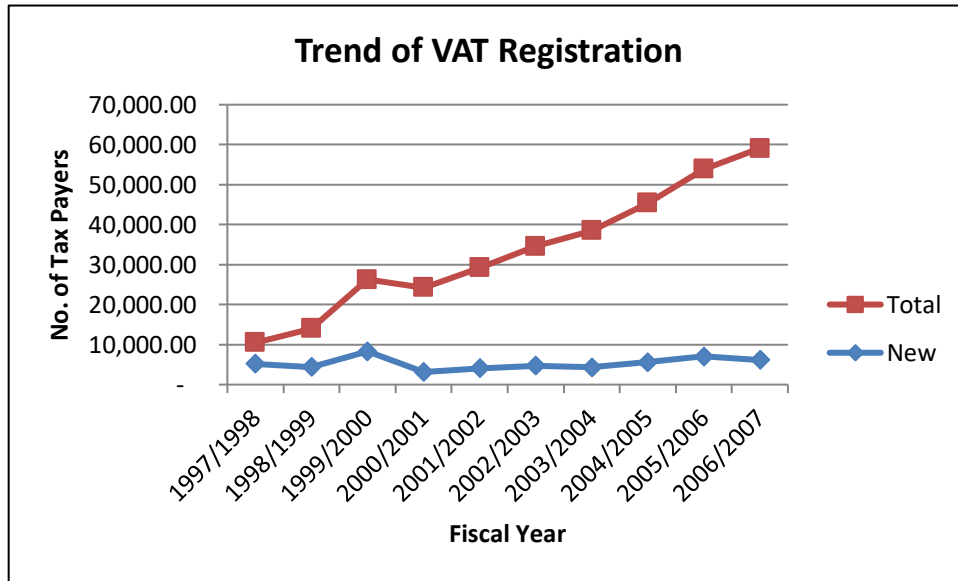
Table 20

Year-wise number of VAT Registrants

Fiscal Year	No. of VAT registrant	Cumulative Total	Rate of Increase (%)
1997/1998	5237	5237	-
1998/1999	4405	9642	84.11
1999/2000	8305	17947	86.13
2000/2001	3146	21093	17.53
2001/2002	4056	25149	19.23
2002/2003	4723	29872	18.78
2003/2004	4302	34174	14.40
2004/2005	5602	39776	16.39
2005/2006	7055	46831	17.74
2006/2007	6134	52965	13.10

Source: Annual Report 2006/2007, Inland Revenue Department

Fig. 3



The number of sales tax registrant was 2045 at the time of the introduction of VAT in 1997. Among them those with an annual transaction above the VAT registration threshold were converted into VAT registrants from 16 Nov. 1994 while between those having transaction below the threshold level some registered voluntarily and other remained under the VAT net. Other potential tax payers that were outside the sales tax net registered for VAT over the year. The member of VAT registrants increased gradually. In one side some tax payers registered under the revenue department and in the other side some registrant tax payers cancelled their registration under VAT department. This is proved by the above table and chart which shows in the year 1997/98, 5237 tax payers registered for VAT.

In the year 1998/99 new tax payers registered were 4405 and the total tax payers increased to 9642 by 84.11%. The growth rate of VAT registration remained at a high level in the fiscal year 1999/2000 at about 86.13%. Both voluntarily and compulsorily, the business communities came under VAT flag because there is a legal provision in the VAT law that the government bodies are required to buy only from the VAT registrants in case of their purchases exceeding certain amount. This seems to have compelled them to register for VAT. However, the figure above shows the trend is in the steady line with sporadic rise, but that is negligible. The percentage is on the decrease finally ending up at 13.10% in the fiscal year 2006/2007. This shows the businessmen are getting disinterested in registration for VAT.

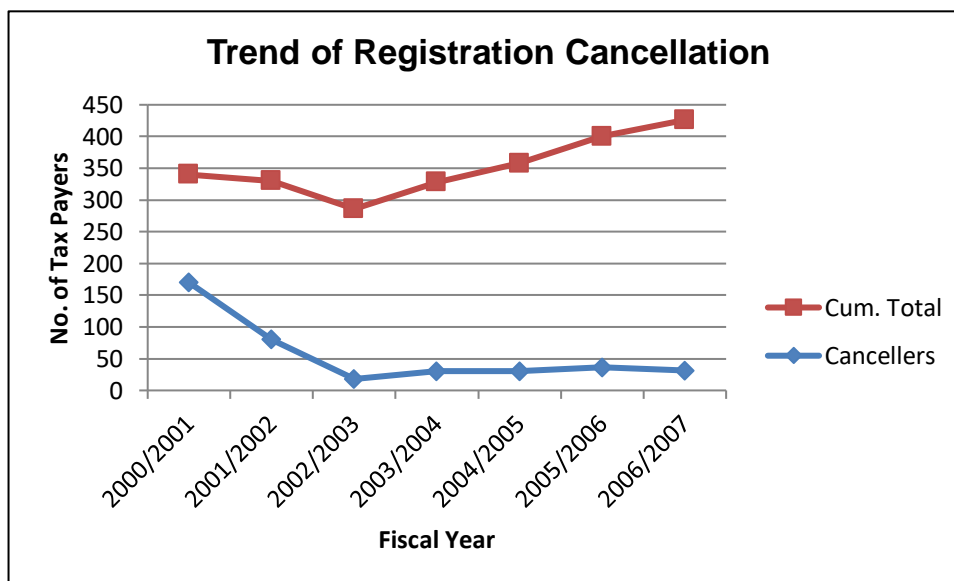
The table below shows the tax payers' trend of cancelling registration from VAT.

Table 21
Year-wise number of VAT Cancellation (2001-2007)

Fiscal Year	No. of Reg. Cancellers	% of Reg. Cancel.
2000/2001	170	
2001/2002	80	0.47
2002/2003	18	0.07
2003/2004	30	0.11
2004/2005	30	0.10
2005/2006	36	0.11
2006/2007	31	0.09

Source: Annual Report 2006/2007, Inland Revenue Department

Fig. 4



The above table and chart depict the data from the fiscal year 2000/2001 to 2006/2007, according to which the taxpayers who cancelled their registration in the fiscal year 2000/2001 was by far the most huge number of those of the subsequent years, i.e. 170. This was followed by only 80 which shows about half the decrease of the preceding year. The percentage 0.47 shows the significant decrease. In the fiscal year 2002/2003, the cancellation decreased even significantly, thereby hinting at the taxpayers' more inclination towards VAT. The trend stood almost constant from the fiscal years

2002/2003 to 2006/2007. If this trend continues, hopefully, this number may decrease in the future. Obviously, more awareness programs must be held to transmit the taxpayers about the benefits of VAT.

4.8 Non-Filers

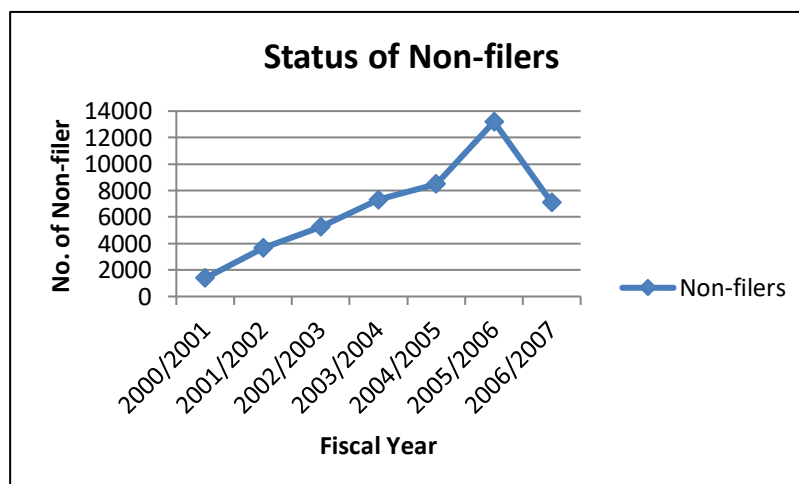
There is a legal provision in the VAT law that all the registrants are required to submit their tax return after 25 days of completion of the tax period. It does not matter whether any transaction takes place within that period or not. It is necessary to submit the tax return within the specified time. Registrants who fail to submit their tax return is known as non-filers. The table and chart below illustrate the no. of non-filers in each fiscal year from 2000/2001 to 2006/2007.

Table 22
Year-wise number of Non filers (2001-2007)

Fiscal Year	Total Registrants	Non-filers	Percentage
2000/2001	21093	1383	6.72
2001/2002	25149	3676	15.18
2002/2003	29872	5255	17.59
2003/2004	34174	7322	21.43
2004/2005	39776	8492	22.96
2005/2006	46831	13198	21.63
2006/2007	52965	7098	14.58

Source: Annual Report 2006/2007, Inland Revenue Department

Fig. 5



The Table 22 and figure 5 above show that the status of Non-filers were in increasing trend from the fiscal years 2000/2001 to 2005/2006. In the fiscal year 2000/2001, only 4 percent failed to submit the tax return. But this trend was on the increase in each subsequent year until the fiscal year 2005/2006. But in 2006/2007, the trend once again declined showing a significant check on taxpayers' habit of not submitting the tax return. On the other hand, it foretells a good sign for the future trend as well because it is said that the morning shows the day.

4.9 Tax Returns

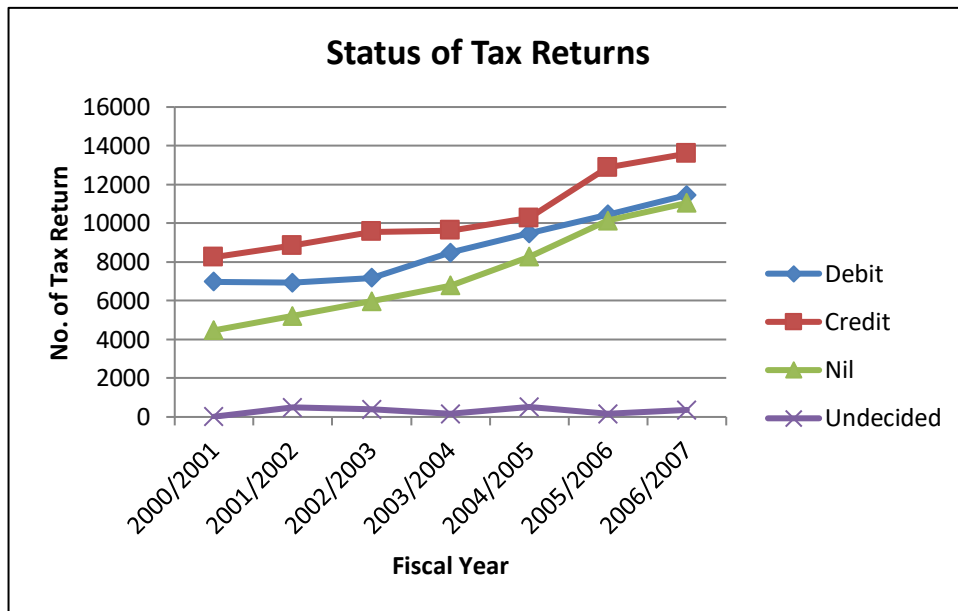
Tax Return means a return furnished by a Taxpayer in regard to the tax payable for transactions carried out during the Tax Period. A study on the status of Tax Return facilitate the forecasting of the amount of potential tax collection. In general, the tax return includes debit, credit and nil tax return. Debit return implies the return which the tax payer furnishes declaring to pay tax. Debit return in a favourable position shows the output tax exceeding input tax credit. Credit return is just opposite of debit return. If input tax is greater than output tax, the possibility of credit return is realized. As the credit return increases the liability to refund also increases. So, debit return is favourable for the government. If there is no transaction during the particular tax period, then it is nil or zero return. The status of tax return is depicted in Table 23 and Figure 6.

Table 23
Status of Tax Returns (2000-2007)

Fiscal Year	Debit		Credit		Nil		Undecided		Total
	No.	%	No.	%	No.	%	No.	%	
2000/2001	6975	35.39	8250	41.86	4471	22.68	14	0.07	19710
2001/2002	6936	32.30	8844	41.19	5207	24.25	486	2.26	21473
2002/2003	7178	31.06	9553	41.36	5972	25.85	396	1.72	23099
2003/2004	8483	33.87	9625	38.42	6783	27.08	158	0.63	25059
2004/2005	9478	32.20	10260	36	8271	29	516	1.8	28525
2005/2006	10449	31.06	12882	38.17	10139	30.14	163	0.4	33633
2006/2007	11457	31.43	13594	37.29	11044	30.29	362	0.99	36457

Source: Annual Report 2006/2007, Inland Revenue Department

Fig. 6



The table 23 and figure 6 reveal that the credit return is higher than the debit return. This is considered something not so good for the VAT system. In the fiscal year 2001/2001, the ratio of debit return to the total return is 35.39% whereas the credit return stood at 41.86%. From then onwards, the figure just seemed to rise consistently. The nil return in that particular period was 22.68% and the undecided percentage is 0.02. Understandably, at the initial periods, the credit refund might rise due to the provision to carry forward credit from the sales tax and the provision also of getting credit facility of old stock. But the continuous increase of the credit refund is definitely not a good sign for the government who needs to think about this in time.

It is a duty of Inland Revenue Department to seriously come up with measures to make sure this doesn't happen in future. Unless the government is proactive enough to figure out the actual cause behind the increasing trend of credit return, nil return and undecided return which in the above table is not high though, the government's intention to mobilize VAT as resource may be just a daydream. So complete tax audit and investigation on these issues must be a top priority of the government.

4.10 Revenue Collection from VAT

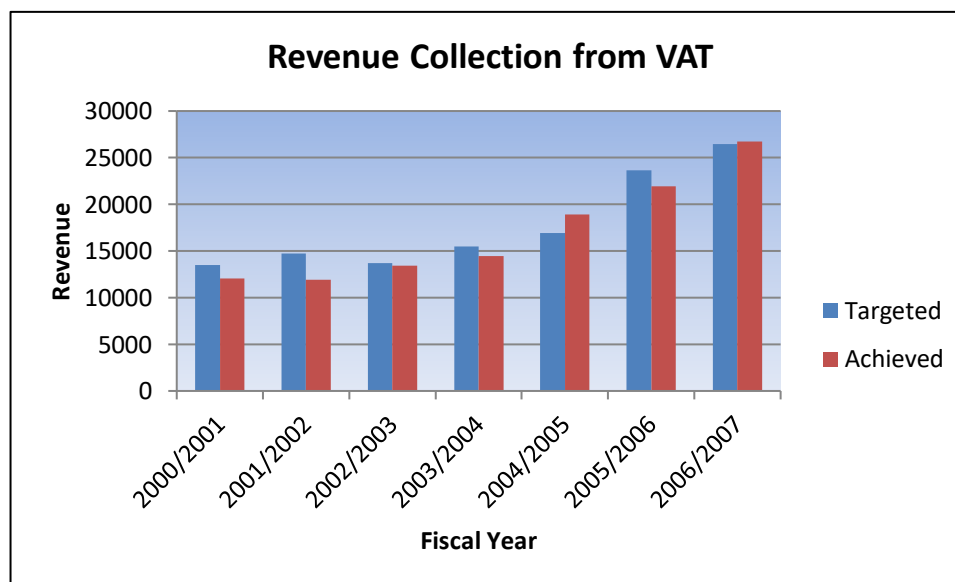
VAT is considered as modern and scientific tax system in sales tax family. Nepal has adopted VAT since fiscal year 1997/98. Since then the actual collection of VAT from the fiscal year 2000/2001 to 2006/2007 has been shown below.

Table 24
Revenue collection from VAT
(Rs. in million)

Fiscal Year	Targeted	Achieved	% Change
2000/2001	13500.00	12050.00	-11
2001/2002	14750.00	11947.95	-19
2002/2003	13730.05	13449.12	-2
2003/2004	15503.50	14448.89	-7
2004/2005	16950.00	18894.63	11
2005/2006	23650.00	21946.01	-7
2006/2007	26463.00	26704.18	1

Source: Annual Report 2006/2007, Inland Revenue Department

Fig. 7



VAT was introduced in order to meet the revenue gap that government had been facing for a long time. In the fiscal year 1999/00 total Rs. 9860.00 million was collected where

as expected or targeted was Rs. 10460.00 million in the same year which is less by 6% than targeted. The figure is not shown in the table though because the data shown range from the fiscal year 2000/2001 to 2006/07 only. Similarly, in the fiscal year 2001/02 achieved VAT was Rs. 11947.95 million whereas targeted was Rs. 14750.00 million which is 38% less than targeted. However, by small margin of 2% only differ between targeted and achieved in the fiscal year 2002/03. In the fiscal year 2004/05, the revenue actually collected even exceeded the targeted one. In figure, the targeted revenue for that period was Rs. 16950 million where as the collected revenue amounted to Rs. 18894.63, i.e. 11% more than the targeted one. But the boom period in revenue collection was to soon be followed by the depression when the 11% increase went far down to -7 in the fiscal year 2005/06 with the targeted revenue Rs. 23650 million and the actual collection only amounting to Rs. 21996 million. This trend seems to be improved again in the following fiscal year 2006/07 when the actual revenue marginally exceeded the targeted one by 1 percent. The change in the revenue collection was triggered partially by the major change in the Nepalese political scenario that took place in the aftermath of the people's movement part 2 on April 2005. Now as can be seen in the figure above, after for the last few years, comparatively the trend of revenue collection is good one although it is still in a fluctuating nature.

4.10.1 Composition of VAT Revenue

VAT is levied on both domestically produced goods and services and imported goods and services. Nepalese economy is agricultural based. More than 60% people are farmer and the farming is unorganized. Agriculture production through unorganized sector is exempted from VAT. Most of the products and services are imported from neighbouring countries and third countries. Thus import generates more VAT revenue than domestically produced goods and services. The composition of VAT revenue collection from imports and exports are shown in a table in the next page.

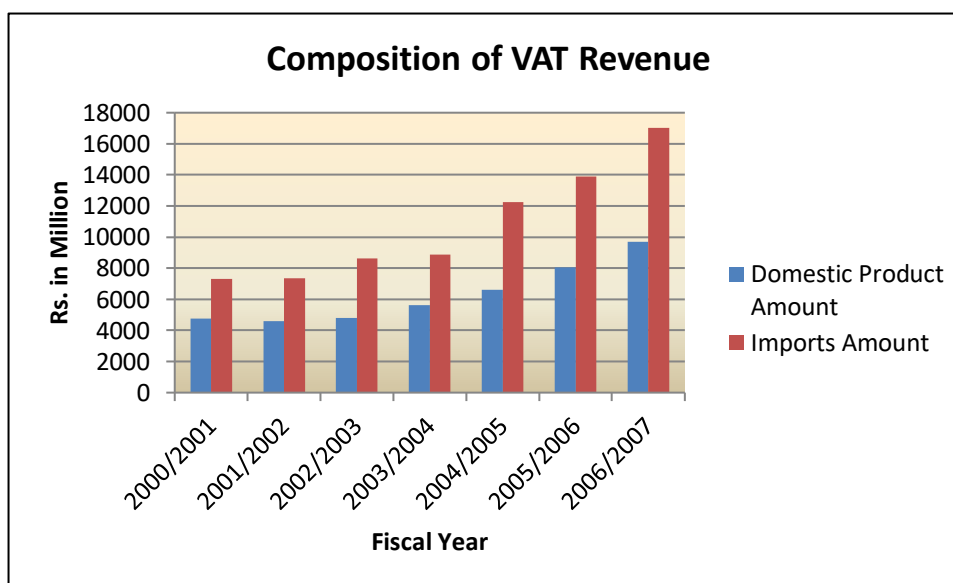
Table 25

Composition of VAT Revenue (Rs. in million)

Fiscal Year	Total VAT Revenue	Domestic Product		Imports	
		Amount	%	Amount	%
2000/2001	12050.00	4744.72	39.38	7303.04	60.61
2001/2002	11947.95	4608.37	38.57	7339.58	61.43
2002/2003	13449.12	4819.61	35.84	8629.51	64.16
2003/2004	14448.89	5604.12	38.79	8874.77	61.42
2004/2005	18894.63	6624.33	35.06	12270.29	64.94
2005/2006	21946.01	8057.43	36.71	13888.58	63.29
2006/2007	26704.18	9689.98	36.29	17014.20	63.71

Source: Annual Report 2006/2007, Inland Revenue Department

Fig. 8



In fiscal year 2000/01, share of domestic and imported VAT revenue in total revenue was 39.38% and 60.61% respectively while in the fiscal year 2002/03 is 35.83% to 64.16%. In the fiscal year 2006/07, domestic products contributed 36.29% whereas imported goods contributed 63.71% in the total VAT revenue. In Nepalese VAT structure, collection from imports share about two-third and collection from domestic source occupies one-third only.

4.10.2 Share of VAT Revenue to Gross Domestic Product (GDP)

Gross Domestic Product is the total final output of goods and services produced by the country's territory by residents and non-residents, regardless of its collection between domestic and foreign claims. The VAT/GDP ratio measures the consistency of the growth of VAT revenue with the corresponding growth in gross National Product. This is an indicator of the utilization of taxable capacity. Normally, the growth of VAT revenue mobilization in line with the growth in GDP is desirable for the rapid economic development of a country. The collection of VAT revenue is more reliable than the Direct tax revenue, Non tax revenue which facilitates the process of economic planning and development in the country. VAT has been introduced in Nepal to increase the contribution towards revenue generation. The contribution of VAT revenue in GDP is shown below.

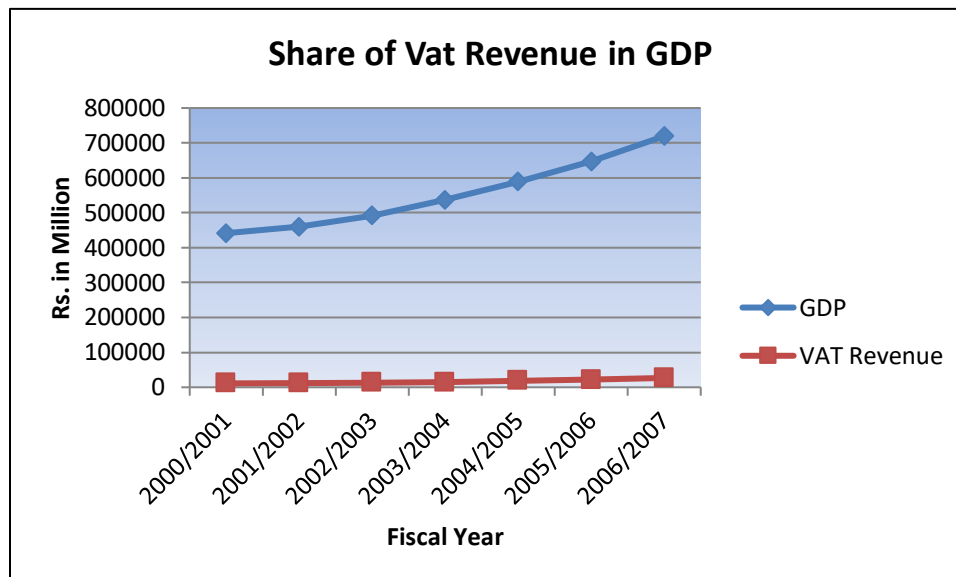
Table 26
VAT Revenue as percentage of GDP
(Rs. in million)

Fiscal Year	GDP*	VAT Revenue	% of GDP
2000/2001	413428.70	12050.00	2.91
2001/2002	430396.60	11947.95	2.78
2002/2003	460325.30	13449.12	2.92
2003/2004	500699.10	14448.89	2.89
2004/2005	548484.70	18894.63	3.44
2005/2006	611088.50	21946.01	3.64
2006/2007	675484.00	26704.18	3.98
Average	518227.96	17062.97	3.22

Source: Table 1.1, Economic Surveys 2006/2007, 2007/2008, MOF.
Macroeconomic Indicators of Nepal 2008,
Economic Reports 2008, NRB, Kathmandu

*Gross Domestic Product at current price

Fig. 9



Above table reveals that share of VAT revenue in GDP is 3.01% in an average through the analysis period. The contribution made through VAT in GDP is very low. In fiscal year 2000/2001, total amount Rs. 12050 million was collected as VAT which was only 2.73% of GDP. However, though insignificantly, the percentage shows the increasing trend, but very low percentage of GDP throughout all the years of analysis. The highest percentage i.e. 3.71% was recorded in the fiscal year 2006/2007 with VAT revenue amounting to 26704.18. So it can be said that the trend does show an increasing trend although in a snail pace which can be better seen in the graph. So in conclusion, the contribution made through VAT in GDP is very low.

4.10.3 Share of VAT Revenue in Total Revenue

Total Revenue includes Tax revenue and non-tax revenue. The contribution of VAT revenue to the total revenue has been shown in the Table 27.

Table 27

VAT Revenue as percentage of Total Revenue

(Rs. in million)

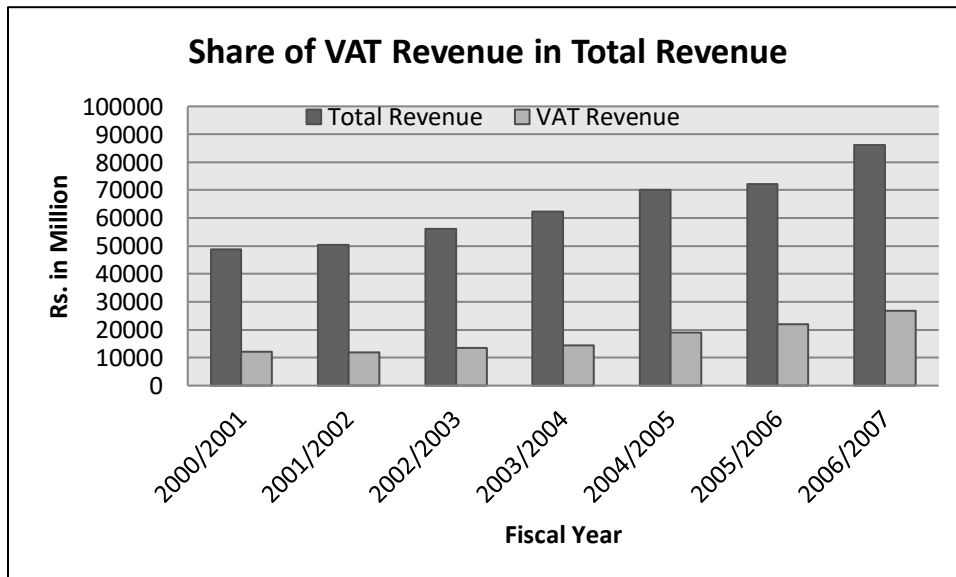
Fiscal Year	Total Revenue	VAT Revenue	% of Total Revenue
2000/2001	48893.9	12050.00	24.65%
2001/2002	50445.6	11947.95	23.68%
2002/2003	56229.7	13449.12	23.92%
2003/2004	62331	14448.89	23.18%
2004/2005	70122.7	18894.63	26.95%
2005/2006	72282.1	21946.01	30.36%
2006/2007	87712.08	26704.18	31.00%
Average	64002.44	17062.97	26.66%

Source: Table 1.1, Economic Survey 2006/2007, MOF.

Budget Speech 2006/2008, MOF.

Above table reveals that an average contribution of VAT to the total revenue is 26.75. In the fiscal year 2000/2001, its contribution was 24.65, it kept increasing in the following years ending up with 31.00%, the highest one in the fiscal year 2006/2007. The same figure can be better viewed in the following chart.

Fig. 10



4.10.4 Share of VAT Revenue in Total Tax Revenue

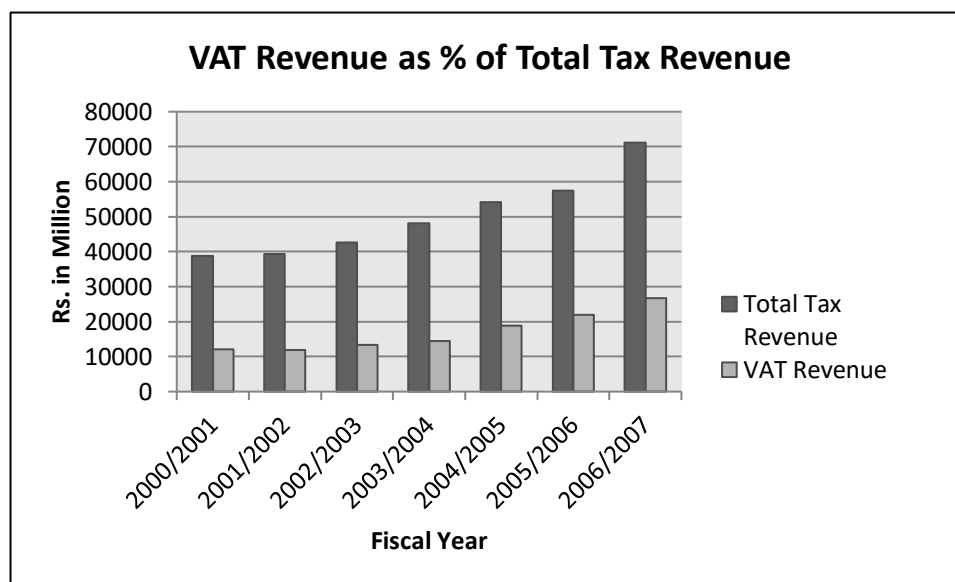
The contribution of VAT revenue to the total tax revenue has been shown in the following table.

Table 28
VAT Revenue as % of Total Tax Revenue
(Rs. in million)

Fiscal Year	Total Tax Revenue	VAT Revenue	% of Total Tax Revenue
2000/2001	38865.10	12050.00	31.00%
2001/2002	39330.60	11947.95	30.38%
2002/2003	42586.90	13449.12	31.58%
2003/2004	48173.00	14448.89	29.99%
2004/2005	54104.70	18894.63	34.92%
2005/2006	57430.40	21946.01	38.21%
2006/2007	71126.73	26704.18	37.54%
Average	50231.06	17062.97	33.97%

Source: Annual Report 2006/2007, Inland Revenue Department

Fig. 11



The above table shows that there is high share of VAT in total revenue in Nepal. In the fiscal year 2000/01, the percentage of VAT in total tax revenue is 31% similarly in the fiscal year 2006/07 it was increased to 37.54% less by 0.67% from the previous fiscal year. The average contribution of VAT to the total revenue is 33.97% which is a fraction above the half of the total tax revenue. This proves that Nepalese tax revenue without the inclusion of VAT is unthinkable.

4.11 Analysis of the Data with Various Statistical Tools

4.11.1 Time Series Analysis

A time series is an arrangement of statistical data in a chronological order, *i.e.*, in accordance with its time of occurrence. It reflects the dynamic pace of movements of a phenomenon over a period of time. Most of the series relating to Economics, Business and Commerce, *e.g.*, the series relating to prices, production, and consumption of various commodities; agricultural and industrial production, national income and foreign exchange reserves; investments, sales and profits of business houses; bank deposits and bank clearings, prices and dividends of shares in a stock exchange market, etc., are all time series spread over a long period of time. Accordingly, time series have an important and significant place in Business and Economics, and basically most of the statistical techniques for the analysis of time series data have been developed by economists. However, these techniques can also be applied for the study of behaviour of any phenomenon collected chronologically over a period of time in any discipline relating to natural and social sciences, though not directly related to economics or business. (Gupta, 1996: 754)

One of the most commonly used method is the *Least Square Method* which is employed here to measure the trend for further prediction of the GDP and VAT revenue for the next five years from the fiscal years 2007-2008 to 2012-2013 to estimate whether there may be increase in the VAT/GDP ratio from the current average of 3.22%, given the same trend. Future amount of GDP and VAT are predicted on the basis of the data of the last fiscal years.

The parameter of time series analysis for the further prediction of GDP and VAT revenue, a and b , where a is the Y interception or the computed trend figure of y variable when $X = 0$ and b represent the slope of the trend line or the amount of change

in Y variable that is associated with a changeable of one unit in x variable. The x variable in time series represents time and Y represents GDP and VAT revenue.

For predicting the amount of GDP, the parameter of the analysis, computed in the Appendix III are as follows:

$$a = 519986.70$$

$$b = 44132.47$$

Thus the trend line of dependent variable GDP and independent variable time (i.e. year) is:

$$\text{GDP (Y}_c\text{)} = 519986.70 + 44132.47 x$$

Similarly, for predicting the VAT revenue, the parameters of the analysis, computed in the Appendix III are as follows:

$$a = 17062.97$$

$$b = 2478.72$$

Where the trend line of dependent variable VAT revenue and independent variable time (i.e. year) is:

$$\text{VAT Revenue (Y}_c\text{)} = 17062.97 + 2478.72 x$$

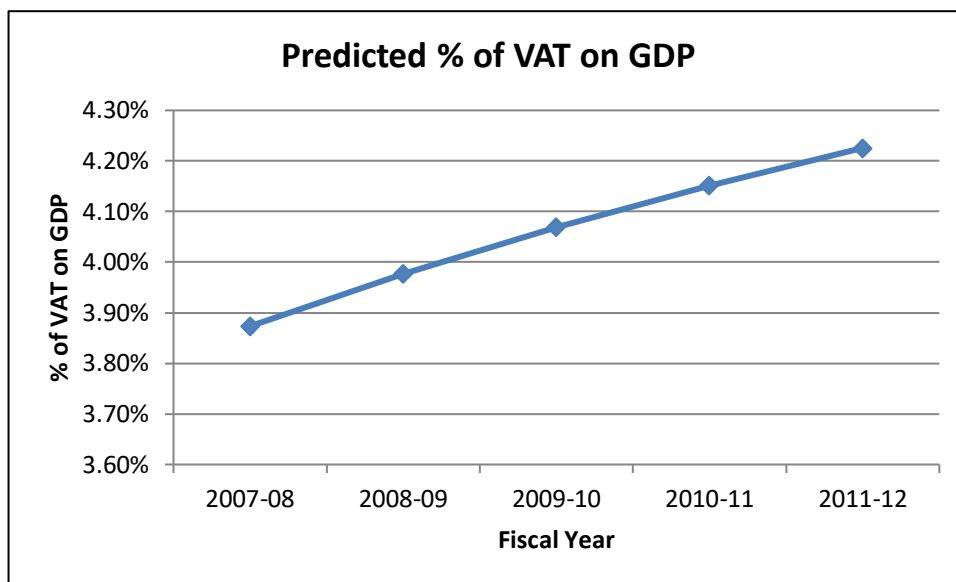
Predicted amount of GDP and VAT revenue, computed in the appendix III for the period 2007-2008 to 2011-2012 is presented in the table 29.

Table 29
Predicted GDP and VAT Revenue

(Rs. in million)					
Fiscal Year	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012
GDP	696516.57	740649.04	784781.51	828913.98	873046.44
VAT	26977.85	29456.57	31935.29	34414.01	36892.73
VAT/GDP (%)	3.87%	3.98%	4.07%	4.15%	4.23%

The table shows that given the same trend, the ratio of VAT on GDP will grow in a nominal rate in the coming future. These ratios are presented in the figure 12 as well.

Fig 12



In the figure 12, X-axis denotes years and y-axis denotes ratio of VAT on GDP. The figure depicts that the percentage of VAT of VAT on GDP will increase over 4% over the next five years.

The remarkable point is that, if VAT revenue and amount of GDP follow the same trend lines in the coming years, the target of government to increase the percentage of VAT on GDP at or beyond 4% will be achieved. But this is only nominal growth. For the phenomenal increase like up to 5 or 6% at least, there must be several things that need to be taken into considerations by the government like the good administration, VAT-education etc which were already described above.

4.11.2 Correlation Analysis

Correlation is defined as the association of two or more random variables or is the degree of relationship between variables, which seeks to determine how well a linear or other equation describes or explains the relationship between variables. The significance of correlation coefficient can be tested through t-test with certain level of significance at certain number of degree of freedom. One very convenient and useful

way of interpreting the value of coefficient of correlation between two variables is to use square of coefficient of correlation, which is called coefficient of determination.

4.11.2.1 Gross Domestic Product with Value Added Tax Revenue

The relationship of VAT revenue and GDP is examined with the help of seven year data from the fiscal year 2000/2001 to 2006/2007. Further, the relation of VAT with GDP, coefficient of determination and value, of t-test, computed in the Appendices IV are presented below:

Statistical Tools of Analysis	
Correlation Coefficient (r)	0.989
Coefficient of determination (r^2)	0.977
Value of t-test	14.64
Table value of $t_{0.05,5}$	2.571

The association of VAT revenue with GDP is very high or in other words, the VAT revenue is perfectly correlated with GDP (i.e. $r = 0.989$). The significance of correlation efficient is high which is over 5 times greater than the value of $t_{0.05,5}$ (i.e. $14.64 > 2.571$). The coefficient of determination (r^2) is 0.977 which means 97.7% of total variation in VAT revenue is explained by gross domestic product.

4.11.2.2 Total Revenue with Value Added Tax Revenue

The effect of VAT revenue to total revenue is identified with the help of six years VAT revenue from the fiscal year 2000-2001 to 2006-2007. The association of VAT and sales tax revenue with total revenue, coefficient of determination and value of t-test, computed Appendix V, and average ratio of VAT and sales tax with total revenue over the reviewed period are presented below:

Statistical Tools of Analysis	
Correlation Coefficient (r)	0.978
Coefficient of determination (r^2)	0.956
Value of t-test	10.42
Average % in total revenue	26.25

The relationship of total revenue with VAT revenue is very high. Or, there is almost linear relationship between total revenue and VAT revenue, where the calculated value of r is 0.978. The significance of correlation coefficient is also very high which is almost 4 times greater than the tabulated value of $t_{0.005,5}$ (i.e., $10.42 > 2.571$). For testing the significance of correlation coefficient, 5% level of significance has been fixed. The coefficient of determination (r^2) is 0.956 which means 95.6% of total variation in total revenue is explained by VAT revenue. The percentage of VAT revenue in total revenue over the reviewed period in an average is 26.25. This means 25.25% in total revenue is contributed by VAT revenue.

4.11.2.3 Total Tax Revenue with Value Added Tax Revenue

The effect of VAT on the total tax revenue is found out with the help of six years data from 2000-2001 to 2006-2007 on which the study has been confined. The correlation of total tax revenue with VAT and sales tax revenue, coefficient of determination and value of t-test, computed in the Appendix VI and average ratio of VAT in total tax revenue are presented below:

Statistical Tools of Analysis	
Correlation Coefficient (r)	0.992
Coefficient of determination (r^2)	0.984
Value of t-test	17.82
Average % in total tax revenue	49.78

The relationship of total tax revenue and VAT revenue is positive and very high or to put it another way, these are perfectly correlated where value of r is 0.991. The significance of correlation coefficient is also high which is more than 6 times greater than table value of $t_{0.05,5}$ (i.e., $17.48 > 2.571$). For testing the significance of correlation coefficient 5% level of significance has been fixed and degree of freedom was 5. The coefficient of determination (r^2) is 0.984 which means 98.4% of total variation in total tax revenue is explained by the VAT revenue. The average percentage of VAT in total tax over the reviewed period is 49.78. This means 49.78% in total tax revenue is contributed by VAT revenue.

4.11.2.4 Total Indirect Tax Revenue with Value Added Tax Revenue

The contribution of VAT in Total indirect tax revenue and association of total indirect tax with VAT is found out by analyzing the six years data from the fiscal year 2000-2001 to 2006-2007 on which the study has been confined. The relationship of Indirect Tax with VAT, coefficient of determination and value of t-test, computed in the Appendix VII and average of percentage of VAT on indirect tax over the studied period are summarized below:

Statistical tools for analysis	
Correlation Coefficient (r)	0.986
Coefficient of determination (r^2)	0.971
Value of t-test	13.04
Average % in total Indirect tax revenue	44.65

The association of total indirect tax and VAT is 0.986, which is very high. It can be said that it is perfectly correlated with each other. This result shows that the total indirect tax is largely affected by VAT. The significance of correlation coefficient between VAT and indirect tax revenue is also higher which is more than 5 times greater than table value of $t_{0.05,5}$ (i.e., $13.04 > 2.571$). For the purpose of testing the significance of the relation, 5% coefficient of determination (r^2) is 0.971, which means 97.1% of total variation in indirect tax revenue is explained by the VAT revenue. The contribution of VAT in indirect revenue in an average over the reviewed period has been 44.65%.

The result shows that the correlation coefficient, coefficient of determination and contribution of VAT are all higher and increased proportionately over the succeeding fiscal years although with slight hiccups in the beginning of course.

4.11.3 Hypothesis testing (Student's t-distribution)

Hypothesis testing begins with an assumption, called a *hypothesis*, that we make about a population parameter. Then we collect sample data, produce sample statistics, and use this information to decide how likely it is that our hypothesized population parameter is correct. Let us suppose that we assume a certain value for a population mean. To test the validity of our assumption, we gather sample data and determine the difference

between the hypothesized value and the actual value of the sample mean. Then we judge whether the difference is significant. The smaller the difference, the greater the likelihood that our hypothesized value for mean is correct. The larger the difference, the smaller the likelihood. (Levin & Rubin, 1996: 366).

4.11.3.1 Test of VAT/GDP and VAT/TR (Total Revenue) ratio

The Hypothesis testing tool is used here to test whether there is significant difference between the mean ratios of VAT/GDP and VAT/TR. For that the following hypothesis is established

Null hypothesis (H_0) : $\mu_1 = \mu_2$

i.e., there is no significant difference between mean ratios of VAT/GDP and VAT/TR.

Alternative hypothesis (H_1) : $\mu_1 \neq \mu_2$ (two tailed test)

i.e., there is no significant difference between mean ratios of VAT/GDP and VAT/TR.

For the purpose of testing the hypothesis, μ_1 denotes the mean of VAT/GDP ratio and μ_2 denotes the mean of VAT/TR ratio for the period of 2000-2001 to 2006-2007. Likewise, X_1 denotes VAT/GDP ratio and X_2 denotes VAT/TR ratio whereas n_1 and n_2 denote no. of years.

For the purpose of getting conclusion, (generally used) 5% level of significance is fixed ($t_{0.05}$) and degree of freedom (n_1+n_2-2) is 12. The test is two tail test (viz., *two tailed*) because the study is directed to examine whether or not there is a significant difference between those two mean ratios μ_1 and μ_2 . Thus table value of t for 5% level of significance at 12 degree of freedom (γ) is 1.782 (i.e., $t_{0.05,12} = 1.782$).

Computed value of t in Appendix VIII is 18.42, which is greater than table value (i.e., $18.42 > 1.782$). Alternative hypothesis is accepted and it can be concluded that there is significant difference between mean ratios of VAT & GDP and VAT & TR. In other words, VAT contribute lesser portion to GDP than the Total revenue.

4.11.3.2 Test of VAT/TR (Total Revenue) and VAT/TXR (Total Tax Revenue) ratio

The Hypothesis testing tool is used here to test whether there is significant difference between the mean ratios of VAT/TR and VAT/TXR. For that the following hypothesis is established

Null hypothesis (H_0) : $\mu_1 = \mu_2$

i.e., there is no significant difference between mean ratios of VAT/TR and VAT/TXR.

Alternative hypothesis (H_1) : $\mu_1 \neq \mu_2$ (two tailed test)

i.e., there is no significant difference between mean ratios of VAT/TR and VAT/TXR.

For the purpose of testing the hypothesis, μ_1 denotes the mean of VAT/TR ratio and μ_2 denotes the mean of VAT/TXR ratio for the period of 2000-2001 to 2006-2007. Likewise, X_1 denotes VAT/TR ratio and X_2 denotes VAT/TXR ratio whereas n_1 and n_2 denote no. of years.

For the purpose of getting conclusion, (generally used) 5% level of significance is fixed ($t_{0.05}$) and degree of freedom (n_1+n_2-2) is 12. The test is two tail test (viz., *two tailed*) because the study is directed to examine whether or not there is a significant difference between those two mean ratios μ_1 and μ_2 . Thus table value of t for 5% level of significance at 12 degree of freedom (γ) is 1.782 (i.e., $t_{0.05,12} = 1.782$).

Computed value of t in Appendix IX is 3.95, which is greater than table value (i.e., $3.95 > 1.782$). Alternative hypothesis is accepted and it can be concluded that there is significant difference between mean ratios of VAT & TR and VAT & TXR. In other words, VAT contribute more portion to Total Tax Revenue (TXR) than the Total revenue.

4.12 Major Findings of the study

On the basis of preceding chapters and data presentation and analysis, some important findings of the research are presented in summary as follows:

1. The VAT system that has been implemented in Nepal has completed 12 years of its operation and enters into 13 year. But the data presented in this research is only of the 10th year i.e., 1997-98 to 2006-07 due to several constraints. Due to various complexities and problems this tax system has not been able to achieve the expected level of success.
2. Theoretically VAT is superior to Sales tax in many of its form. As it was abolished already, there is no possibility to compare it with VAT now. So only theoretical superiority is established.
3. A large amount of government revenue comes from taxation. More than 75% of government revenue comes from taxation whereas the contribution of non-tax revenue is less than 25% in Nepalese tax structure. The contribution of tax revenue was expected to increase after the implementation of VAT. But implementation of VAT did not increase the contribution of tax revenue on total revenue significantly.
4. Though VAT has been implemented in Nepal in order to generate more revenue, but the efficiency of the Nepalese VAT administration is not satisfactory and not up to the expectation of the general people.
5. More revenue can be generated through VAT by widening its coverage. The small traders which fall on the threshold limit could not have been brought into VAT net yet. They should be registered. The revenue can increase by discouraging tax evasion. There is wide range of practice of evading tax.
6. Only few numbers of consumers have habit of taking bills on their purchases. Customers have no habit to take bill on their purchase. This implies that there is very low public awareness and consciousness level towards VAT. On the other hand, businessmen do not want to issue bills. The businessmen have the intension of 'malpractice' on VAT. So they don't provide bills to customers. This indicates the very need of supervision and rational auditing.

The percentage of customers demanding bills on their purchase is very low. This might be the cause of ignorance and no habit of taking bills.

Taxpayers are not satisfied with the VAT administration. Only few administrators show helpful behaviour towards them. Most of the VAT administrators complete their works very slowly and in steady manner. This type of behaviour has created great tension and frustration among taxpayers.

Professionalism has not been developed yet in VAT in Nepal. Lack of trained manpower and expertise affects the fluency of VAT administration. Physical infrastructure is also lacking. Unless and until administration is made

transparent, capable and trained, the government's intention to collect comparatively more revenue through VAT is just a daydream.

There is little knowledge about VAT to taxpayers and low public consciousness level in Nepal. To educate taxpayers and all the concerned bodies, educational programme has to be launched in an effective way. But whatever programme has been underway is not sufficient to create its impact on people. Most of the respondents suggest that Radio/TV might be best media to educate taxpayers and consumers. Newspaper might be another good alternative.

The expected amount of VAT collection is not possible due to lack of maintenance of proper accounts which is very serious problems. Billing is also a very serious problem regarding VAT collection. Customers do not have the habit of keeping bills on their every purchase and business do not feel liable to provide bills on their every sale to customers. The only motive not to provide bills is for tax evasion.

It has been noticed that traditional Nepalese businessmen do not have the habit of maintaining their account. Tax evasion is very difficult if account is properly maintained. Some are illiterate and some desire to evade tax.

Administrative incapability, under invoicing/unbilling and lack of public awareness towards VAT are main problem in the process of VAT implementation in Nepal.

7. Number of taxpayers registrants under VAT has been increasing year after year. The ratio of registrants just kept fluctuating, decreasing sharply in the fiscal year 2006/2007, to just 13.10%. This is certainly not a good sign which will have a long term bearing on revenue collection. Number of taxpayers cancelling their registration under VAT is also generally in the increasing trend, though this has reduced to 31 in the fiscal year 2006-2007.
8. The status of Non-filers is not also satisfactory. In the fiscal year 2005/2006, it had increased up to 21.63%, although it had decreased to 14.58% in the fiscal year 2006/2007. But the trend seems to be fluctuating. There is never a constant proportionate increase.
9. Credit return status in on the increasing trend from every fiscal year. Nil tax return and undecided tax return are also increasing year after year. This is not a good sign for Nepalese revenue. Unless the government is active to find out the increasing trend of credit return, nil return and undecided return, VAT cannot be the effective tool for revenue generation.
10. Upto the fiscal years 2005/2006, the government failed to meet the targeted revenue. It was only in the fiscal year 2006/2007 that it had just touched the

target in the fairly low margin. Even after the implementation of VAT 10 years ago, the government could never get rid of this dire situation.

11. In Nepal, collection of VAT has been classified as imports and domestic sources, out of which collection from imports has significant share i.e. Rs. 17014.20 million in the fiscal year 2006/2007 as compared to domestic contribution amounting to just Rs. 9689.98 or just 36.29% of the total VAT revenue in the same fiscal year. This surely indicates that there is a heavy dependence on imports rather than domestic products.
12. The contribution of VAT to GDP is just 3.22 in an average of 7 years. The contribution of VAT to GDP reached 3.98% in the fiscal year 2006/2007. So the VAT/GDP ratio is very low as indicated by the statistical tools like hypothesis testing also.
13. The contribution of VAT in total revenue is not up to the satisfactory level either. In an average, it could contribute just about 26.75% to the total revenue which is way above the VAT/GDP ratio as indicated by hypothesis testing.
14. Hopefully, an average share of VAT revenue in total tax revenue is pretty good, i.e just about 50% which simply indicates that VAT though implementationwise, faring very poorly, is still emerging as the important source of revenue generation.
15. So far as the price to the consumer is concerned, as with the sales tax, the consumer pays the same amount to the retailer. There is no difference in consumer price which paid for the product or service.
16. The Time Series shows that given the same trend, the VAT/GDP ratio is expected to rise to 4%. But this is just the estimated figure for the next 5 years. The last trend shows that the actual VAT revenue has kept falling short of its target.
17. The correlation coefficient of VAT with GDP is 0.989 and coefficient of determination is 0.977. These results show that flexibility of VAT is greater than the sales tax whose correlation coefficient and coefficient determination are 0.983 and 0.966 respectively. Likewise, the association of total revenue with VAT revenue and coefficient of determination are 0.978 and 0.956 respectively and the relationship of tax revenue with VAT revenue is 0.991 and coefficient of determination is 0.984 with its average percentage in total tax revenue being 49.78. The correlation coefficient of indirect tax with VAT and coefficient determination are 0.986 and 0.971 respectively. The contribution of VAT in indirect tax revenue is 44.65. So these result show that VAT revenue is growing

quite proportionately or head to head with GDP, Total Revenue, Total tax revenue and Total Indirect Tax Revenue.

18. Most significantly, the hypothesis that the VAT/GDP ratio is different from the VAT/Total Revenue also proved correct when it was tested using the student's t-test. All these result show that there is only nominal share of VAT revenue in GDP as contrasted with its big share with Total Revenue and Total Tax revenue.

CHAPTER - V

SUMMARY, CONCLUSION AND RECOMMENDATIONS

This chapter is the final chapter of the research which briefly deals with the summary of the study. It also tries to draw the final conclusion of the study while attempting to offer various recommendations to make the various aspects of VAT better in future.

5.1 Summary

This research work entitled, “Tax Reform in Nepal: A Study of Nepalese Value Added Tax System”, has been carried out to ponder into the theoretical knowledge of VAT and to examine the administration system of VAT especially in the Kathmandu valley, to assess the post-implementation period of VAT as compared to the period before the implementation in connection with generating revenue, to examine whether VAT is superior to Sales tax. To achieve those objectives, correlation analysis, time series analysis, t-test analysis empirical analysis have been done with the help of 7 years data (i.e. from the fiscal year 2000/2001 to 2006/2007) and questionnaire developed by the researcher.

The study has been divided into five broad chapters. The contents of those chapters are as follows:

Chapter I : Introduction

Chapter II : Review of Literature

Chapter III : Research Methodology

Chapter IV : Presentation and Analysis of Data

Chapter V : Summary, Conclusion and Recommendations

The first chapter begins with the brief background of the study, i.e., the introduction to Taxation itself, its types and all relevant information about Taxation which is essential for having some understanding about VAT, the main topic. The chapter also goes on to discuss the main focus of the study, research questions, objective of the study, significance, limitations and organization of the study. Therefore this chapter presents

the outline of the study highlighting its main aims and the reasons for carrying out the research.

In the second chapter, theoretical framework of VAT has been discussed. This chapter includes introduction to VAT, types of VAT, methods of computation of VAT, Origin vs. destination principle as dual principles of VAT, historical development of VAT around the globe and in Nepal, Coverage of VAT in Nepal and Tax administration also. Likewise in the resume of earlier studies, related materials like books, dissertations and journals have been reviewed.

The third chapter briefly explained the research design, nature and sources of data and the statistical procedure and tools which have been used to conduct the research.

The fourth chapter is the main body of the research work which has two main sections viz. presentation and analysis of data, and major findings of the study. This chapter begins with the need for reforms on the present tax system in Nepal, the reform in Tax being the VAT. Its importance was also studied. . It also tries to show the superiority of VAT to different forms of Sales tax. The study then moves on to examine the trend preceding and following the implementation of VAT in Nepal. The sample survey of 45 concerned people consisting of tax officials, Businessmen and consumers was conducted to throw light on the administration system of Nepal. About 9 questions were asked them about the various issues relating to administration of VAT in Nepal. The study also discusses the trend of registration, cancellation of registration, Non-filers. tax return, revenue collection from VAT, composition of VAT revenue, share of VAT revenue to GDP, to Total Revenue and to Total Tax revenue. The chapter then studies the future trend of GDP/VAT ratio. This was done with the statistical tool of Time Series. This will set a benchmark for the future action plan to ensure the growth of the ratio. For studying these various issues, data from the 7 fiscal years, i.e. from 2000/2001 to 2006/2007 has been used. To analyze the relationship of VAT with GDP, Total Revenue, Total Tax Revenue, and Total Indirect Tax Revenue, different statistical tools like correlation coefficient, coefficient of determination, student's t-test method for hypothesis testing were also used. After all these studies were made, the study came up with major findings which were also included in this chapter.

The fifth and final chapter contains the summary of the four earlier chapters. This chapter also has conclusion of the research and attempted to offer various suggestions and recommendations for the enhancement and betterment of VAT in Nepal.

5.2 Conclusion

The ultimate goal of the underdeveloped countries like Nepal is to achieve the economic development and ensure the rapid rate of economic growth. It calls for a huge amount of investment in economic overheads and other development activities for which taxation is undoubtedly a primary source of inland revenue for the government. Taxation may be considered as a basic tool in the path of economic development for the underdeveloped countries.

Recently, developing as well as developed countries in the world have increasingly focused their attention towards reforming the tax system by standardizing and improving the poorly designed tax structure in order to mobilize high volume of resources for the development purposes and make the economy healthy, efficient and self sufficient to a larger extent. In this regard, VAT has become a point of attraction for about 130 countries in the world including Nepal. Existed sales tax along with contract tax, entertainment tax and hotel tax were replaced by VAT since 1997 in Nepal. VAT was initially expected to have a high revenue yield due to its broader coverage and basis. Elimination economic distortions caused by tax system, elimination of cascading and pyramiding effects, creation of the competitive business environment, strengthening foreign trade etc, as it were, are other features of VAT theoretically, expected to be fulfilled in the real practice.

It was not easy for the Nepalese government to implement VAT easily as there were many objections and complaints from the business community. But after some dialogue and negotiations, the government was able to implement it to the satisfaction of all. However, there are several issues in the applicability of VAT in Nepal. One of the key issues is administrative capability and situation which definitely are of great importance for the effective implementation of VAT in Nepal. Actually VAT was introduced in Nepal in an ambitious hope to increase the revenue and particularly stop the leakage made through other forms of taxes. But history has shown that the government has already tried many reforms in the field of taxation but no alternative have effectively materialized because it lacked proper planning and in other words leading to administrative failure. Indeed, this is true in the case of VAT also, Nepalese businessmen are generally found to avoid the frequent contacts with the tax officials because they are widely known for unofficial benefits. Even in the administrative area, there is a widespread corruption. From the survey, it is clear that it is difficult for the customers to get the job done by officials without sufficiently bribing them. There is

also a red tapism everywhere. So, for the government, administrative capability and transparency are the serious concerns. In order to make VAT applicable, following things should be considered :

- i. Administrative power and credibility
- ii. Tax payer identification
- iii. Registration and educational program
- iv. Incentives for small traders
- v. Co-ordination with private sector
- vi. Feasibility of refund system
- vii. Electronic media

Currently DANIDA and GTZ have jointly established a VAT project in order to assist the implementation of VAT in Nepal. While the number of registrants are increasing but the tax collection has not been satisfactory when compared to the number of registrants. Public awareness is very low. The salesmen are not used to issuing bills and the consumers to receiving them. Undervaluation and smuggling of goods are mostly found. The problem seems to be aggravated by the government's increasing the VAT rate to 13% which immensely discourages the customer in demanding bills on their purchases.

Truly, recent increment in VAT rate has a fairly negative influence on general people. Their viewpoint is to broaden the tax base instead of increasing the tax rate. Tax rate has been increased time and again for nothing, but this does not get reflected in real revenue mobilizations. Rates should be continued for a long time for transparency and must be incorporated in VAT Act itself. So, the government has to pay serious heed in increasing the tax base instead of increasing the tax rates. International experience tells us that the gradual lowering of duties or tax rate is an effective tool in achieving the desired goals rather than increasing it.

Periodical policy has also been obstacles for its speedy enforcement, and a major hurdle that has hurt revenue generation. Excise duty is an important source for VAT, but it has not been effectively administered. Custom officials are more worried on customs duty than VAT collection. Widespread leakages are normal practices due to lack of professionalism, integrity, technically competent, and international orientation. Tax auditors have been auditing without basic knowledge and academic background. As it's weakly enforced, many sectors are out of tax net. Taxpayers complain that the procedures are complicated and time consuming during the decision-making process.

The current modality of the raffle tickets has been designed so as to seize the original bills from eighty percent of taxpayers, who pay only twenty percent of revenue. The system is not new; many countries have already tried with the lottery system, and failed gaining from it. It means, we have no valid mechanism to bring potential payers into net, and no valid mechanism has been developed on bringing them into the tax net.

The April 2005 movement (also known as the *second janandolan*) is a harbinger of new hope in Nepal. It was intended to overthrow the old feudal regime replacing it with the new sovereign and people-ruled system. Nepalese people are beginning to dream of a different New Nepal following the constituent assembly. Under such situation, the old status quo in the administrative field also must change. Surely, this is a real challenge to the administrators and the policy makers of Nepal. In other words, this is not happening at the moment. If that status quo could not be broken, no matter whatever big changes take place, they would have no influence at all. This is a real paradox. However, if the nation is to march fast enough to keep pace with the momentum of development and political change, it must come out with a new inventory of concepts and strategies as opposed to the old stereotyped ones. It is a well known fact that the industrialization of Japan, Hong Kong and South Korea was possible because of their tax policies. So under the changed system in the country, a tax system definitely could play a crucial role in course of nation-building. Sweeping and radical reforms on VAT system with a comprehensive incentive package based on VAT concept would help the economy boom.

A bold vision, evolutionary leadership, efficient bureaucrats, honest taxpayers plus collectors and graft-free society are the invisible infrastructures required. So all must think from a long-term perspective rather than weighing up immediate pros and cons. The Inland Revenue Department must come up with a forward-moving process, concrete action plan and policies to cope with the global challenges in order to accelerate the reform process.

5.3 Recommendations

On the basis of research, the following corrective measures are recommended for the better administration and implementation of VAT system in Nepal.

1. A proper co-ordination between IRD and MOF should be established. Unpractical Acts, Rules and Regulations should be amended. VAT laws needs to review on the basis of experience gained so far VAT laws should be effectively implemented.
2. Unproductive, corrupted, inefficient staff lacking practical and specialized training is a serious problem. So, providing training to such staff is highly essential.
3. The tax administration should be very watchful to prevent any kind of malpractice, fraud and tax evasion. Utmost care should be taken to prevent any kind of bribing and corruption. Tax officials should effectively be monitored.
4. Taxpayers, customers are clearly ignoring the VAT system and taking it for granted. They have lack of proper knowledge about computation of tax liability, taking invoice or bill on their purchases. So, emphasis should be given in educating the tax payers. The issuance of proper bill for every taxable sells must be made mandatory.
5. The success of VAT system is not only the success of the IRD, but also the success of nation as a whole. The role of general media, radio, TV, newspaper plays an important one. Emphasis should be given on mass media. Awareness towards VAT system should be created among general public, non-governmental and government organization.
6. Computer system and networking program through online service must be developed and linked so as to make the work simple and easy. Computer links between tax officer and custom offices should be maintained.
7. Government has been providing tax refund facility to business organization and foreign diplomacy and foreign aided project. Tax refund is one of the sources of tax leakage. Therefore, tax authority should manage tax refund facility properly.
8. Research and investigation should be conducted on various issues, such as the effect of VAT on price, economic growth, investment and measures for solving VAT problems should be recommended by the expert group. VAT law needs to be reviewed on the basis of experience gained so far.
9. The accounting system should be transparent. Taxpayers should be encouraged to register their business voluntarily. Instead of forcefully coercing tax payers, providing various facilities to them can increase VAT compliance. The tax administration can select genuine business persons and reward them.
10. Border should be effectively controlled to prevent the illegal trade. Warehouse and highways checking should be done effectively to prevent any kind of illegal trade.

11. VAT collection on import is remarkably higher than domestic production. Government should take effective steps to encourage domestic production.
12. Lots of efforts should be made to reestablish a functionally well-organized organization where the tasks are carried out in a modern, effective, efficient, transparent and service-minded manner.
13. Most of the national economic activities are dependent upon agriculture and large portion of GDP coming from agricultural sector remains out of the tax net. Thus VAT should also be levied on agriculture sector with sufficient exception for generating more tax revenue. This will increase VAT/GDP ratio.
14. Most of the taxpayers are not satisfied with VAT administrators. They always have complaints against the administrators who do their jobs rather slowly, harassing the customers unnecessarily. The work that is to be finished today is postponed for the next day. This is their habit. Therefore it is suggested that tax administrators should be consumer-focused and result oriented.
15. Lastly, the periodic information about VAT is now available on the website as well. For the researcher this is a great privilege. But the websites are not updated and doesn't have the older reports. So The website must be updated from time to time and must be kept up-to-date. And all backup copies of the old (old fiscal years') annual reports and Economic surveys must also be available on the website. This facilitates the researchers greatly and other concerned bodies, even the consumers, because for minor information, they would not have to frequent the Inland Revenue Department and Ministry of Finance.

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APPENDIX I

QUESTIONNAIRE

Dear Sir and Madam,
Namaste!

First of all, I would like to introduce myself. I am a student of Nepal Commerce Campus, currently engaged in the research work on “Tax Reform in Nepal: A Study of Nepalese Value Added Tax System” for the fulfilment of my dissertation paper on management for the Master’s Degree in Buddhist Studies (MBS), Tribhuvan University, Kathmandu. To fulfil my thesis work, I do need a kind help from you. I request you to fill up the following questionnaire. I look forward to your kind co-operation and also assure you that whatever information you provide me solely be utilized in the research work

Thank you!

Kindly provide your

Name:

Profession/Occupation: Tax/VAT official/Businessperson/Consumer (please tickmark)

Regards,

Milan Shakya
Nepal Commerce Campus
Minbhawan, Kathmandu, Nepal

Please objectively answer the questions asked below:

- Q. 1 How do you see the efficiency of Nepalese VAT administration?
- a. Good b. Bad
c. Needs improvement
- Q. 2 Which is the best way to increase public revenue through VAT?
- a. By increasing tax rate b. By widening its coverage
c. By discouraging tax evasion d. If any
- Q. 3 Do you take bill on your purchase?
- a. Yes, on all purchases b. Yes, on most of my purchases
c. Yes, but not regular d. No, I don't get any bill
- Q. 4 How many percentage of total customers demand the bill?
- a. Less than 20 b. 20-40
c. 40-60 d. 60-80
e. above 80
- Q. 5 What kind of behaviour you get from VAT administrators?
- a. Very helpful b. Helpful
c. Completing works very slowly and in steady manner d. Not working and treating badly
- Q. 6 What do you think is the major weakness in VAT administration?
- a. Lack of expertise b. Lack of trained manpower
c. Corruption & bribing d. Lack of physical infrastructure
d. Lack of sufficient field officers
- Q. 7 Which will be the best media for VAT education?
- a. Radio/TV b. Newspaper
c. Booklets/Pamphlets d. Wall printing/Banner
d. Seminars/Meetings

- Q. 8 What kind of problem is there in the process of collecting VAT?
- a. Registration
 - b. Account Keeping
 - c. Billing
 - d. Tax refunding
- Q. 9 Small traders who are registered under VAT in Nepal do not seem to be ready to keep the necessary records and accounts as required by VAT, in your opinion, what may be the reason behind that?
- a. Illiteracy
 - b. Confused about the rules and regulations
 - c. Not used to keeping records and accounts
 - d. Because tax evasion is difficult once registered under VAT
- Q. 10 What do you think is the main problem in the effective implementation of VAT in Nepal?
- a. Administrative incapability
 - b. Under invoicing/unbilling
 - c. Frequent change in Act/Rules
 - d. Lack of public awareness
 - e. Lack of long term policy and strategy
 - f. Lack of knowledge and information to taxpayers about VAT

Thank you very much

APPENDIX II

VAT Exempted Goods and Services

1.	Basic Agricultural Products	
	(a)	Paddy, rice, wheat, maize, barley, millet, buck wheat, cereals, pulses, flour coarse ground meal, grist, flat rice of paddy, gram, cow pea, peas, horse bean and similar other basic unprocessed agricultural products used in the form of food stuffs and their remains.
	(b)	Green and fresh vegetables, fresh fruit, fresh egg, edible wild roots and fruits, fresh unprocessed agricultural products used in the form of curry and edible wild roots (except those supplied by hotel, restaurant, bar, guest house, cafeteria or similar other institution).
	(c)	Unprocessed Cash Crops (such as sugarcane, cardamom, ginger and dry ginger, jute, unprocessed tobacco a farmer sells, tea leaf, certified orthodox tea produced using compost manure, tea packing box (tea chest), coffee seed, soybean, peanuts, rape seed, mustard seed, sunflower seed, sesame seed) and cake produced out of them.
	(d)	Herbs (including their extraction).
2	Goods of Basic Needs	
	(a)	Drinking water supplied openly by tap and tanker.
	(b)	Firewood and charcoal
	(c)	Kerosene oil (except aviation fuel)
	(d)	Salt
3	Live Animals and Their Products	
	(a)	Goat, He-goat, sheep, he-buffalo, yak, wild boar, pig, rabbit, and similar other animals and their unprocessed uncooked dishes.
	(b)	Cow, she-buffalo and she-goat and their fresh milk (including pasteurized) and fresh curd.
	(c)	Duck, hen, cock, turkey, guinea fowl and similar other birds and their fresh meat, unprocessed uncooked dish and egg.
	(d)	fresh or dried fish (other than packed)
4	Agricultural Inputs	
	(a)	Seeds of crops/plants, seeds of grass, graft of plant and bulb/gland used in the form of seeds.

	(b)	Manure, chemical fertilizer and soil curing materials
	(c)	Ordinary Tools Used in Agricultural Works: Hand tools used for digging and cleaning land, hand tools for cutting twigs/bushes and wood, except hand saw, hand tools used for brushing down grains and rice husk cleaning, hand tools for cutting animal feeds and blade of plough
	(d)	Chemical pesticides made completely or mainly for use in crops.
	(e)	Tractor, cultivator, harrow, leveller, animal feeds cutting machine, thresher, fish catching nets, ready made cages for rearing fishes, fish incubator, pumping set up to 8 horse power and hose pipe up to 30 meter for the set.
	(f)	Water drinking pot of fowl, chick box and egg crate.
	(g)	Feeds of bird & animal and prescribed matters of feed supplement, ingredients only.
5	Medical Treatment and Similar Health Services	
	(a)	Medical or surgical services, Medical Institution operated under government ownership or non-government organization established without profit earning motive or community health institution provide.
	(b)	Human blood and products derived from human blood and vaccines.
	(c)	Human or animal organs or tissue for use in medical research.
	(d)	Medicines for animal and human treatment and contraceptive materials.
	(e)	Pacemaker for use in treatment of heart, sten, valve of heart and equipment being made in the manner appropriate for use only by weak and disabled person.
	(f)	X-ray film and oxygen gas to be used for treatment purpose.
	(g)	Raw materials of medicines imported or purchased by the medicine industries themselves to the extent, prescribed by the Medicine Management Department.
6	Education	
	(a)	Activities concerning research conducted in schools and university.
	(b)	Professional or vocational training or refresher training without having profit earning motives
	(c)	Educational services rendered by school or university.
7	Book, Newspaper and Printed Materials	
	(a)	Book, newspaper, magazine and their printing and publication
	(b)	Newsprint paper

8	Cultural, Artistic and Sculpturing Services	
	(a)	Painting, sculpturing, architecture and other handicrafts of similar nature and services related to them.
	(b)	Cultural program.
	(c)	Entrance fee to library, museum, art gallery, zoo and botanical gardens (national park)
9	Passenger Transportation and Goods Carrying Services	
	Air Travel, transportation (except cable car) and goods carrying services (except transportation services concerning supply).	
10	Professional or Vocational Services	
	Vocational services rendered by artist, sportsman, writer, designer, translator and interpreter in an institutional or individual basis.	
11	Other Goods and Services.	
	01	Postal Services (operated by Government of Nepal only)
	a	Services relating to conveying or handing over letter, money and parcel.
	b	Other services required for rendering services relating to conveying, handing over letter, money and parcel.
	c	Postage stamps
	02	Financial and Life Insurance services
	03	Bank notes and Chequebook
	a	Issue and printing of Nepali bank notes
	b	Supply of bank notes to Nepal from out of Nepal
	c	Chequebook
	04	Gold and silver
	a	Gold, golden coins and ornaments of gold, Jewelries
	b	Silver, silver coins, readymade goods and ornaments made of silver
	05	Electricity
	06	Raw Wool
	07	Airplane, Helicopter, Fire Brigade, Ambulance, Human Dead Body Carrying Van
	08	Products of Jute
	09	Industrial machineries included in section 84 of customs tariff subject to maximum of 5% custom duty.
	10	Spinning, dying, washing and weaving of woollen carpet and woollen yarn of carpet.

	11	Cotton Sari, Lungi, Dhoti (Gents/Ladies) Petani, Gamchha
	12	Goods received in donation for natural calamity or philanthropic purpose recognized by Ministry of Finance, Government of Nepal.
	13	Goods of personal use not requiring custom duty, imported under facility of personal baggage order
12	Land and Building	
	Purchase and sale of land & building and rent (except services provided by entity operated professionally such as hotel, guesthouse)	
13	Betting, Casino and Lottery	
	Activities relating to facilities provided for betting or gambling, lottery	
	Post Script	
	The Department can do the job of interpreting and quoting harmonized code of tax exempted goods and services.	

Source: VAT Act, 2052, as amended by Finance Act, 2064

APPENDIX III

Calculation of Predicted GDP, Predicted VAT and GDP/VAT Ratio

1. Calculation of Predicted GDP

X denotes years (independent variable)

Y denotes GDP (dependent variable)

Years	x	y	xy	x ²
2000-2001	-3	413428.70	-1240286.10	9
2001-2002	-2	430396.60	-860793.20	4
2002-2003	-1	460325.30	-460325.30	1
2003-2004	0	500699.10	0	0
2004-2005	1	548484.70	548484.70	1
2005-2006	2	611088.50	1222177.00	4
2006-2007	3	675484.00	2026452.00	9
7	0	3639906.90	1235709.10	28

The equation of the straight line trend is $Y_c = a + bx$

The calculated values:

$$\Sigma y = 3639906.90, \quad N = 7, \quad \Sigma xy = 1235709.10, \quad \Sigma x^2 = 28$$

$$\therefore a = \frac{\Sigma y}{N} = \frac{3639906.90}{7} = 519986.70, \quad b = \frac{\Sigma xy}{\Sigma x^2} = \frac{1235709.10}{28} = 44132.4$$

Hence the equation of the straight line trend is $Y_c = 519986.70 + 44132.47x$

From the above equation, computation of sales tax revenue

Years	Computations	Predicted GDP
2007-2008	$519986.70 + 44132.47 \times 4$	696516.57
2008-2009	$519986.70 + 44132.47 \times 5$	740649.04
2009-2010	$519986.70 + 44132.47 \times 6$	784781.51
2010-2011	$519986.70 + 44132.47 \times 7$	828913.98
2011-2012	$519986.70 + 44132.47 \times 8$	873046.44

2. Calculation of Predicted VAT

X denotes years (independent variable)

Y denotes VAT Revenue (dependent variable)

Years	x	y	xy	x ²
2000-2001	-3	12050.00	-36150.00	9
2001-2002	-2	11947.95	-23895.90	4
2002-2003	-1	13449.12	-13449.12	1
2003-2004	0	14448.89	0	0
2004-2005	1	18894.63	18894.63	1
2005-2006	2	21946.01	43892.02	4
2006-2007	3	26704.18	80112.54	9
7	0	119440.78	69404.17	28

The equation of the straight line trend is $Y_c = a + bx$

The calculated values:

$$\Sigma y = 119440.78, \quad N = 7, \quad \Sigma xy = 69404.17, \quad \Sigma x^2 = 28$$

$$\therefore a = \frac{\Sigma y}{N} = \frac{119440.78}{7} = 17062.97$$

$$b = \frac{\Sigma xy}{\Sigma x^2} = \frac{69404.17}{28} = 2478.72$$

Hence the equation of the straight line trend is $Y_c = 17062.97 + 2478.72x$

From the above equation, computation of VAT revenue

Years	Computations	Predicted VAT
2007-2008	$17062.97 + 2478.72 \times 4$	26977.85
2008-2009	$17062.97 + 2478.72 \times 5$	29456.57
2009-2010	$17062.97 + 2478.72 \times 6$	31935.29
2010-2011	$17062.97 + 2478.72 \times 7$	34414.01
2011-2012	$17062.97 + 2478.72 \times 8$	36892.73

3. Calculation of VAT/GDP Ratio

Years	Predicted VAT	Predicted GDP	Percentage of GDP/VAT Ratio
2007-2008	26977.85	696516.57	3.87
2008-2009	29456.57	740649.04	3.98
2009-2010	31935.29	784781.51	4.07
2010-2011	34414.01	828913.98	4.15
2011-2012	36892.73	873046.44	4.23

APPENDIX IV

Computation of correlation coefficient of GDP and VAT Revenue

X denotes GDP (Gross Domestic Product) and

Y denotes VAT (Value added tax revenue)

Years	x	y	x ²	y ²	xy
2000-2001	4134.287	120.5	17092329	14520.25	498181.584
2001-2002	4303.966	119.4795	18524123.33	14275.35	514235.706
2002-2003	4603.253	134.4912	21189938.18	18087.88	619097.02
2003-2004	5006.991	144.4889	25069958.87	20877.04	723454.622
2004-2005	5484.847	188.9463	30083546.61	35700.7	1036341.55
2005-2006	6036.726	219.4601	36442060.8	48162.74	1324820.49
2006-2007	6705.887	267.0418	44968920.46	71311.32	1790752.14
7	36275.96	1194.408	193370877.3	222935.3	6506883.1

Here,

$$N = 7, \quad \Sigma x = 36275.96, \quad \Sigma y = 1194.408, \quad \Sigma x^2 = 193370877.3, \quad \Sigma y^2 = 222935.3$$

$$\Sigma xy = 6506883.1$$

$$\begin{aligned}
 r &= \frac{N\Sigma xy - \Sigma x\Sigma y}{\sqrt{N\Sigma x^2 - (\Sigma x)^2} \sqrt{N\Sigma y^2 - (\Sigma y)^2}} \\
 &= \frac{7 \times 6506883.1 - 36275.96 \times 1194.408}{\sqrt{7 \times 193370877.3 - (36275.96)^2} \sqrt{7 \times 222935.3 - (1194.408)^2}} \\
 &= \frac{2219895.738}{2245634.516} = 0.989
 \end{aligned}$$

∴ Correlation Coefficient (r) = 0.989

The Coefficient of determination (r²) = (0.989)² = 0.977

$$t = \frac{r}{\sqrt{1 - r^2}} \times \sqrt{n - 2} = \frac{0.989}{\sqrt{1 - 0.989^2}} \times \sqrt{7 - 2} = 14.64$$

The table value of t, for $\gamma = n - 2 = 7 - 2 = 5$ or $t_{0.05,5} = 2.571$

APPENDIX V

Computation of correlation coefficient of total revenue and VAT revenue

x denotes VAT revenue and
y denotes total revenue

Years	x	y	x ²	y ²	xy
2000-2001	120.5	488.939	14520.25	239061.3	58917.15
2001-2002	119.4795	504.456	14275.351	254475.9	60272.15
2002-2003	134.4912	562.297	18087.883	316177.9	75624
2003-2004	144.4889	623.31	20877.042	388515.4	90061.38
2004-2005	188.9463	701.227	35700.704	491719.3	132494.2
2005-2006	219.4601	722.821	48162.735	522470.2	158630.4
2006-2007	267.0418	861.3546	71311.323	741931.7	230017.7
7	1194.408	4464.405	222935.29	2954352	806017

Here,

$$N = 7, \quad \Sigma x = 1194.408, \quad \Sigma y = 4464.405, \quad \Sigma x^2 = 222935.29, \quad \Sigma y^2 = 2954351.72$$

$$\Sigma xy = 806016.97$$

$$r = \frac{N\Sigma xy - \Sigma x \Sigma y}{\sqrt{N\Sigma x^2 - (\Sigma x)^2} \sqrt{N\Sigma y^2 - (\Sigma y)^2}}$$

$$= \frac{7 \times 806016.97 - 1194.408 \times 4464.405}{\sqrt{7 \times 222935.29 - (1194.408)^2} \sqrt{7 \times 2954351.72 - (4464.405)^2}}$$

$$= \frac{309799.1384}{316848.5239} = 0.978$$

∴ Correlation Coefficient (r) = 0.978

The Coefficient of determination (r²) = (0.978)² = 0.956

$$t = \frac{r}{\sqrt{1-r^2}} \times \sqrt{n-2} = \frac{0.978}{\sqrt{1-0.978^2}} \times \sqrt{7-2} = 10.42$$

The table value of t, for $\gamma = n - 2 = 7 - 2 = 5$ or $t_{0.05,5} = 2.571$

APPENDIX VI

Computation of correlation coefficient of total tax revenue and VAT revenue

x denotes VAT revenue and
y denotes total tax revenue

Years	x	y	x ²	y ²	xy
2000-2001	120.5	256.9	14520.25	65997.61	30956.45
2001-2002	119.4795	255.3769	14275.351	65217.36	30512.3043
2002-2003	134.4912	268.5342	18087.883	72110.62	36115.4868
2003-2004	144.4889	309.2099	20877.042	95610.76	44677.3983
2004-2005	188.9463	365.5276	35700.704	133610.4	69065.0876
2005-2006	219.4601	402.0234	48162.735	161622.8	88228.0956
2006-2007	267.0418	515.4145	71311.323	265652.1	137637.216
7	1194.408	2372.987	222935.29	859821.7	437192.038

Here,

$$N = 7, \quad \Sigma x = 1194.408, \quad \Sigma y = 2372.987, \quad \Sigma x^2 = 222935.29, \quad \Sigma y^2 = 859821.7$$

$$\Sigma xy = 437192.038$$

$$r = \frac{N\Sigma xy - \Sigma x\Sigma y}{\sqrt{N\Sigma x^2 - (\Sigma x)^2} \sqrt{N\Sigma y^2 - (\Sigma y)^2}}$$

$$= \frac{7 \times 437192.038 - 1194.408 \times 2372.987}{\sqrt{7 \times 222935.29 - (1194.408)^2} \sqrt{7 \times 859821.7 - (2372.987)^2}}$$

$$= \frac{226030.6839}{227871.9777} = 0.992$$

∴ Correlation Coefficient (r) = 0.992

The Coefficient of determination (r²) = (0.992)² = 0.984

$$t = \frac{r}{\sqrt{1-r^2}} \times \sqrt{n-2} = \frac{0.992}{\sqrt{1-0.992^2}} \times \sqrt{7-2} = 17.48$$

The table value of t, for $\gamma = n - 2 = 7 - 2 = 5$ or $t_{0.05,5} = 2.571$

APPENDIX VII

Computation of correlation coefficient of total indirect tax revenue and VAT revenue

x denotes VAT revenue and
y denotes total indirect tax revenue

Years	x	y	x ²	y ²	xy
2000-2001	120.5	287.057	14520.25	82401.72	34590.37
2001-2002	119.4795	287.331	14275.351	82559.1	34330.16
2002-2003	134.4912	324.812	18087.883	105502.8	43684.36
2003-2004	144.4889	362.604	20877.042	131481.7	52392.25
2004-2005	188.9463	410.329	35700.704	168369.9	77530.15
2005-2006	219.4601	434.623	48162.735	188897.2	95382.41
2006-2007	267.0418	521.4644	71311.323	271925.1	139252.8
7	1194.408	2628.22	222935.29	1031137.5	477162.5

Here,

$$N = 7, \quad \Sigma x = 1194.408, \quad \Sigma y = 2628.22, \quad \Sigma x^2 = 222935.29, \quad \Sigma y^2 = 1031137.5$$

$$\Sigma xy = 477162.5$$

$$r = \frac{N\Sigma xy - \Sigma x\Sigma y}{\sqrt{N\Sigma x^2 - (\Sigma x)^2} \sqrt{N\Sigma y^2 - (\Sigma y)^2}}$$

$$= \frac{7 \times 477162.5 - 1194.408 \times 2628.22}{\sqrt{7 \times 222935.29 - (1194.408)^2} \sqrt{7 \times 1031137.5 - (2628.22)^2}}$$

$$= \frac{200970.4621}{203903.7008} = 0.986$$

∴ Correlation Coefficient (r) = 0.986

The Coefficient of determination (r²) = (0.986)² = 0.971

$$t = \frac{r}{\sqrt{1-r^2}} \times \sqrt{n-2} = \frac{0.986}{\sqrt{1-0.986^2}} \times \sqrt{7-2} = 13.04$$

The table value of t, for $\gamma = n - 2 = 7 - 2 = 5$ or $t_{0.05,5} = 2.571$

APPENDIX VIII

Student t-test (Test of Hypothesis)

Test of VAT/GDP & VAT/TR Ratio from the fiscal year of 2000/2001 to 2006/2007

X_1 denotes VAT/GDP Ratio

X_2 denotes VAT/TR (Total Revenue) Ratio

X_1	$X_1 - \bar{X}_1$	$(X_1 - \bar{X}_1)^2$	X_2	$X_2 - \bar{X}_2$	$(X_2 - \bar{X}_2)^2$
2.91	-0.31286	0.09788	24.65	-1.60	2.56
2.78	-0.44286	0.196122	23.68	-2.57	6.60
2.92	-0.30286	0.091722	23.92	-2.33	5.42
2.89	-0.33286	0.110794	23.18	-3.07	9.42
3.44	0.217143	0.047151	26.95	0.70	0.49
3.64	0.417143	0.174008	30.36	4.11	16.90
3.98	0.757143	0.573265	31.00	4.75	22.58
22.56	0	1.290943	183.74	0	63.96

Here,

$$n_1 = n_2 = 7, \quad \Sigma X_1 = 22.56, \quad \Sigma X_2 = 183.74, \quad \bar{X}_1 = \frac{\Sigma X_1}{n_1} = \frac{22.56}{7} = 3.22,$$

$$\bar{X}_2 = \frac{\Sigma X_2}{n_2} = \frac{183.74}{7} = 26.25, \quad \Sigma(X_1 - \bar{X}_1)^2 = 1.29, \quad \Sigma(X_2 - \bar{X}_2)^2 = 63.96$$

Now,

$$s = \sqrt{\frac{\Sigma(X_1 - \bar{X}_1)^2 + \Sigma(X_2 - \bar{X}_2)^2}{n_1 + n_2 - 2}}$$

$$= \sqrt{\frac{1.29 + 63.96}{7 + 7 - 2}} = \sqrt{\frac{65.25}{12}} = \sqrt{5.44} = 2.33$$

Calculation of t

$$t = \frac{\bar{X}_1 - \bar{X}_2}{s \sqrt{\frac{1}{n_1} + \frac{1}{n_2}}} = \frac{3.22 - 26.25}{2.33 \sqrt{\frac{1}{7} + \frac{1}{7}}} = \frac{-23.03}{1.25} = -18.47 \text{ or } |t| = 18.47$$

The table value of t for 5% level of significance at 12 degree of freedom (γ) $t_{0.05,12} = 1.782$

APPENDIX IX

Student t-test (Test of Hypothesis)

Test of VAT/TR & VAT/TXR (Total Tax Revenue) Ratio from the fiscal year of 2000/2001 to 2006/2007

X_1 denotes VAT/TR (Total Revenue) Ratio

X_2 denotes VAT/TXR (Total Tax Revenue) Ratio

X_1	$X_1 - \bar{X}_1$	$(X_1 - \bar{X}_1)^2$	X_2	$X_2 - \bar{X}_2$	$(X_2 - \bar{X}_2)^2$
24.65	-1.60	2.56	31.00	-2.37	5.64
23.68	-2.57	6.60	30.38	-2.99	8.97
23.92	-2.33	5.42	31.58	-1.79	3.22
23.18	-3.07	9.42	29.99	-3.38	11.45
26.95	0.70	0.49	34.92	1.55	2.39
30.36	4.11	16.90	38.21	4.84	23.38
31.00	4.75	22.58	37.54	4.17	17.35
183.74	0	63.96	233.62	0	72.40

Here,

$$n_1 = n_2 = 7, \quad \Sigma X_1 = 183.74, \quad \Sigma X_2 = 233.62, \quad \bar{X}_1 = \frac{\Sigma X_1}{n_1} = \frac{183.74}{7} = 26.25,$$

$$\bar{X}_2 = \frac{\Sigma X_2}{n_2} = \frac{233.62}{7} = 33.37, \quad \Sigma(X_1 - \bar{X}_1)^2 = 63.96, \quad \Sigma(X_2 - \bar{X}_2)^2 = 72.40$$

Now,

$$s = \sqrt{\frac{\Sigma(X_1 - \bar{X}_1)^2 + \Sigma(X_2 - \bar{X}_2)^2}{n_1 + n_2 - 2}}$$

$$= \sqrt{\frac{63.96 + 72.40}{7 + 7 - 2}} = \sqrt{\frac{136.37}{12}} = \sqrt{11.36} = 3.37$$

Calculation of t

$$t = \frac{\bar{X}_1 - \bar{X}_2}{s \sqrt{\frac{1}{n_1} + \frac{1}{n_2}}} = \frac{26.25 - 33.37}{3.37 \sqrt{\frac{1}{7} + \frac{1}{7}}} = \frac{-7.13}{1.80} = -3.95 \text{ or } |t| = 3.95$$

The table value of t for 5% level of significance at 12 degree of freedom (γ) $t_{0.05,12} = 1.782$