

# **A STUDY ON EFFECTIVENESS OF VAT SYSTEM IN NEPAL**

**A Thesis Submitted to  
Office of the Dean  
Faculty of Management  
Tribhuvan University**

**In Partial Fulfillment of the requirement for the Degree of  
Master of Business Studies (M.B.S.)**

**By:**  
**Atma Bahadur Suryabamsi**  
**Tribhuvan Multiple Campus**  
**T.U. Registration No: 7-2-302-9-2003**

Tansen, Palpa

2012



त्रिभुवन विश्वविद्यालय  
Tribhuvan University  
त्रिभुवन बहुमुखी क्याम्पस  
Tribhuvan Multiple Campus

तानसेन, पाल्पा, नेपाल  
Tansen, Palpa, Nepal  
☎ 075-520030, 520114, 520116  
Fax : 075-520114  
क्याम्पस प्रमुखको कार्यालय  
Office of the Campus Chief

प.सं./Ref No. :-  
च.नं. :-

मिति/Date:-

## RECOMMENDATION

This is to certify that Mr. Atma Bahadur Suryabamsi has prepared the Thesis entitled “A STUDY ON EFFECTIVENESS OF VAT SYSTEM IN NEPAL” under my supervision .It embodies has original and independent work. I am fully satisfied with the work in terms of its literature review, research methodology, presentation and analysis of data and over all research work.

This Thesis has been prepared in the form as required by the faculty of management for the partial fulfillment of the Master's Degree in Business Studies (M.B.S.)

It is forwarded for the examination. I recommended this Thesis for approval as acceptance.

.....  
Sujoy Pradhan  
Thesis Supervisor



त्रिभुवन विश्वविद्यालय  
Tribhuvan University  
त्रिभुवन बहुमुखी क्याम्पस  
Tribhuvan Multiple Campus

तानसेन, पाल्पा, नेपाल  
Tansen, Palpa, Nepal  
☎ 075-520030, 520114, 520116  
Fax : 075-520114  
क्याम्पस प्रमुखको कार्यालय  
Office of the Campus Chief

प.सं./Ref No. :-

च.नं. :-

मिति/Date:-

## Approval Sheet

This is to certify that the thesis

Submitted by :

Atma Bahadur Suryabamsi

Entitled :

**A STUDY ON EFFECTIVENESS OF VAT SYSTEM IN NEPAL**

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

.....

**Sujay Pradhan**

(Thesis Supervisor)

.....

**Santosh Lal Shrestha**

(Head of Research Committee)

.....

**Keshav Raj Sharma**

(Campus Chief)



त्रिभुवन विश्वविद्यालय  
Tribhuvan University  
त्रिभुवन बहुमुखी क्याम्पस  
Tribhuvan Multiple Campus

तानसेन, पाल्पा, नेपाल  
Tansen, Palpa, Nepal  
☎ 075-520030, 520114, 520116  
Fax : 075-520114  
क्याम्पस प्रमुखको कार्यालय  
Office of the Campus Chief

प.सं./Ref No. :-

च.नं. :-

मिति/Date:-

## VIVA-VOCE SHEET

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

By

**Atma Bahadur Suryabamsi**

Entitled:

"A STUDY ON EFFECTIVENESS OF VAT SYSTEM IN NEPAL" is found to be the original work of the student and written according to the prescribed format. We recommend this thesis to be accepted as partial fulfillment of the requirement for Master Degree of Business Studies (M.B.S.)

### Viva-Voce Committee

Chairman, Research Committee .....

Santosh Lal Shrestha

Member (Thesis Supervisor) .....

Sujay Pradhan

Member (External Expert) .....

Date :-

## **DECLARATION**

I, hereby, declare that the work reported in this thesis entitled “**A STUDY ON EFFECTIVENESS OF VAT SYSTEM IN NEPAL**” submitted to Office of the Dean, Faculty of Management, Tribhuvan University, is my original work done in the form of partial fulfillment of the requirement for the degree of Master of Business Studies (M.B.S) under the supervision of **Mr Sujay Pradhan of Tribhuvan Multiple Campus, Tansen, Palpa .**

.....

Atma Bahadur Suryabamsi

Tribhuvan Multiple Campus

Campus Roll No.: 03/063-066

T.U. Regd. No.: 7-2-302-9-2003

## ACKNOWLEDGEMENT

As per the partial fulfillment of the MBS degree, I have prepared this thesis entitled “A STUDY ON EFFECTIVENESS OF VAT SYSTEM IN NEPAL”. During the course, I worked with sincerity, honesty and diligently, as far as possible. But beside my continual efforts, I also got outstanding suggestions, kind supports, guidance and inspirations from various personalities. I am extremely grateful and overwhelmed by their support while completing my work.

Firstly, I would like to express my cordial gratitude to my respected and honorable all teachers, who taught me up to now. For this thesis, I would like to express my sincere thanks and deep appreciation to my respected thesis supervisor **Mr. Sujay Pradhan** for his magnificent guidance and suggestions. Similarly my special thanks go to my respected teachers Campus chief **Mr. Keshab Raj Sharma**, research department head **Mr. Santosh Lal Shrestha**, head of management department **Mr. Yuba Raj Paudyal**, **Mr. Nirdosh Khanal**, **Mr. Lila Ballab Dhakal**, for their kind cooperation during the study period. I am extremely indebted by their kind supports despite of their busy schedule.

I would like to express my deep appreciation to my father and mother as well as family members who headed me towards the light of education and path of truth. Due to their non-stopping effort for guidance, today I come in this position. So I would like to share the credit of my success with them. I am really indebted by them.

I am also thankful to **Mr. Tanka Mani Sharma** (Director General at IRD) and staffs at IRD, NRB, various IROs for providing valuable suggestions and providing me the data, reports and bulletins.

I would also like to express my gratitude to all other members of Tribhuvan Multiple Campus, especially, lecturers from MBS department and library staffs of the campus as well as Central Library. I am thankful to all who directly or indirectly supported as well as inspired me to complete this thesis. At last I am thankful to **Mr. Bal Krishna Bhandari** for his magnificent typing and computer setting.

**Atma Bahadur Suryabamsi**

## **TABLE OF CONTENTS**

Recommendation	I
Approval Sheet	II
Viva-Voce Sheet	III
Declaration	IV
Acknowledgement	V
Table of Contents	VI
List of Tables	IX
List of Figures	XI
Abbreviations	XII

### **CHAPTER-I**

#### **INTRODUCTION**

1.1 Background of the Study	1
1.2. Constituents of VAT Administration in Nepal	4
1.3 Focus of the study	5
1.4 Statement of Problem	5
1.5 Objectives of the Study	7
1.6 Significance of the Study	7
1.7 Limitations of the Study	8
1.8 Organization of the Study	8

### **CHAPTER-II**

#### **REVIEW OF LITERATURE**

2.1 Conceptual Framework/Theoretical Review	10
2.2 VAT in Nepal	30
2.3 Review of Literature	50
2.4 Research Gap	65

## **CHAPTER – III**

### **RESEARCH METHODOLOGY**

3.1 Introduction	66
3.2 Research Design	66
3.3 Population and Samples	66
3.4 Sources of Data	67
3.5 Data Collecting Procedure	68
3.6 Data Analyzing/Processing Procedure	68

## **Chapter – IV**

### **DATA PRESENTATION AND ANALYSIS**

4.1 Resource Gap in Nepal	73
4.2 Revenue Structure of Nepal	75
4.3 Structure of Tax Revenue	77
4.4 Current VAT situation in Nepal	80
4.5 VAT Registration Status	81
4.6 VAT Cancellation (Deregistration)	83
4.7 Non-Filers	84
4.8 Tax Returns	85
4.9 Revenue Collection from VAT	87
4.10 Composition of VAT Revenue	89
4.11 Contribution of VAT Revenue to Gross Domestic Product (GDP)	91
4.12 Contribution of VAT Revenue to Total Revenue	92
4.13 Contribution of VAT Revenue in Total Tax Revenue	93
4.14 Contribution of VAT Revenue to Total Indirect Tax Revenue	94
4.15 Structural Analysis of Internal VAT	96
4.16 Structural Analysis of External VAT	98
4.17 Collection Ratio of Internal VAT and External VAT	100
4.18 Empirical Study	102
4.19 Results of Empirical Study	102
4.19.1 VAT Administration	102
4.19.2 VAT as the best way to Increase Public Revenue	104
4.19.3 Habit of taking Bills on Purchases	105

4.19.4 VAT Education	106
4.19.5 Weaknesses in VAT Administration	107
4.19.6 Behavior of VAT Administrator towards Taxpayers	107
4.19.7 Problems in VAT Collection	108
4.19.8 Problems in Account Keeping	109
4.19.9 Problems in the implementation of VAT	110
4.20 Analysis of the Data with Various Statistical Tools	111
4.20.1 Time Series Analysis	111
4.20.1.1 Trend Values of VAT & GDP	111
4.20.2 Correlation, Coefficient of determination, Probable Error and T-test Analysis	113
4.20.2.1 Gross Domestic Product with Value Added Tax Revenue	114
4.20.2.2 Total Revenue with Value Added Tax Revenue	115
4.20.2.3 Total Tax Revenue with Value Added Tax Revenue	115
4.20.2.4 Total Indirect Tax Revenue with Value Added Tax Revenue	116
4.20.3 Hypothesis Testing (Student's t-distribution)	117
4.20.3.1 Signaling Effect/Events Study	117
4.20.4 Analysis of Free Opinions of Respondents	120
4.20.5 Major Findings of the Study	122
4.20.5.1 Findings from the Secondary Data	122
4.20.5.2 Findings from the Primary Data	128

## **CHAPTER V**

### **SUMMARY, CONCLUSION AND RECOMMENDATIONS**

5.1 Summary	130
5.2 Conclusion	132
5.3 Recommendations	138

### **Bibliography**

### **Appendix**

## LIST OF TABLES

<b>Table No.</b>	<b>Titles:</b>	<b>Page No.</b>
2.1	Calculation of VAT under the Credit Method	18
2.2	Calculation of VAT under Subtraction Method	18
2.3	Calculation of VAT under Addition Method	19
2.4	Implementation of VAT in Different Countries	29
3.1	Group of respondents and size of Sample from each group	67
4.1	Resource Gap in Nepal	74
4.2	Revenue Trend in Nepal	75
4.3	Structure of Total Tax Revenue	78
4.4	Current VAT situation in Nepal	80
4.5	Year-wise number of VAT Registrants	81
4.6	Year-wise number of VAT Cancellation/Deregistration	83
4.7	Year-wise Number of Non Filers	84
4.8	Status of Tax Returns	86
4.9	Revenue collection from VAT	88
4.10	Composition of VAT Revenue	90
4.11	Contribution of VAT Revenue to GDP	91
4.12	Contribution of VAT Revenue to Total Revenue	92
4.13	Contribution of VAT Revenue to Total Tax Revenue	93
4.14	Contribution of VAT to Total Indirect Tax Revenue	95
4.15	VAT Collection from Internal Sources	96
4.16	VAT Collection from External Sources	98
4.17	Collection Ratio of Internal VAT and External VAT	100
4.18	Average Collection Ratio of Internal VAT & External VAT	101
4.19	Group of Respondents and Number	102
4.20	Efficiency of Nepalese VAT Administration	103
4.21	Best way to Increase Public Revenue through VAT	104
4.22	Habit of taking bills on Purchase	105
4.23	Effective Media for VAT Education	106
4.24	Weaknesses in VAT Administration	107
4.25	Behavior of VAT Administrator towards Taxpayers	108

4.26	Problems in VAT collection	109
4.27	Problems in Account keeping	110
4.28	Problems in Implementation of VAT	110
4.29	Predicted GDP and VAT Revenue	112
4.30	Result from t-test	119

## LIST OF FIGURES

<b>Figure No.</b>	<b>Titles:</b>	<b>Page No.</b>
3.1	Research methodology in single schematic diagram	72
4.1	Revenue Trend in Nepal	77
4.2	Structure of Total Tax Revenue	79
4.3	Trend of VAT Registrants	82
4.4	Number of VAT Cancellation/Deregistration	84
4.5	Status of VAT Non Filers	85
4.6	Status of Tax Returns	87
4.7	Revenue collection from VAT	89
4.8	Composition of VAT Revenue	90
4.9	Contribution of VAT Revenue to GDP	92
4.10	Contribution of VAT Revenue to Total Revenue	93
4.11	Contribution of VAT Revenue to Total Tax Revenue	94
4.12	Contribution of VAT to Total Indirect Tax Revenue	95
4.13	Structural Analysis of Internal VAT	98
4.14	VAT Collection from External Sources	99
4.15	Collection Ratio of Internal VAT and External VAT	101
4.16	Average Collection Ratio of Internal VAT & External VAT	101
4.17	Trend Line of VAT/GDP Ratio	113

## ABBREVIATIONS

&	:	And
B.S	:	Bikram Sambat
C-VAT	:	Consumption Type Value Added Tax
DANIDA	:	Danish International Development Agency
DG	:	Director General
e.g.	:	For example
EC	:	European Community
Ed.	:	Education
EEC	:	European Economic Community
Fig.	:	Figure
FNCCI	:	Federation of Nepalese Chamber of Commerce and Industry.
F/Y	:	Fiscal Year
GAAP	:	Generally Accepted Accounting Principle
GDI	:	Gross Domestic Income
GDP	:	Gross Domestic Product
GON	:	Government of Nepal
Govt.	:	Government
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
IMF	:	International Monetary Fund
IRD	:	Inland Revenue Department
I-VAT	:	Income Type Value Added Tax
M.B.S	:	Master of Business Studies
Mgmt.	:	Management
MIS	:	Management Information System
MOD VAT	:	Modified Value Added Tax
MOF	:	Ministry of Finance
MST	:	Multi-stage Sales Tax (also Manufacture Level Sales Tax)

NCC	:	Nepalese Chamber of Commerce
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
SN	:	Serial Number
T.U	:	Tribhuvan University
TPIN	:	Tax Payer's Identification Number
TR	:	Total Revenue
TTR	:	Total Tax Revenue
UN	:	United Nations
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 – I

## INTRODUCTION

### 1.1 Background of the Study

The government of a country needs adequate amount of funds to finance its regular as well as development activities to be carried out. The government collects the funds needed mainly from two sources- debt and revenue. The debt can be raised within the country as internal debt and can be obtained from outside the country as external debt. The debt financing of the government is also called deficit financing. The revenue fund of the government comes basically from two sources- tax revenue and non- tax revenue. Non-tax revenue comprises different sources like administrative incomes, business incomes, grants and gifts etc. Another source of government is taxation. The tax revenue comprises the sources like customs, excise duties, income tax, value added tax (VAT) etc. The main objective of tax revenue is to collect revenue.

Nepal is a developing country located in south Asia. Now a day, the government expenditure is increasing because of increment in population, development activities, social change, aggregate market demand, general price level, national income etc. To meet the growing public expenditure, the government has to manage its funds from external as well as internal sources. We know that external sources are uncertain, inconvenient and not good for healthy development of nation because they have to be paid after a certain time and even more so increases dependency on foreign hands. Foreign aids are not bad for economic development of the nation. But the experiences in most of the developing countries shows that there are negative effects of increasing international grants and loans to finance the public development activities.. So, it is better to- mobilize internal sources rather than external sources. The government should depend on its own resources for generating revenue to spend these regular as well as development activities. Hence it is better to raise the revenue from internal sources. Therefore taxation is the main source of the government revenue. Nepal gets around 89.77 percent of the revenue from tax revenue. (Annual Budget speech 2011-12 annex 1, actual data 2009/2010)

The term " tax " defined as a liability to pay an amount to the government. It is a compulsory contribution to the national revenue from the taxpayers according to

law. It is used for common interest of the people. The taxpayer does not receive any direct personal benefits for the payment of tax. According to Prof. Seligman –“ tax is a compulsory contribution from a person to the government to defray expenses incurred in the common interest of all without reference to special benefit conferred.”. Hence it can be said that a tax is a liability to pay an amount to the state. The taxes are broadly categorized into two types on the basis of shifting of tax burden. They are Direct Taxes and Indirect Taxes. According to Dalton, “A direct tax is really paid by the same person on whom it is legally imposed.” Direct tax is a tax on income and property. The examples of Direct taxes are income tax, property tax, vehicle tax, inheritance tax and so forth.

In contrast to direct tax, an indirect tax is that tax where the person paying the tax and the person bearing the tax are different. In the words of Dalton, “An indirect tax is imposed on one person but paid partly or wholly by another.” An indirect tax is a tax on goods and services. The examples of indirect taxes are customs, excise duties, value added tax and so on.

Taxes are major fiscal policy instruments and important government policy tools. They 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, taxation may be used to make the maximum volume of resource available to the 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 dispersed over speculative and unproductive investment as well as over luxurious consumption. Thus, taxes in developing countries are the vital means of raising revenue.

The major taxes in Nepal are Custom Duty, Value Added Tax, Income Tax, Excise Duty and Local Tax. Out of them, an important and most recent innovation in the field of Taxation is Value Added Tax (VAT). It is considered as one of the most powerful tool of the fiscal policy. From the long experience of VAT in several countries, many economists as well as policy makers have concluded that VAT is probably the best in indirect 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 referred 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. It has gained universal popularity within the short span of time.

Value Added Tax (VAT) is imposed on the value-added portion in different stages of production and distribution channels. It is an improved and modified form of sales tax. VAT is a tax imposed on the value added in each stage of economic activity from production to consumption. That's to say, VAT is charged to value addition done at each stage to make the products available to final consumers. Ultimately, the real and final burden of tax is shifted towards the consumers who consume goods and enjoy the services.

'VAT system was propounded by Dr. Wilhelm Von Siemens of Germany in 1919 A.D. Then it was developed further in 1949 by a tax mission to Japan headed by Prof. Carl S. Shoup. But it remained as only topic of academic study and research until 1953. However the credit of introducing the VAT at first goes to France. This country introduced VAT in 1954. By the end 1960s, only eight countries adopted VAT. It is being introduced by at least one country each year and by now it has been adopted by more than 150 countries' (VAT Directives 2069, IRD, Nepal: 5). 'In south Asia Pakistan adopted a VAT in 1990. Bangladesh and Shrilanka introduced since 1991 and 1995 respectively. Also in India, VAT is adopted in restricted form called 'modified value added tax (MOD VAT)' with effect from 1986. The MOD VAT was limited in scope it covered only a half of the revenue collected. India adopted full VAT since the year 1999' (Kandel, 2003:270).

Nepal also changed its policy and strategy to achieve more internal resources by replacing sales tax by Value added tax (VAT). The concept of VAT in Nepal was introduced in early of 1990's. Nepalese government included the concept of introducing VAT in Nepal in its eight five year plan. Finance Act 1992 and 1994 introduced two tier sales tax to make the base of implementing the VAT. A VAT task

force was formulated in 1993 with technical assistance of USAID which suggested the steps to be followed while implementing the VAT in Nepal. It drafted the VAT law as well. High level tax system review task force suggested implementing VAT in Nepal in 1995{2052}”, VAT Act was enacted in 2052 B.S (1995 A.D) and VAT rules were enacted in 1996 respectively .VAT with single rate of 10% implemented with effect from 16 November 1997 (Mangier1, 2054 BS)' (VAT Directives 2069, IRD, Nepal). It replaced sales tax, hotel tax, contract tax and entertainment tax. VAT is a new tax system for Nepal. The government of Nepal has increased the rate of VAT to 13% with its effect from 15 February 2004 (Magh, 1, 2061). The VAT is broad -based Tax as it 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 minimize tax evasion. It is also regarded as the backbone of income Tax system in Nepal.

The current threshold for VAT registration is RS.2 million. Those Vendors whose annual turnover is below the threshold can, however, register voluntarily. There is persistent increase in the number of VAT registrants. It has crossed the 97733 VAT registrations according to the Annual Report of F/Y 2010/2011 published by Inland Revenue Department of Nepal. At the time of conversion from sales Tax to The VAT a total of 2045 taxpayers were converted as VAT registrants. As the taxpayers are increasing, the amount of revenue collection and the level of tax compliance are improving.

## **1.2 Constituents of VAT Administration in Nepal**

- Ministry of Finance
- Inland Revenue Department
- Revenue Investigation Department
- Revenue Consultancy Committee
- Office of High Tax Payers
- Inland Revenue Offices
- District Treasury and comptroller’s office

## **1.3 Focus of the study**

The main focus of the study will be on the effectiveness of VAT system in Nepal in relation to the revenue productivity, its contribution to the tax revenue, analysis of trend of VAT registration and return, analysis on the satisfaction of VAT payers, initiatives taken by the Nepalese government through policies, plans, strategies, fine and penalties system and identifying the key factors for effective implementation of the VAT in Nepal.

#### **1.4 Statement of Problem**

Nepal is a developing country located in South Asia. Nepal is facing the problem of resource gap and deficit financing. After the restoration of democracy, the Nepalese Government is adopting the ambitious development expenditure and revenue collection targets. As compared to the increase in development expenditures, the revenue collection targets are not achieved successfully except in the FY 2010/2011 (2066/067) which can be considered as the consequence of ineffective implementation. In order to minimize the resource gap, VAT is taken as an important means. In France, it is the most important source of state finance, accounting for nearly 50% of state revenues (Wikipedia on [www.wikipedia.com](http://www.wikipedia.com)).

VAT system is more scientific and new innovation in the field of taxation which enhances the potentiality of taxation by broadening and minimizing the tax leakage. There is a global trend of tax reform. By the influence of this trend, Nepal adopted the VAT system with effect from 16 November 1997 (Mangier1, 2054 BS) after enacting the VAT act and VAT related rules in 1996. After tax reform programs in Nepal, the VAT system is gradually improving in order to mobilize the internal resource. The VAT contributes 30-40 percent of the total tax revenue in Nepal (Annual Report 2066 IRD Nepal). During the starting period of VAT implementation, government had made a great effort to make VAT more effective and productive. However, VAT was subject to a strict opposition from the business community in the period of introduction. Later, there were some correction in VAT rules and regulation and then the business community slowly accepted the system and further demanded it to be extended up to retail level.

In Nepal, Tax Department and Value Added Tax (VAT) Department were merged into one Inland Revenue Department (IRD) in the year 2002. Prior to the merger, income tax was under the jurisdiction of Tax Department, whereas the excise

duty and value added tax were under the jurisdiction of Value Added Tax Department. Since the merger, IRD is responsible for formulation and implementation of tax policy and the administration of various taxes such as income tax, value added tax, house rent tax, interest tax and excise duty. There are 22 Inland Revenue Offices (IROs) and one Large Taxpayer Office (LTO) under the Department. These offices are responsible for day-to-day collection of tax. The registration data of taxpayers maintained in the department shows that the total number of taxpayers in Nepal as at the end of Falgun 2066 (mid-March 2010) was over 400 thousands. However, it is estimated that only about 60 percent of them, about 240,000, are regular filers' (GTZ, 2010).

Inland Revenue Department has introduced an e-System and has been motivating taxpayers to use it in the past few years. Various donor agencies, the major two being DANIDA and GTZ, have provided technical and financial support not only for initiating the e-System but also for its strengthening and upgrading for almost one and a half decade. Revenue generation at optimum level is always desired and various measures have been taken to encourage taxpayers for voluntary compliance. It is expected that the tax compliance rate increases based on various factors including the satisfaction of taxpayers with the tax policies, their implementation and the end uses of the tax collected. The government of Nepal has made many amendments in VAT act 2052 (1995) and Vat Rule 2053 (1996).

Although, there are many correction and reforms in relation to the VAT act & rules, government plans and policies and administrative policies of Inland Revenue Department, the effective management & implementation of VAT is a great challenge in Nepal. The desired increase rate of VAT collection are not being achieved, it's contribution to the Total revenue, Total Tax Revenue & GDP is low, Vat Registration & returns are increasing in low rate, VAT evasion is widespread with flattening the VAT bills, VAT act & Rules are not implemented effectively, the Government Plans and policies are also being limited only in papers as compared to their implementation. Hence, what is the effectiveness and trend of VAT in terms of revenue productivity? What is the contribution of VAT in Total Tax Revenue & GDP, What is the trend of VAT registration & returns? Whether the VAT payers are satisfied with the Current VAT system?

What are the initiatives taken by the government for the effectiveness of VAT System with regard to its plans and policies? What are the implementation strategies

formulated and their effectiveness? These are the current burning issues relating to the effectiveness of VAT system in Nepal.

The study is directed towards answering the following questions:

1. What is the contribution of VAT in total government revenue?
2. What is the contribution of VAT in Total Tax Revenue & GDP?
3. What is the trend of revenue collection, VAT registration & filing of returns?
4. What is the composition of Vat collection form internal and external sources?
5. What are the factors for effective implementation of VAT?

These are the current burning issues relating to the effectiveness of VAT system in Nepal.

### **1.5 Objectives of the Study**

The main objective of the study is to analyze the effectiveness of VAT in Nepal. Besides this main objective, the study has the following specific objectives:

1. To determine the trend of VAT collection, VAT registration & filing of returns.
2. To analyze the contribution of VAT in GDP, Total Revenue of government, Total Tax Revenue & Total Indirect Tax Revenue.
3. To examine the VAT collection from internal sources (mainly manufacturing, trade and commerce, contract and consultancy, tourism and other) and external sources(mainly imports)
4. To analyze the implementation of VAT system in Nepal.
5. To provide suggestions based on major findings of the study.

### **1.6 Significance of the Study**

This study will be important for the following groups and individuals.

1. The research is very useful for future researchers.
2. The research is very useful for university students who are new generation.
3. The research is very useful for tax authorities and policy makers
4. The research is very useful for Government of Nepal.
5. The research is very useful for NGO's and INGO's.
6. The research is very useful for all other interested individuals and parties.
7. The research is very useful for Researcher.

8. It is equally important for general public paying the VAT to government.

## **1.7 Limitations of the Study**

1. Time and budget limitations.
2. The study is limited only in effectiveness of VAT in Nepal in relation to revenue productivity.
3. The study is only partial analysis of the whole tax system.
4. Research is based on the data of Inland Revenue Department, website and some of its publications only. The accuracy of the report is the function of the accuracy of the data provided by IRD. No authentic proofs have been checked.
5. Revenue collection and trend of it is analyzed based on the data of last five years beginning from F/Y 2005/2006-2010/2011
6. The reality of the study fully depends on secondary sources of data and questionnaires filled by respondents.
7. This report covers the effectiveness of VAT in Nepal only.

## **1.8 Organization of the Study**

### **Chapter 1 Introduction**

The first chapter deals with the Introduction. This includes Background, Statement of problem, objective of the study, hypothesis of the study, limitation of the study and organization of the study.

### **Chapter 2 Review of Literature**

The second chapter deals with the review of available literature. It includes review of books, reports, journals previous thesis etc. This chapter also focuses on conceptual framework and provision regarding VAT in Nepal.

### **Chapter 3 Research Methodology**

The third chapter explains the research methodology used in the study, which includes research design, source of data, population and samples, methods of data analysis etc.

### **Chapter 4 Data collection and Presentation**

The fourth, which is the important chapter of the study, will include presentation and analysis of data. The fourth chapter fulfills the objectives of the study by presenting the data and analyzing them with the help of various financial and statistical tools & techniques. Same has tried to make the best possible critical analysis of VAT management in Nepal.

## **Chapter 5 Summary, Conclusion and Recommendation**

The fifth chapter summarizes the main conclusion of the study. Moreover it draws the summary of the study and forwards the recommendation for the improvement of effectiveness of VAT implementation and leakages and remedial measures to overcome the same.

## **CHAPTER – II**

### **REVIEW OF LITERATURE**

Review of literature comprises a vital part in the thesis writing. The study has been done effectively by studying the various old thesis, dissertation, newspaper, magazine and suggestions from the experts of the related field. For studying the “effectiveness of VAT system in Nepal” various available books in VAT, VAT administration, VAT act and rules etc gave some idea about the study. So, in the context of writing this section of Report many books, articles, old thesis paper, dissertation and suggestions of experts were reviewed to make this report concrete.

#### **2.1 Conceptual Framework/Theoretical Review**

##### **2.1.1 Introduction of Value Added Tax (VAT)**

VAT is an indirect tax levied on consumption. This tax is levied on valued added at each stage of production and distribution of goods and services. In both practice and theory, this tax is a regressive one. The final burden of this tax goes on to the consumer. VAT is one of the core members of the indirect tax. The main objective of this tax is related to revenue mobilization. To obtain the exact definition of VAT, the following section gives its practical and precise meaning.

##### **2.1.2 Meaning of Value Added Tax (VAT)**

VAT has been defined by various experts and institutions according to their own likings having same meaning in whatever way it has been demonstrated. It's only the use of words that is different with core values and meaning of the VAT remaining almost similar in every attempt of definition. Here are some of the interpretations presented for the study.

VAT is a sales tax in advanced form. It is imposed on different stages. It is the tax imposed on added value of goods and services. Value added tax is one of the forms of indirect taxes too. Being a broad based tax, it is imposed on producer, whole seller, retailer and consumers also. It is related to both the goods and services. It is levied on industry as well as commerce. Accordingly, it measures net value generated in a country, i.e. GDP. Value added tax is also known as goods and services tax or added value tax. It is tax system that aims to minimize tax evasion and increase

resource mobilization. It is imposed on value added amount in each stage from production to consumption of goods and services. Therefore, is equivalent to multi-stage sales tax. In contrast to sales tax, VAT is imposed on added value of production and distribution. The value is added in the form of profit, rent, wages, salary etc (Kandel, 2003). Hence value added can be expressed as :

$$\text{Value Added} = \text{wages} + \text{rent} + \text{interest} + \text{profit}$$

Or

$$\text{Value Added} = \text{Sales Value} - \text{Cost of inputs}$$

The firm adds value to the inputs by processing or handling them with the help of its own factors of production such as land, labor, capital, machine, organization etc. This increase in the value of outputs over inputs is the value added by a firm. That's to say, value added by a firm is the sum of amounts paid out by the firm to its factors of production. Therefore Value added by a firm is equivalent to its payment of wages, salaries, rent, interest and profit. This value added is the base of Value Added Tax (VAT).

During the successive stages of production and distribution, intermediaries such as producer, wholesaler, retailer etc add value to their purchases by processing or handling with different factors of production and sell their outputs to next intermediary or final consumer.

Let us consider an example of Sugarcanes. Sugarcanes are grown on farms and sold to a sugar mill. The sugar mill transforms sugarcanes into sugar and sells it to a wholesaler and the wholesaler sells it to a retailer. The retailer sells the sugar finally to a consumer. What consumer pays for the sugar to retailer is the sum of value added by the farmer, sugar mill, wholesaler and retailer. The value added tax is imposed on each value added in each stage. The sum of which is equal to the tax on final sales value of the sugar.

In the above example, the farmer's value added is the labor cost s/he incurred while growing the sugarcane on farm assuming that no other production inputs were used. The entire price received by the farmer is farmer's value added. The value added by sugar mill includes, in addition to the price paid for sugarcanes, expenses incurred while producing sugar such as wages & salaries, chemicals, rents, interest, profits etc. Similarly, wholesaler and retailer also add wages, profits etc to their purchases while selling the sugar. The value added is, therefore, what business enterprises add to their purchases.

Encyclopedia of taxation and tax policy says, “Value added tax is a broad tax on business designed to measure net value generated in a country.”

Indian Tax Institute defines VAT as “a tax imposed on the seller of goods and services based on value added by their respective units.”

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](http://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 ([en.wikipedia.org/wiki/ Value added tax](http://en.wikipedia.org/wiki/Value_added_tax)). 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).

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 has 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 21<sup>st</sup> 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 and 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 increase consumer tax and price levels, which increases the rate of evasion and can be detrimental to economic growth. In contrast, 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.

The following are the characteristics of full-fledged VAT system:

1. It is an indirect tax introduced as an improvement over sales tax
2. It is levied on added value at each stage of production and distribution
3. It is broad based tax
4. It is based on self assessment system
5. It avoids cascading and pyramiding.
6. It tends avoid tax evasion to greater extent.
7. It is an equitable tax system. (Kandel, 2003: P198)

### **2.1.3 Objectives of VAT**

As the VAT is an indirect tax, its major objective is to provide a well developed and scientific system of charging indirect tax. Other objectives of the VAT have been highlighted below:

1. Modernization of tax system in place of old.
2. Making the tax system more transparent, effective and efficient.
3. Extending the tax net.
4. Avoiding the chance of cascading and pyramiding of indirect tax.
5. Improve revenue mobilization capacity of the country.
6. Impose tax on each transaction either within or outside Nepal.

#### **2.1.4 Types of Value Added Tax (VAT)**

Basically, there are three types or variants of VAT, namely, the product-type (P-VAT), the income-type (I-VAT), and the consumption-type (C-VAT). The above types of VAT can be best understood by comparison of income and expenditure aggregates to the national income. Expenditures on the gross domestic product (GDP) consists of final private consumption expenditure (c), gross investment expenditure (I), final government non-wages expenditure on goods and services (Gc), government expenditure on wages and salaries (Gw), and the trade balance (the values of exported (x) less imported (m) goods and non factor service) (Howell, 1995).

$$GDP = C + I + GC + GW + (x-m)$$

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)

$$GDI = V + D$$

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. Under this type, capital goods purchased by a firm from other firms are not deductible from tax base in the year of purchase. 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).

$$\text{Base of P-VAT} = GDP - GW = C + I + GC + (x - m)$$

or,

$$\text{Product Type VAT} = \text{Gross Receipts} - \text{Cost of Intermediate Goods}$$

## **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. The income type VAT does not exclude capital goods purchased from other firms from the tax base in the year of purchase. An I-VAT excludes depreciation from its tax base. It therefore taxes the net, rather than the gross, investment expenditure (Howell, 1995).

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

Or,

$$\text{Income Type VAT} = \text{Gross Receipt} - \text{Cost of Intermediate Goods} - \text{Depreciation}$$

## **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. Under consumption type VAT all capital goods purchased from other firms are excluded from the tax base in the year of purchase, while depreciation is not deducted from the tax base in subsequent years. The resultant base would be the base of a C-VAT:

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

Or,

$$\text{Consumption Type VAT} = \text{Gross Domestic Product} - \text{Cost of Intermediate Goods} - \text{Cost of Capital goods}$$

Thus from above studies it can be understood that the types 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:

1. This variant doesn't affect decisions regarding investment and growth since it relieves investment from any tax burden
2. 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.

3. Furthermore, the consumption variant is more attractive than the income variant from the consideration of foreign trade, because the consumption variant is 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 variant. 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).

### **2.1.5 Methods of Computing Value Added Tax**

Basically, there are three methods by which VAT liability can be computed. They are:

1. Tax credit method
2. Subtraction method and
3. Addition method

Of the above methods, two methods namely Subtraction method and Tax credit method are frequently used while Addition Method is rarely used.

#### **1. Tax Credit Method**

Popularly known as Invoice Method, tax is imposed on the total value of sales and tax payers are allowed to deduct the tax already paid by their immediate supplier from their total tax liability and pass on to them. This method levies tax on the total value of sales (excluding VAT) and it requires that the amount of VAT charged be explicitly stated on the invoice associated with any taxable transaction. The tax liability is basically derived by deducting tax paid by the seller in purchasing from the total amount of tax collected from sales. 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:

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

This method is by far superior in relation to other two methods and also is mostly used by many countries in the world. The main reasons behind the same are as follows:

1. Easiness in finding out the amount of VAT collected, amount of VAT deposited, and the amount of VAT to be refunded.
2. Calculates VAT liability by subtracting the cost of materials from sales proceed being used for any time, i.e. one month, two months, six months etc., which is less than one financial period.
3. Easiness in tracing out the understatement of value at the earlier stage and correcting on subsequent sales.
4. 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.
5. Similarly, this method is effective under the destination principle where exports are zero-rated and the tax credit chain is not broken.
6. It also provides the facility of cross checking.
7. 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 in the world. Nepal has adopted the tax credit method. The following example may help understand the credit method in a better way. Let's suppose an importer imported a refrigerator 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 businessman 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 information.

**Table 2.1**  
**Calculation of VAT under the Credit Method**

(Rs.)

<b>Stages</b>	<b>CPI- VAT</b>	<b>Added Value</b>	<b>SV- VAT</b>	<b>VAT @ 13%</b>	<b>SV + VAT</b>	<b>Net VAT</b>
Imported refrigerator	20000	-	-	2600	-	2600
Importer to Manufacturer	20000	6000	26000	3380	29380	780
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

## 2. Subtraction Method

Under this method, The Value added is derived by subtracting the cost of purchases from sales proceeds .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.

$$T = t (\text{Sales Value} - \text{Cost of Purchased Inputs})$$

$$T = t (\text{SV} - \text{CPI})$$

**Table 2.2**  
**Calculation of VAT under Subtraction Method**

(In Rs.)

<b>Phases of production and Distribution</b>	<b>Net Purchase Price (CPI)</b>	<b>Net Sales (SV)</b>	<b>Value Added (SV-CPI)</b>	<b>VAT @13%</b>
Raw materials Producer	-	3000	3000	390
Producer	3000	4500	1500	195
Wholesaler	4500	5800	1300	169
Retailer	5800	6500	700	91
<b>Total</b>	<b>13300</b>	<b>19800</b>	<b>6500</b>	<b>845</b>

### 3. Addition Method

Under this method, the tax base is obtained by adding the incomes produced by the firm. These incomes may include wages, interest, rent, royalties and profits. This method is appropriate for the income type of VAT.

**Table 2.3**  
**Calculation of VAT under Addition Method**

Particulars	Raw Material Producer	Manufacturer	Whole seller	Retailer	Cumulative
Purchase of Inputs (a)	-	100	500	800	1400
Value Added:					
Wages	60	275	200	100	635
Rent	10	25	40	50	125
Interest	10	50	25	25	110
Profit	20	50	35	25	130
Total Value added (b)	100	400	300	200	1000
VAT @13%	13	52	39	26	130
Sales Value (a+b)	100	500	800	1000	2400

#### 2.1.6 Principles Governing Value Added Tax

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

##### 1. Origin Principle

Under this principle, goods and services produced in a country are taxed at the place where they are produced or rendered but not at the place where they are consumed. 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.

## **2. 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 at the place where they are consumed instead of the place where they are produced. This means all imports are taxed while all kinds of goods and services exported are tax exempted. 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.

### **2.1.7 Reasons for the Increasing Popularity of VAT**

VAT is definitely a new and modern tax as compared to other traditional tax systems. Actually, VAT is thought of being the most important tax reform in the 21<sup>st</sup> 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 systems, 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 contributed to its growing popularity.

#### **1. Making tax System more Transparent**

Nepalese economy is not based on systematic accounting system. Some part of the economy is underground, whereas the part which is over ground is also not under real accounting. The business persons use to keep double accounting-one for tax purpose and another for its own purpose. Still majorities of the business firms or entities do not keep the books of records for their financial transactions. In economy

where most part of economic activities is not within transparent accounting system, tax evasion is pervasive. Nepalese economy is also not an exception in this respect. Since, value added tax is an account-based tax system, the objective of using this is to make the tax system more transparent.

## **2. Removing Cascading Effect**

Cascading in tax system means tax on tax. Within sales tax system, tax paid at one stage becomes the cost for another stage. So, there is tax on tax. This case happens within multistage sales tax system. However, within value added tax system, the tax at one stage does not become the part of the cost for another stage. The value added item and tax item are kept separate within this tax system. Due to this separation of added value and the tax portion, VAT system is free of cascading effect.

## **3. Increasing the Tax Base**

Nepalese economy is small. The tax evasion in Nepalese tax system is widespread. It is estimated that around 50 percent of the Nepalese tax is evaded or avoided. This situation has made the Nepalese tax net very small. Only a small portion of the Nepalese qualifying taxpayers is within the tax net. Tax GDP ratio in Nepal is only 12 percent in comparison to up to 50 percent in some developed countries in the world. VAT system covers most of intermediaries /channels in business activity and brings greater participation of tax payers. 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 fiscal instrument for the mobilization of recourses. There is tremendous scope for increasing the revenue by means of VAT system. 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. That is why one of the objectives of value added tax system in Nepal is to increase the tax base.

#### **4. Maintaining Neutrality**

The guiding principle of current tax system is neutrality. Neutrality concept in relation to taxation says that tax system should not discriminate one economic activity against other. It should not disturb production, distribution and consumption pattern of the economy. VAT is a tax system which is neutral in this respect. 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. 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 with respect to the 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 with respect to consumer's choice.

#### **5. Encouraging the Export**

Another reason of introducing VAT is to encourage the export. Within VAT, under destination principle, the goods and services are taxed at consumption point. The goods and services are not taxed based on production. Exports are commonly relieved from taxation in order to maintain the competitive power of domestic manufacturers in the international market. The goods and services that are exported are taxed under zero tax rates. Zero rating is different from exemption. In case of zero rating, the taxpayer can get refund of tax, earlier paid, but under exemption, such refund is not possible. That means, under zero rating, the exporter should not pay tax on added value but he can get refund of tax that he paid in purchasing the raw materials and for interrelated goods. In such a way, VAT can promote the export.

#### **6. To Increase the Revenue Mobilization**

As already said, the tax revenue mobilization in Nepal is very small. It is insufficient even to meet the ordinary expenses. There is urgent need of increasing the revenue in the country to meet regular expenditure and afford for development

activities. One of the objectives of value added tax system, therefore, is revenue mobilization (Kandel, 2003: 201).

## **7. Taxing Services**

For increasing tax revenue or broadening the base of tax, there is need of taxing the service sector as well in Nepal. Service sector is the flourishing sector of the Nepalese economy. It contributes a significant part of the GDP in Nepal. Tourism, Transportation, telecommunication, hotel business, health services etc. are the examples of service sectors.

## **8. Minimizing Tax Evasion**

Tax evasion is a common phenomenon in Nepal. As already stated different surveys have shown that around 50 percent of the present tax revenue is leaked. VAT is transparent tax system. The effective use of VAT makes the whole tax system transparent since VAT is account based tax system. If VAT is implemented effectively, income tax, property tax, and customs become transparent. Transparency in tax system certainly reduces tax evasion. Moreover, VAT has a catch up characteristics that helps in capturing the tax evaded in earlier stage of sales. This self policing nature of value added tax system minimizes tax evasion.

## **9. International Pressure**

One of the reasons of introducing VAT in Nepal was the pressure from international financial agencies like International Monetary Fund, World Bank, Asian Development Bank; European Union etc. All these agencies pressurized to introduce VAT in Nepal.

## **10. Imitation**

After the introduction of VAT system in France in 1954, it became popular all over the world. Right now, more than 150 countries in the world are using VAT system. Because of this popularity of VAT in other countries of the world, Nepalese policy makers also were imperative to use this tax system in Nepal. Therefore, now, we do have value added tax system in Nepal.

### **2.1.8 Value Added Tax as a Substitute of Sales Tax**

A tax based on the sale of goods and services imposed for generating revenue is sales tax. There are three types of sales taxes, namely, multiple stage sales tax; single stage sales tax and value added tax. The tax imposed on each stage of sales is multi-stage sales tax; whereas the tax imposed on only one stage is single stage sales tax. In other words, if tax is imposed on manufacturer, wholesaler and retailer, it is multistage sales tax. In contrast, where the tax is imposed either on manufacturer, wholesaler or retailer, it is single stage sales tax. The nature of sales tax is that the tax in case of sales tax is levied on total amount of cost of sales and the tax amount of earlier stage becomes the cost of the goods or services for next stage. Value added tax, in opposite, is levied not on the total amount of cost of sale but on the amount of value added in each stage.

Sales tax in the world of taxation was introduced during 1<sup>st</sup> world war. Before that war, sales tax was only in Philippines and Mexico. However, due to severe need of revenue, many countries used sales tax system during First World War. Up to world war second, this tax had been indispensable part of most of the tax systems in the world. However, after 1955, this tax was gradually replaced by the value added tax. Right now, there are scant numbers of countries that are under sales tax to collect the revenue. Value added tax has replaced the sales tax in most of the countries in the world.

In Nepal, sales tax was introduced in 2022 B.S. at first; sales tax in Nepal was levied on retail stage. Nevertheless, in 2025 B.S., wholesalers were the point of taxation. In 2031 B.S., the system was again changed and the sales tax was imposed on manufacturing stage. Since Mangsir 1, 2054 B.S., sales tax was replaced by value added tax.

To conclude, the expression of Alan A. Tait can be depicted to show why VAT system was used in place of sales tax in Nepal.

“Countries introduce a VAT because they are dissatisfied with their existing tax structure. This dissatisfaction falls broadly into one, or possible all, of four categories, (1) the existing sales tax are unsatisfactory, (2) a customs union requires discriminatory border taxes to be abolished, (3) a reduction in other taxation is sought, (4) the evolution of tax system has not kept pace with the development of the economy.”

According to Tait, VAT system is adopted to avoid the defects of sales tax as regards cascading, to avoid custom which discriminates internally produced goods and imported goods, to reduce the rate of other taxation like income tax and customs and to make the tax system neutral in the economy (Kandel, 2003: 203).

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). 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 stimulates the producers to economize 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). 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 is 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 supersede both MST and WST in all the aspects described above.

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 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). If the retailers do evasion, there will be not much loss in revenue because a large part of the tax has been already collected prior to the retail level.

### **2.1.9 Origin and Development of Value Added Tax (VAT)**

The concept of VAT was discussed by scholars as early as 1918 and was introduced in 1919 by Dr. Wilhem Von Sieman in Germany to replace the "Usatzsterller" (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, due to fear of its administrative complication, reduced the rate of usatzsteuer instead of the implementing the same. In 1921, the America implemented 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 1950s the development of VAT remained limited only in the theory.

A mission led by Professor Carl S. Shoup proposed a value-added tax for Japan in 1949 and developed its broad structure.

Mc Maurice Laure, who is known as the father of the modern VAT, in his capacity as an official of French Ministry of Finance, developed the French levy based on the principles of modern VAT. As such France was the first implementer of VAT in 1954 covering only in the industrial sector. But these countries limited the VAT only on import and manufacturing stage.

In late 1960s, 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 but avoided in the same year and again used in 1999. The popularity of VAT 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 states 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 2.4**  
**Implementation of VAT in Different Countries**

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, Cameron, 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)*

## **2.2 VAT in Nepal**

### **2.2.1 History and Development of VAT in Nepal**

The idea of introducing VAT was revealed by Nepalese government 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 VAT will be introduced in the country. At that time period two-tier sales tax system was in function. Under this system dealers and distributors 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 distributors or agents of the foreign firm or companies and their wholesalers were also required to register for the purpose of collection of sales tax. Making liberalization as one of its motto, the government of Nepal asked donors to study about various prospects of VAT system in Nepal. Finally a VAT task force was formed under the Sales Tax and Excise Department in 1993 to make necessary preparations for an early introduction of VAT. 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 in Nepal. The task force was fully devoted to accomplishing preparatory works. 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 forming of task force, Nepali congress was in absolute majority in the parliament. A mid-term poll changed the political scenario. The United Marxist-Leninist (UML) party formed 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 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-instate the dissolved parliament, a coalition government led by Nepali congress was formed and it showed as earlier, full commitment to introduce VAT in its F/Y 1996/97 budget. The USAID resumed its support but its allocated fund for the study of VAT had already been

transferred to other projects. Again, scarcity of fund was realized by the government and search of the donor who can provide the necessary funds and technical assistance for the implementation of VAT begun. 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 1996AD (2052 B.S) 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. Furthermore, 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 form 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 educating 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 opposed the government policy of adopting VAT. Nepal Chamber of Commerce held a nationwide discussion program among traders, businessmen, industrialists and their representative associations in March 1997 to collect the attitude towards the introduction of VAT in Nepal. Most of the business community showed their dislikes to the VAT which was scheduled to be operated from two month later. Business persons protested the decision to adopting VAT with the slogan "NO VAT" resulting 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 wee 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 bodies tried to convince the business community in favor of VAT. It was really a very hard work to implement VAT without the full cooperation of business community.

The VAT project, Ministry of Finance as well as Department of VAT devoted the extended period of time for making friendly relations by providing more training, information campaign meetings, talk program and interaction program among different groups of people. In the mean time, the business group was also divided into two parts. Industrialists were in favor of VAT whereas the traders were 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 month 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 the system. Due to various reasons VAT could not function effectively as expected. The business community demanded the continuation of all exemptions and incentives granted under the sales tax system. Businessmen were also very angry with the function of octroi, a local tax. FNCCI(Federation of Nepalese Chamber of Commerce and Industry), an umbrella organization 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 on 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. Since most of the agreed points were not implemented 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 with consideration to the volatile situation

of the political party. The government called businessmen to reach an agreement but the businessmen rejected the proposal and did not sign on 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 from 18 percent.
- The rate 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 payer 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 rather than attracting them 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 agreements were in connection with the further exemptions and concessions in various fields of VAT as well as to other 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 payers of the country from December 16, 1999 after the establishment of Inland Revenue Department (IRD).

For the simplification of management of data, a database computer system has been developed since the inception of VAT in Nepal. With a view to provide all 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 cover the whole kingdom of Nepal, all those offices merged together and established 21 offices on the basis of 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” lass, five into “C” class, five into “D” class and Five into “E” class. Officials and staffs were reorganized according to the 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. Government of Nepal has increased the rate of VAT to 13% effective from Magh 1, 2061.

### **2.2.2 Basic Features of Nepalese VAT system**

The main features of Nepalese VAT system are as follows:

1. VAT is finally borne by the consumer
2. The computation of VAT through tax credit method.
3. The principle of destination.
4. The level of threshold is Rupees 2 million.
5. The facility of tax refund
6. The application of VAT to all business turnovers through the retail stages.
7. The rate of VAT is single and positive @ 13%
8. The provision of exemption and zero rate for the goods and services
9. The allowance of tax credit for taxable supplies including the zero rate supply
10. Small entrepreneurs are exempted to register in VAT office.
11. Self assessment system.
12. Provision for fine and penalty
13. Provision for appeal and review.

### **2.2.3 Coverage of VAT in Nepal**

As provided in the VAT Act section 5, VAT shall be imposed on the following transactions:

1. Goods or services supplied into Nepal.
2. Goods or services imported into Nepal.
3. Goods or services exported from Nepal.

In other words, any transaction relating to goods or services executed in between person in Nepal or a person outside Nepal and a person inside Nepal shall be treated as a taxable transaction and tax shall be levied on the taxable value of every such transaction. However, there are also certain transactions which are exempt from tax and are provided in schedule 1 of the VAT Act. Again any tax levied on such goods or services at the time of purchase shall not be allowed set-off pursuant to section 17 and shall not be refunded pursuant to section 24. In case tax has already been paid on the exempted goods or services, because they were not listed at that time and the goods are in hand for sales, they shall not be available for set off against the tax collected from taxable transactions or the refund of such taxes shall not be allowed either.

#### **2.2.4 Transfer of Business**

In case a registered person transfers the whole of the business to any other registered person, the transferor is not required to charge tax on the transfer. This is the facility given to the transferor as against the general concept of the VAT. But the total VAT liability of the transferor shall be shifted to the transferee. For VAT purpose, the transferee steps into the shoes of the transferor. In this case, VAT credit shall also be shifted to the transferee. However, the registered person, on sale or transfer of the business, has to inform the related Inland Revenue Office in the prescribed format and transferee shall also be required all the relevant documents up to the period required.

#### **2.2.5 Rates of VAT**

All the taxable transactions shall be taxed at the rate of 13% while the goods and services included in schedule 2 of the VAT Act shall be charged with zero rates.

#### **2.2.6 No VAT and Zero VAT Concepts**

Those goods and services which are necessary for the people and those that are generally provided by the government are included in the 'no VAT schedule'. Exemptions primarily are proposed from three types of reasoning, they are for basic necessities or services or on social welfare grounds and reducing complexities in administration. In such a case input tax credit is not deductible or cannot be refunded. Schedule 2 of the VAT Act has prescribed certain circumstances such as export etc under which VAT shall be charged at zero rate. If the goods or services are zero-rated the input tax or tax paid on purchases is creditable or refundable. In other words, the taxpayer not only does not pay tax on the value of his exports but also will be fully compensated for the tax paid on input.

#### **2.2.7 Negative Value Added**

Sometimes the prevailing situation may compel a businessman to dispose off the goods for a price lower than its cost in order to avoid further loss. This may be due to damage of the goods, expiry, going out of fashion, deterioration of the quality of the goods, market price going down in the supplier's market, availability of cheaper alternative goods, etc. That is, value deduction is the result of abnormal circumstances.

Section 12(7) of the Act says that the taxable value of the goods or services supplied for a partial consideration shall be equal to the market value. Thus, the negative value addition due to a partial consideration received shall not be allowed in charging VAT. That is, VAT shall be charged on the full value

Section 16 Kha allows negative value addition under certain circumstances; like theft, damage by fire, accident, breakage, use period expiry etc. But it is provided that the negative value addition is allowed in case all the procedures, as prescribed by the rules, are adopted.

Rule 39 Ka has set a procedure for claiming the negative value addition.

1. For set-off the VAT paid on some goods or for selling the goods below cost, the person has to apply to the related Inland Revenue Office with available proofs within 15 days of the goods being damaged, lost or the period of utilization being expired.
2. The IRO shall forward the application to a committee appointed by the Inland Revenue Department for investigation into the claim. On investigation, if the committee finds that the claim is reasonable, it has to forward the application to IRD with its recommendation, the amount of tax to be allowed for set-off and the reason for the loss.
3. On the favorable recommendation from the committee, IRD may take a decision to allow the tax set-off or to sell the goods below cost.

### **2.2.8 Collection of VAT**

In case of import, the respective custom offices collect VAT on the taxable value calculated as per the Act. For this, the direct expenses incurred up to the custom office are considered for calculation of the value of the goods. In other cases, each registered person has to collect VAT on selling price. Unregistered persons are not allowed to collect tax (Section 8).

### **2.2.9 VAT Credits or VAT set-off (Full, Partial and Nil)**

Full tax set-off is allowed for tax paid or payable on raw materials, and auxiliary raw materials, finished goods, capital goods used for the taxable business, administrative or other expenses incurred for the taxable business. Section 17 and Rule 39, 40 and 41 allows VAT paid on purchases and expenses for deduction under the following conditions only:

1. Set-off is available to registered firm only for the goods or services in respect of which a claim for deduction of tax has been made and which are directly related with the taxable business.
2. In case of domestic purchases, a tax invoice as per annexure 5 or the tax invoice as per annexure 5Kha should be received.
3. In case of imports, a custom invoice or pragyapan patra evidencing the payment of tax should be received.
4. The custom invoice or the pragyapan patra should be drawn in the name of the taxpayer and should include the registration number of the taxpayer. But in case capital goods is imported or purchased in the name of the bank or finance company on loan taken against the goods, the taxpayer can claim VAT as the invoice is raised on its own name.
5. Tax set-off should be claimed within one year from the date of the invoice or the pragyapan patra. Once claimed, tax cannot be claimed again.
6. A taxpayer is allowed to deduct tax paid on purchases of wood from national forests, or goods purchased from Nepal Government (Section 17(5b)).
7. Rule 43(1) further provides that a person can apply to a tax officer in form No. 16 for the set-off of tax paid on stock in trade outstanding on the day of its registration.

Section 17(2) provides that no set-off or a partial set-off shall be granted in case of certain goods that can be used for personal as well as for business purposes. Also, Rule 41 provides that under following conditions tax set-off is not allowed at all except that in case a registered person carries on a business of the following goods as the principal business.

1. Beverages
2. Alcohol or alcoholic beverages such as liquor and beers
3. Light petroleum for vehicles and
4. Entertainment expenses.

Also same rule provides partial set-off of VAT paid on vehicles such as motor vehicle with three or more wheels used on road for the carriage of passengers used as fixed assets. Alternatively, tax paid or payable on vehicles having less than three wheels or vehicles used for carriage of goods is allowed a full set-off.

### **2.2.10 Proportionate VAT Set-Off**

In case a registered person carries on transaction of both taxable goods or services and tax-exempt goods or services, such a taxpayer may deduct only the tax paid on purchases or imports directly related to the taxable goods or services.

Under the conditions, the taxpayer has to classify the purchases and expenses into two categories: purchases and expenses directly related to either taxable or non-taxable transactions or purchases and expenses which are common for taxable and non-taxable transactions. In case the purchases or the expenses are directly related to the taxable transactions, the VAT paid or payable on these is fully available for set-off. Alternatively, in case the purchases or the expenses are directly related to the non-taxable transactions the VAT paid or payable on these is not allowed for set-off.

VAT paid or payable on purchases of paper is not allowed for set-off in case the paper is used for publishing books. But in case the paper is used for producing diaries, note books etc the VAT paid or payable shall be allowed fully for set-off.

In case the registered person carrying out the transactions related to both taxable and tax- exempted goods or services fails to establish the direct relationship of the purchased or imported goods or expenses with taxable goods or services, such a taxpayer may deduct the amount of tax paid on his purchases or imports or the expenses by calculating the proportion of taxable transaction value out of his total sales value.

If the same could not be implemented then tax officer may seek direction from the Department to calculate it through another alternative method.

### **2.2.11 Structure of VAT in Nepal**

The ministry of finance of Nepal Government is the supreme authority for planning and performing VAT related matters. The IRD is responsible for the complete administration of VAT, income tax and excise duty. The Director General is the chief executive of the Inland Revenue Department.

Section 3 of the Act specifies that Nepal Government for the purpose of this Act may appoint tax officers in the required number and if deemed necessary, may designate any officer of Nepal Government to act as a tax officer. Also section 4 specifies that the jurisdiction of a tax officer shall be as specified by Nepal Government.

### **2.2.12 VAT Registration (Section 9 and 10)**

Section 10 specifies that every person wishing to engage in taxable transaction shall apply to tax office in the prescribed form for registration before beginning to engage in such a transaction. Also same section provides that a person who carries out the transaction of goods or services mentioned in schedule 1 of the Act shall not be required to register. Also the person who has conducted their business in a metropolis, sub-metropolis or a municipality and is dealing in hardware, sanitary, furniture and fixtures, furnishing, automobiles, electronics and marbles is required to register their business for VAT purpose.

Every person engaged in taxable transaction shall, in case its transaction exceeds the threshold, be required to get its business registered with VAT. The threshold limit is set at Rs. 2 million. In case the person's transaction, as per estimation, may exceed the threshold within three months, the person has to apply for the registration. Also in case the person's transaction exceeds the threshold, within 30 days, it has to apply for the registration.

Rule 7 further provides the following conditions for compulsory registration:

1. At the time of inspection by a tax officer, in case the stock of taxable goods available with the person exceeds the limit, based on the nature of the goods, prescribed by the Department;
2. In case a person's sale of any month exceeds Rs. 200,000.00.
3. In case a person's telephone expenses and house rent exceeds Rs. 1 lakh during a year; or
4. In case the business place exceeds the area specified by the Department for different roads or different market areas.

### **2.2.13 Voluntary Registration**

Section 9 provides that small vendors having two millions or less of taxable transaction during previous twelve months shall not be required to get registered. However, if a person wishes to get registered, the person may apply for voluntary registration.

### **2.2.14 No Registration**

A person not engaged in taxable transaction shall not be required to get registered for VAT.

### **2.2.15 Cancellation of Registration**

Section 11 of the Act provides that a person can apply for cancellation of registration in any one of the following conditions:

1. In case of an incorporated body, if the incorporated body is closed down, sold or transferred or if it otherwise ceases to exist;
2. In case of an individual, if the owner dies;
3. In case of partnership firm, if it is dissolved or any of the partner expires;
4. If the registered person ceases to be engaged in taxable transactions;
5. If a person is registered in error;
6. If the taxpayer acquires the registration voluntarily, he shall not be allowed for cancellation of registration before the expiry of one year from the day of registration. After the expiry of the period, it may apply for cancellation of the registration.

### **2.2.16 VAT Invoices**

Section 14 and rule 17 has prescribed the following provision with regard to invoice:

1. Every registered person is required to issue an invoice to the recipient, in supplying any goods and services. While issuing the invoice, available information, regarding kind, size, model, brand etc of the goods, shall be mentioned on the invoice.
2. The format of the tax invoice is prescribed in annexure 5 of the Rules.
3. A retailer, with prior permission from the tax office, can issue a brief tax invoice as provided in annexure 6 of the Rules. A brief tax invoice shall not be issued for more than Rs. 5,000.00.
4. Section 14(6) provides that a person dealing in certain specified goods, has to inform publicly the retail selling price of the goods. Nepal Government, by publishing in the official gazette, may prescribe the goods and period for which the notification shall be applicable for the purpose. Section 14(7) further says that, the person coming under the purview (scope) of the above sub-section has to issue invoice on retail price in case it is selling the goods to a non-registered person. The format of invoice is prescribed in rules as annexure 5Kha. The discount, if any payable, shall be allowed after charging VAT on the retail selling price.

5. According to section 14(1), a person who is not registered but has an annual turnover of more than Rs. One million has to issue an invoice at least specifying the following information:
6. Name of the firm, address of the firm, PAN of the firm and consecutive serial number of the invoice.
7. In case of the transportation of goods for the destination as prescribe by IRD for more than Rs.10, 000.00, the tax invoice should flow along with the goods.
8. IRD is empowered to permit a person to issue tax invoice generated by a cash machine or computer. It is also provided that DG can set the conditions for granting such permission. DG, through a public circulation, has set the following conditions:
  - 8.1 Serial number of invoices should be re-allotted for each accounting year. The software should generate two copies of invoices: one for the customer and another for the person's record. The person has to furnish the second copy of invoice as and when demanded by a tax officer.
  - 8.2 The software should be programmed in such a way that an entry when passed in the program cannot be deleted or amended. In case a deletion or amendment is necessary that should be made through another entry or through reverse entry.
  - 8.3 The person should get a hard copy of the available records in the software and should keep these safely for the period of six years.
  - 8.4 The software should not allow reprinting the same serial number once allotted to an invoice. But in case it is needed, the software should print a duplicate on the invoice.
  - 8.5 The invoice generated by the program should be in the format as prescribed by the Act.
  - 8.6 Infringement of the provisions of this circular shall be punishable.
  - 8.7 A person, who is using a cash machine or computer for issuing an invoice, has to get the till roll in hard copy and should keep it safely for four years of the submission of the tax return.
  - 8.8 No person is allowed to issue invoice using a computer, unless it has obtained permission from the related IRO. In case a person has obtained permission before this circular, he has to follow the above-mentioned conditions.

8.9 Section 15 of the Act restricts any person, who is not registered for VAT, to issue an invoice or other document showing collection of tax. But as per sub section 3 Nepal Government and a local authority are authorized to collect tax on any taxable goods or services provided by them.

#### **2.2.17 VAT Accounts (Section 16)**

A taxpayer is required to maintain accounts mentioning the following data:

1. Date of transaction;
2. Value of each transaction;
3. The registration of the buyer, in case it is a registered person; and
4. Other matters as prescribed.

A registered person shall use, for the purpose of keeping accounts, the purchase book and sales book certified by the concerned tax officer and preserve the accounts of transactions for a period of up to six years.

According to Rule 23, a taxpayer has to maintain the following records:

1. Tax account as per annexure 7
2. Purchase book as per annexure 8
3. Sales book as per annexure 9
4. Records regarding transactions, cash etc.
5. Copies of tax invoices and brief tax invoices
6. Tax invoices received for purchases and expenses
7. Documents regarding import and export
8. Records of debit or credit notes
9. Register for free or sample goods.

Section 16(1ka) authorizes a tax officer to have an access, as and when needed, to the computer database of the taxpayer. A registered person may, with the approval of IRD, maintain the records required to maintain as per the rules by using a computer or another similar mechanical system or the method as prescribed by IRD.

#### **2.2.18 Return Filing (Section 18)**

1. Every taxpayer shall self-assess its tax liability every month and shall submit, in a format as per annexure 10 of the Rules, a tax return to a tax office or by a registered post, within 25 days after the close of that month.

2. Section 18(1ka) has given a facility to deposit tax and submit tax return at an office of the Comptroller General situated in a district in which there is no any IRO. The office of the Comptroller General has to send the amount and the returns to the respective IRO within seven days of receipt.
3. Rule 26(1) provides that a taxpayer, having a turnover of more than Rs. 20 lacs but up to Rs. 1 crore during the preceding 12 months, may submit tax returns of upto the 25<sup>th</sup> day of these months: Shrawan, Ashwin, Marg, Magh, Chaitra and Jestha.
4. Rule 26(3Ka) provides that a taxpayer running Hotel and tourism business, in case they need, may submit tax returns every two months.
5. Rule 26(3) provides that a taxpayer, who has taken a registration voluntarily and whose annual turnover is within Rs. Twenty lacs, has to submit the tax return of up to the 25<sup>th</sup> day of Shrawan, Marg and Chaitra.
6. Those taxpayers keeping computer-based accounting may apply for a different tax period.

### **2.2.19 Assessment by Tax Officer**

Tax return submitted by a taxpayer is treated as self-assessment of its tax liability or the management's assessment. But, under the following conditions a tax officer has a right to make tax assessment:

1. If a return is not submitted within the time limit
2. If an incomplete or erroneous return is filed
3. If a fraudulent return is filed
4. If the tax officer has a reason to believe that the amount of tax was understated or otherwise correct or
5. If the tax officer has a reason to believe that the taxpayer has caused under-billing.

The assessment may be made on one or more of the following bases:

1. Proof of transactions;
2. A tax audit report on transactions submitted by the concerned tax officer; and
3. Tax paid on a similar transaction by another person.

Further section 20(4) provides that the assessment of tax, if needed, shall have to be made within four years from the date of a tax return being filed. If the stipulated time expires the returns so filed shall be considered to be true and valid.

Again section 20(4ka) provides that in case the taxpayer has prepared accounts, invoice, or any other documents fraudulently; or if he has fraudulently been involved in tax evasion, IRD can order an assessment at any time, irrespective of the above time limit.

Also as per section 20(5), while assessing the tax pursuant to this section, the tax officer shall provide a period of fifteen days to the concerned person to submit his clarification. Moreover, the burden of proof lies on the tax officer for the reasons of the assessment

#### **2.2.20 Jeopardy Assessment (Section 22)**

Whenever there is a reason to believe that the collection of tax is in jeopardy because any person is about to leave Nepal or to transfer his property to anybody or to remove or conceal assets, a tax officer, with the approval of DG, may immediately assess and collect the tax due, or about to become due.

#### **2.2.21 Right of Inspection and Examination (Section 23)**

A tax officer may examine, if there is a reasonable ground to believe that a taxpayer required to be registered under this Act has been involved in a taxable transaction without being registered.

A tax officer may utilize the following powers for such inspection, for verification of tax returns and for assessment of tax under section 20:

1. To inspect all goods, premises, documents, records, books and accounts relating to the tax liability;
2. To search a taxpayer's place of transaction and other places, if he has grounds for suspecting to possess evidence related to any offence under this Act;
3. To require, in pursuance with discharging his own duties, information from a person who prepares any records, books, accounts or other documents or makes entry therein; and
4. To take possession of , remove and transfer any documents, books and records from the taxpayer's transaction place and other transaction places related thereto; and
5. To perform audits at the taxpayer's place of transaction, at a tax office or at any other appropriate place.

If a tax officer requests any person, including bank or financial institution for access to any information about the taxpayer's transactions, it shall be the duty of such person to furnish such information to the tax officer. Further section 23 Ka provides that if a tax officer requests help from local authorities or police in execution of the Act, it shall be the duty of the concerned authorities to provide them the required help. Also as per section 23 Ga a tax officer, in case thinks that the taxpayer has issued an invoice for goods sold mentioning a price below its actual price and the same kinds of goods are in stock of the taxpayer, can order for withholding the goods in stock and IRD or an IRO may purchase or may arrange for the purchase of the goods at a price that is mentioned on the invoice. In case the taxpayer is not ready for such sales, IRD or any IRO shall take the delivery of the goods and shall pay the amount in demand of the taxpayer. The goods so purchased shall be disposed off at a price and as per directions issued by the DG.

#### **2.2.22 Determination of Market Price**

As per section 13 of the Act the market value of goods or services shall be determined as the consideration in money which the supply of these goods and services would generally be agreed on if the transaction were made under similar circumstances at that date in Nepal taking into consideration the characteristics, quality, quantity, and any other relevant factors, being a supply freely offered and made between persons who are unrelated.

Rule 22 of the Value Added Rules specifies that a tax officer shall determine the market price by studying the transactions and value of other vendors registered in regard to the transaction of the same nature. Even more section 13(3) and rule 22(2) specified that where the market value of the goods or services could not be determined as prescribed above, it shall be determined in accordance with a process determined by the Director General.

#### **2.2.23 Management Information System (MIS)**

The term Management Information Systems (MIS) may relate to the MIS of the IROs with IRD and other government departments with IRD. These systems are In-house exchange of information about the activities of taxpayers. Custom offices maintain computerized records of imports and exports by taxpayers. Custom offices provide the record to IRD for its use. IRD uses the records to check the figures

provided by the taxpayers in tax returns. These figures are also being used for income tax assessment of a taxpayer by reconciling the figures with the figures in income statement. In the same way, there is an exchange of information between excise, VAT and income tax. IRD has established a separate information technology section (IT Section) the access of which is available to IROs through networking. Information received by way of returns, inspections and other means are inputted to the computer for use by the IROs or IRD. This network processes the return and payment vouchers and also calculates the interest, fines, penalties, etc chargeable as per the Act. Management Information System (MIS) does the following functions:

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

The IRD receive the tax registration applications, tax returns, tax assessments and tax payment vouchers. These offices prepare the batches of documents received and make entry in computers under a designed program. Each batch contains the name of IRO, date, number, type, number of returns or statements, name of batch-maker. Then they transfer the data through on-line system to MIS division of IRD. IRD identifies the suspense filers and non-filers. 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 (Agrawal, 2004).

#### **2.2.24 Tax Refund (Section 24)**

As per section 24 of the Act and relevant Rules of the same Act, if a registered person's set off for a month exceed tax payable for the month, this excess may be set off against any outstanding amount under this Act. The remainder of the excess setoff may be available as a setoff for the next month. Furthermore, a registered person may file a claim, in tax return as per annexure 10, to a lump sum refund of the amount of the remaining excess after setting off for a continuous period of six months under this section. However, in case of an export equal to or more than 50% of the sales during the month, it may apply for the refund immediately after the close of the month. The

amount eligible for refund shall be paid immediately and if it is not refunded within 60 days of the submission of the application, Nepal Government shall have to provide interest @ 15% p.a on that amount. And when a person has applied for the refund of the tax, it is not allowed for set-off against the tax payable for the next month.

Further section 25 of the Act has laid down following conditions wherein if the application for refund is submitted within 3 years from the date of the transaction on which the claim for refund is based, tax shall be refunded immediately:

1. Diplomat of a foreign country if the foreign country grants, on a reciprocal basis, the tax exemption privileges to Nepalese diplomats;
2. In case Nepal Government, Ministry of Finance, has granted the privileges of tax exemption;
3. Under a bilateral or multilateral agreement for which Nepal Government, Ministry of Finance, has approved to grant a tax exemption; and
4. Any tax collected by mistake.

However as per section 25(1ka), refund under this section shall not be allowed for a purchase of goods or services at a time for less than Rs. 1,500.00. Also, as per provision of section 25 KA, those foreign travelers who visit Nepal and returns from Nepal through airways and have purchased any taxable items for more than Rs. Fifteen thousand possessing the goods with him/her at the time of departure from Nepal, VAT paid on purchases of goods in Nepal shall be refunded as per the procedure set by IRD.

#### **2.2.25 Rights of Taxpayer**

The following rights are available to the taxpayer:

1. Right to defend (Section 20(5))
2. Right to refund tax (Section 24)
3. Right to apply for departmental review (Section 31Ka)
4. Right to appeal to the Revenue Tribunal (Section 32)

#### **2.2.26 Administrative Review**

As per section 31Ka, in case a taxpayer is not satisfied with any decision on tax assessment made by a tax officer, it can file an application to IRD for an administrative review within thirty days of receipt of the notice of the decision. In case a taxpayer is not able to submit an application within the specified days, it can

apply to IRD for extension of the time, specifying the valid reasons for the delay, within seven days from the expiry of the time. IRD may extend the time for a period not exceeding 30 days from the expiry of the time. In case the IRD, on scrutiny of the application and the documents submitted by the taxpayer, thinks that the application is allowable, after noting the fact in a file, it may order a re-assessment by the same tax officer or by any other tax officer. Again IRD has to decide on application within 60 days of the date of application being received. And in case IRD fails to decide on the application within sixty days, the taxpayer may appeal to Revenue Tribunal.

#### **2.2.27 Appeal to Revenue Tribunal (Section 32)**

As per section 32 of the Act in case a taxpayer is not satisfied with a decision of the DG for suspension of the business under Section 30 or a decision of IRD on administrative review under Section 31A(4), it may appeal to Revenue Tribunal in accordance with the Revenue Tribunal Act, 2031. A taxpayer, who appeals to a Revenue Tribunal, within fifteen days of such application, should submit a copy of such appeal to IRD.

#### **2.2.28 Offences and Penalties**

Section 29 of the Act has provided conditions wherein registered person is liable for the penalties in following conditions:

1. Non-registration within prescribed time limit
2. Non display of the certificates of registration, use of the registration number on certain documents and correspondence and information to IRO in case of changes in any particulars within fifteen days
3. Tax board not displayed
4. Tax board not displayed at the prescribed place
5. Failure to issue a tax invoice and purchase of more than Rs. 10000/- for business purpose from other than registered person
6. Unregistered person issuing invoice or documents showing collection of tax
7. Accounts are not updated
8. Accounts are not made available for inspection
9. Accounts kept do not have required information
10. Purchase books and sales books are used without certification
11. Accounts are not preserved upto six years

12. Return not submitted in time
13. Obstruction in inspection by tax officer
14. Invoice issued at lower than the actual price
15. Infringement of this Act and Rules.

### **2.2.29 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 Literature**

### **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.

**Pandit** (1996), "*Kardatako Guide*" by 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.

**Khadka** (1997), "*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.

**Silwal** (1997), *“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. -

1. Narrow tax base and low rate.
2. Low elasticity and buoyancy.
3. Parochial administration
4. 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 preparatory work was not complete. In his own words,

1. The computer system was not ready.
2. The staffing was not complete.
3. 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.

**Adhikari** (2003), *“Value Added Tax in Nepal: Theory and Practice”* is written by 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.

**Kandel**, (2004), *“Tax Laws & Tax Planning in Nepal”* 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.

**Amatya, S.K., Pokharel, B.B. & Dahal, R.K. (2004)** ,“*Taxation in Nepal (Income Tax, Property Tax & Value Added Tax*” has exclusively been designed for the subject “Taxation in Nepal” as per the syllabus prescribed by the Faculty of Management, Tribhuvan University for 3<sup>rd</sup> 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 3<sup>rd</sup> 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.

**Bhattarai and Koirala, (2006)**, “*Tax Laws and Tax Planning*” 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 2<sup>nd</sup> 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 Research Papers, Articles & Journals**

**Lent et al., (1973)**, “*Value added tax in developing countries*”, state that “following the adoption of value added taxes by Western Europe countries, many developing countries have been giving increased attention to this form of tax as a means of rationalizing their sales tax and improving their revenue.”

The study was proposed to examine the applicability of VAT in developing countries. After the empirical study of VAT structures of seven countries i.e. Brazil, Equador, Ivory Coast, The Malgasy Republic, Morocco, Senegal and Uruguay in 1973 and draw the principle features of VATs in developing countries. Applying comparative analytical methodology and covering the issues such as revenue

importance of the VAT, problems of administration, comparison of the VAT with other forms of sales tax, only with a comprehensive and uniform coverage it is possible to achieve a truly neutral sales tax i.e VAT.

The government of India in 1978 appointed L.K. Jha as the chair person of the committee to examine “The adoption of VAT at retail level.” Such committee was called Jha committee. After study, Jha committee presented the report in which the VAT was rejected by saying no need to adopt comprehensive VAT because of administrative constraints, constitutional problems and revenue consideration. But Jha committee concludes VAT can deliver better satisfactory solution of excise duty. It means VAT should be applicable at manufacturing level.

**Chang, Recente, and Lourdes, Ma.** (1988), *“The VAT experience in Republic of Korea”* states that the adoption of VAT was a response to the complex problems arising from the indirect tax structure. One of the reasons for adopting the VAT was to simplify the indirect tax structure of Korea.” This was also expected to contribute to reduction of the price of commodities in the domestic and exports markets. Similarly, on the advantages of VAT expecting to eliminate cascading effect of taxation, efficiency in resource allocation, to increase revenue for the government (although it was not primarily introduced to increase government revenue) being it a broad based and built in cross-checking mechanism. VAT was introduced in Korea in 1977.

The study pictures out the VAT very precisely and detail after its implementation and visualizes the conditions of the Korean economy before and after its adaptation using with descriptive and analytical methodology, covering various empirical studies and proposals made by various researcher, economists and practical men for VAT reforms in Korea. The study draws the pre-VAT scenario saying that “Prior to adoption of VAT.” The system of indirect taxes in Korea was complicated and distortionary with several taxes and rates.” The study covers the issues reasons for adopting VAT, guidelines for adopting VAT, the VAT structure, the preparation for VAT reform, implementation, administration and problems, measures to improve it and conclusions giving various data and illustrations.

Korea has introduced the consumption type of VAT covering all stages of production and distribution, charged on supply of goods and services including imports with 10% of normal rate, applying tax credit method for calculation, zero rating on exports and basic necessities with some exemptions in very small firms, and

supplemented the VAT by excise duty on luxuries and giving special tax payer's facilities on small business.

**Due and Meyer** (1988), examine the VAT in Dominican Republic. The VAT in Dominican Republic was in effect from November 1983. However, the general reaction towards the tax was hostile from the business sector. Labor unions as well as political parties opposed the tax. Much of the complain rose from increased record keeping requirements because the commercial sector of economy was dominated by small and medium sized business. The other main objection was due to the belief that VAT was responsible for increase inflation, but the inflation was due to other reasons. There was a general agreement that the enforcement of the tax had not been adequate mainly because of the lack of personnel. Evasion was wide spread, many firms failed to register. The overall evaluation of the tax in the country, therefore, remains rather negative. While the tax has brought additional revenue, the inadequate enforcement and failure to extend it to the commercial sector as planned, and the use of make shift, distorting system in the latter have resulted in serious failure to attain the advantage of a complete value added tax. The experience of the country with the tax provides a warning to other developing countries not to attempt to use a value added tax extending beyond the import and manufacturing sectors without careful consideration of the ability of the wholesale and retail sector to operate the tax, and general attitude of these sectors towards the tax.

**Ahmand and Wallow** (1989), identify the alternative tax reform packages on VAT for Pakistan keeping the distributional consequence in consideration. The authors have their own method for the tax reform analysis. In the first step, they describe the existing taxes and then, examine the consequences of the tax changes (and thus price changes) on households, resulting government revenue and also implications for production. They analyze and compare the consequences of different options such as the single rate VAT with selective exercise and some exemptions (or Zero ratings), and multiple VAT rate. The reform with equal revenue and the reform with additional revenue as well as the production implications of tax reform are also considered. The work shows that instrument can be designed to increase revenue and at the same time, protect the poor. A value added tax supplemented with selective excises would have made Pakistan's tax system more buoyant and reduced the production distortions inherent in Pakistan's current tax system and not at the expense of the poor.

**Binguang Hsiung** (1991), has made an effort to assess the VAT in Taiwan, which was in effect since 1986. According to her, the VAT in Taiwan was implemented in order to increase the competitiveness of exports and improve the efficiency of business tax structure. VAT had replaced business receipt tax, stamp tax and commodity tax, which constituted 28% of total tax revenue. The impact of VAT showed that the business tax revenue increased considerably although the reform was aimed to be revenue neutral. Adoption of VAT did not cause price fluctuations. Another surprising impact of VAT was that the revenue from the business income tax increased significantly immediately after the adoption of VAT. This may be attributed to the cross-checking procedure provided by VAT. As for exports, there did not seem to be a direct link between VAT and exports since exports are influenced by a number of factors. The tax fell heavily on the public sector business and they were more affected by VAT than the private sector business. Generally, it can be said that the VAT system tremendously improves the efficiency of tax collection. However, there are some rooms for improvements especially in administration. The experience of Taiwan has attested to the superiority of VAT in taxing business activities.

On “Key questions considering value added tax for Central and Eastern European Countries” Prof. Sijbren Cnossen developed a model for central and eastern European countries, on the base of the observation on the value added tax in EC and OECD countries. In this article, he states that it required nearly complete overhaul of the tax system and in most countries the introduction of VAT is considered a corner stone of the necessary tax reform.” In addition, he describes that this form of taxation is worldwide, apart from that of a transaction based, accounts controlled VAT in the market economy based on the free enterprise and pricing system.” At last, he has concluded that and appropriate VAT for central and eastern European countries has proceeded from the widely agreed promise that the tax should be used almost exclusively to generate revenue for government budget in as neutral and administratively feasible manner as possible. While the income tax can be employed to achieve distribution objectives and excises and imports duties to attain allocate goals, “the focus of the VAT should be on revenue”.

**Due and Grany** (1991), tell a successful story of VAT in Trinidad and Tobago in their paper, “Trinidad and Tobago: The development of VAT” A value added tax of general type went into effect in Trinidad and Tobago in 1990. Development of VAT was carefully planned and it went through the several phases

from 1986 to 1989. A tax performance committee was established to review the current tax system and developed a preliminary recommendation for direction of reforms. The studies showed that the existing tax system was in urgent need of revision for several respects. The value added tax was put forward as an alternative. Further, the issues such as choice of rate, structure, exemption, tax administration etc. were resolved for the final adoption of VAT. The structure of VAT was drafted in the final report after a careful examination of several issues including revenue and equity with the development of analytical models. After so many detail works, it was finally drafted and passed by the legislation in 1989.

The VAT was well received and also welcomed by the business community. One year's experience showed that the operation was reasonably satisfactory. It yielded the previous expected and forecasted results. For its success, there were several reasons such as careful planning for tax structure and administration, a close cooperation between the government and business sector, the extensive publishing program, the coordination reform (reduction) in purchase tax and income tax and selection of competent person in key positions. There are several things that can be taken as suggestions from Trinidad and Tobago for the introduction and operation of VAT to other developing countries as well.

**Shahabuddin M. Hossain** (1995), investigates income distributional implications of different VAT schemes in Bangladesh in his paper "The equity impact of value added tax in Bangladesh". Applying the method developed by Ahmad and Stern and using the data of household consumption expenditure and input-output table, the results obtained indicate that a revenue-neutral uniform VAT is regressive (relative to pre-reform situation) in its impact on the income of different households. The paper also explores the income distributional impact of an alternative policy package, and the welfare consequences of the alternative package are found to be superior to those of uniform VAT. The findings of the study suggest that, among different possible VAT schemes, a selective VAT with exemption (or zero ratings) and additional exercise is clearly preferable than to a complete uniform VAT if the distribution issues are of dominant concern in tax reform.

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:

1. VAT effects adversely in price level

2. It increases the price of imported goods. Ultimately increase the cost of production there by reduces the export business.
3. Requirement of book keeping is complicated.
4. It would finally affect the small traders.
5. It is untimely to implement.
6. It would be unjustifiable on social ground.
7. Present administration in 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 favor of phase-wise implementation of VAT. The study analyses negative impact of VAT neglecting its positive impact.

**Khadka, R. Bahadur** (2001), has developed his experience and knowledge achieved in the study tour in Germany into the small booklet named as “A report on the German tax system study tour” in order to distribute its lessons and usefulness. This book covers all useful discussion held in Germany with policy makers and tax administrators as well as the taxpayers on the various related topics. Besides, the study observes the tax administration, training center, tax rates, the excise tax system and the distribution of the collected revenue. In relation with VAT, the government of Germany includes VAT as a shared tax. In this category, the collected revenues from the various tax systems are distributed among the different levels of the government. VAT is imposed on the valued added at all stages of production, import and distribution. The revenue received from the VAT tax by the state government is distributed on the basis of population. Furthermore, when data becomes available, a sound policy can be formulated and a tax system be made on the basis of the result of introduction of VAT in Germany. “when introducing VAT, the number of taxpayers will increase significantly and will be difficult to do all the work manually such as checking whether the tax payers have submitted the tax forms or not, paid the tax or not or whether the interest is paid or not. It is essential to introduce a computer system, which is suitable to the country even though the standardized system developed in countries.

In a research under the title of “Tax reform in Singapore” Glenn Jenkins and Dr. Rup Khadka has made an effort to assess the VAT in Singapore, which was in effect since 1993. This working paper carries the successful story of VAT’s introduction and implementation in Singapore to be a good lesson for the non-VAT

countries and VAT countries. According to the authors, Singapore put forward the VAT/GST in order to make Singapore economy internationally competitive. In this direction, government of Singapore formed a task force committee for the tax reformation. The committee recommended that the government must shift from direct to indirect taxes as its main sources of revenue.

The research papers concluded that Singapore would be facing the problem of an aging population. In such a situation, income taxes will put a greater burden on a smaller group of younger, working Singaporeans; this might inhibit growth and enterprise. It is therefore, necessary to introduce a broad-based tax like GST/VAT to distribute the burden of taxation among a larger section on the population. GST is a tax on consumption and has several features. It relieves investment and saving from the tax burden and rewards enterprise and strengthens economic resilience. GST relieves exports commodity taxes through the zero rating mechanism.

Since, VAT is a fairer tax and is levied on a large section of the population, including the self-employed; it is less affected by economic cycles. GST provides a more stable source of revenue than many other taxes. The main objective of Singapore to introduce VAT is to make its economy internationally competitive, to promote exports and to develop a broad based and more stable source of tax revenue.

### **2.3.3 Review of Previous Researches and Dissertations**

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

**Dhakal** (2004), submitted his research work on “*A Study on Practices of Value Added Tax in Nepal*” at Tribhuvan University. His thesis was guided by the primary objectives like

1. Reviewing Nepal’s overall tax structure for the period 1009/91 to 2001/2002,
2. Examining the theoretical background of VAT,
3. Analyzing the existing VAT system of Nepal with special emphasis on revenue mobilization and
4. Identifying the major problems of VAT in Nepal.

The major findings of his study are as follows:

1. The implementation of VAT system has a greater significance in Nepal. However the VAT system in Nepal from its inception has been facing innumerable problems, which curtail its merits and effectiveness.
2. Its progress has been slow, initially due to opposition from the business community. There exists an immense administrative problem. Even after its full-fledged implementation in 1999, the system has not been taking a considerable place due to administrative inefficiency.
3. 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.
4. The establishment of proper co-ordination between Inland Revenue Department and Ministry of Finance,
5. 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.

**Kuikel** (2004), in his research study submitted to Tribhuvan University on "*Effectiveness of VAT in Revenue Collection in Nepal*", by using the analytical and explanatory research design, having the objective to

1. Analyze the trend of revenue collection before and after the introduction of VAT in Nepal,
2. Investigate effectiveness of VAT and
3. Investigate the problems in VAT,

The major findings of his study are as follows:

1. The main reason behind the introduction of VAT in Nepal are to increase revenue mobilization by broadening the tax base to make system neutral and efficient to establish a fair and transparent tax system and to promote economic growth.

2. The tax revenue structure shows that although share of indirect tax in total tax has continuously declined the share of VAT to indirect tax has been increasing with some fluctuation.
3. To enhance the revenue collection from VAT there is a necessity to establish proper accounting and invoicing system.
4. Tax administrators, tax payers and consumers need to be educated about VAT system.
5. The VAT eliminates various defects of sales tax by replacing its pyramiding and cascading effects. Other source of taxation are not able to get required level of revenue generation so, implementation of VAT for Nepal is both a compulsion and necessity.
6. It is only the preliminary stage of VAT implementation in Nepal, so the revenue contribution from VAT is not as high as expected due to various reasons such as availability of clear VAT laws and legislation, effective and efficient administration, honest tax payer, good education program, establishment of proper invoicing mechanism and extension of tax coverage are the most important factors which obviously increase the revenue mobilization through VAT.

**Aryal** (2006), in his research work submitted to Tribhuvan University, “*An Analysis of Value Added Tax in Nepal*”, having the objective to

1. Review historical background of VAT,
2. Analyze the legal provisions of VAT,
3. Analyze VAT & its importance in Nepalese economy,
4. Analyze role of VAT in internal revenue collection in Nepal,
5. Find out problems in collecting VAT & giving recommendation for improving them and
6. Recommend for making VAT effective & efficient in mobilization for resources

The major findings of his study were:

1. There will be improvements in revenue collection due to VAT system.
2. The main problems in VAT collection are smuggling & under valuation, tax unconsciousness of people, tax evasion & improper billing system. Similarly, the major problem in VAT collection is registration, collection, tax refund.

3. VAT system has positive effect in nation's economic growth. VAT in itself is not more revenue generator, it is only scientific system of collecting revenue, and it needs more administrative support & efforts.
4. The implementation of VAT in Nepal has very poor results than expectation. Those reasons are poor planning, unaccountable staffs, weak and corrupted bureaucracy. Corruption is widely spreading in political as well as administration from top level to bottom level of authority. People are less literate about theoretical concept of VAT, so they cannot play creative support for the implementation of VAT. It is necessary for the tax payers to know about the VAT with its benefits. Different education programs, seminars etc. should be organized for tax payers as well as general public in all over the country with the objectives to aware them about VAT which helps to bring more and more tax payers in the tax bracket. In order to make VAT effective, it is essential to create an environment in which invoices are properly issued and accounts are maintained accurately.

**Dangol** (2006), in her research work submitted to Tribhuvan University, "*Tax Reform in Nepal: A study of Value Added Tax*", by using the analytical and explanatory research design and having the objective to:

- 1 Study the historical background of VAT,
- 2 Analyze the contribution of VAT on national revenue,
- 3 Examine the problems arising due to VAT & its effectiveness in revenue collection,
- 4 Examine the appropriateness of tax rate under VAT system in Nepal and
- 5 Provide suggestion for the improvement of VAT system of Nepal

The major findings of her study are as follows:

- 1 The educational program must be organized,
- 2 Political instability should have lesser impact on VAT and advertisement should be increased for effective implementation of VAT in Nepal.
- 3 Only under invoicing has not negative impact on the implementation of VAT but also prevents fair competition between businessman and the professional and tax paid by consumers end up in the pocket of tax evador.
- 4 Issuance of proper invoicing and maintenance of accurate accounting by the taxpayers will help implement Value Added Tax more effectively and encourage fair competition.

**Chhetri** (2010), in his research study submitted to Tribhuvan University on “*Value Added Tax in Nepal: Past and Present*” by using the analytical and explanatory research design, having the objective to

- 1 Examine change in revenue structure after and before implementation of VAT,
- 2 Examine contribution of VAT in total GDP and tax revenue,
- 3 Examine the number of tax payers registered and cancelled under the VAT and
- 4 Forecast the amount of VAT collection for coming 10 years

The major findings of his study are as follows:

1. Value added tax system has been implementing in Nepal has completed eleven year it has the target to increase 0.25 percent GDP per year but due to various complexities and problem this tax system has not been able to achieve the expected level of success.
2. The government expenditure is increasing continually but a revenue resource is very limited which led to the country to fiscal crises. The major cause of persisting fiscal deficit in Nepal is due to the poorly designed and defected tax system which cause inadequate mobilization of resource.
3. Contribution of indirect tax revenue is large in government found where the show of indirect tax revenue is more than 75 percent. The value added tax is seemed position after custom in indirect tax revenue.
4. In Nepalese tax structure indirect tax is more important than direct tax from the point of view of revenue generation. Before implementation of VAT, the contribution of direct tax ratio was around 19 percent but after VAT is around 22%. The indirect tax contribution before implementation VAT was around 79 percent and after VAT implementation it is around 76%.
5. These are custom duties, sales tax/VAT and exercise duties. In average custom duties is the main source and sales tax is the second position in indirect tax revenue. But in the years 2006/ 07 fifty percent of indirect tax revenue is covered by the VAT revenue. The VAT contributed the 50 percent in total indirect tax revenue.
6. The contribution of sales tax was 1.95 on GDP in fiscal year 1991/02. value added tax contribute in average around 3 percent of GDP in Nepal. Its contribution on GDP reached to 3.90 percent in year 2005/06.

7. There is no significant change in revenue structure before and after implementation of value added tax.
8. Before implementation of VAT there were various taxes .They were hotel tax contract tax, entertainment tax and sales tax having different tax rates. Hotel tax was between 10 to 14 percent, sales tax was 15 percent, contract tax was more than 100 percent the flat rate 10 percent of VAT replaced and made simplicity and easier.
9. Number of tax payers registered under VAT has been increasing year after year but their increasing ratio in latest year seen unsatisfactory. The total number of registered tax payers (under VAT) reached to 52965 in the year 2006/07.
10. Import generates more VAT revenue than domestic production. Thus import is the main base of VAT in Nepal.
11. Projection of VAT coming 10 years shows the optimistic future by the base of implemented the past sales tax and VAT.
12. Status of transaction reports shows the debit taxpayers are less than credit and zero tax payers. The debit tax payers are about 25 percent.
13. The value added tax revenue for the year 2018/19 is estimated as Rs 22847 million.

**Pradhan** (2010), in his research study submitted to Tribhuvan University on “*Tax Payers Education Regarding VAT Collection in Nepal*” by using the analytical and explanatory research design, having the objective to

1. Assess the current status of tax payers education and awareness regarding VAT,
2. Find the relation between VAT collection and taxpayers education,
3. Examine the effectiveness of present management system of VAT and
4. Provide suggestion for improving taxpayers awareness in Nepal

The major findings of his study are as follows:

1. VAT has been the most essential choice as ingredient of tax reforms of developing countries like Nepal, which lead to revenue enhancement and sustainable economic development. The tremendous scope for increasing the revenue through VAT and sound implementation of VAT will obviously increase its contribution in coming days.

2. The contribution of VAT to government revenue (GDP) on Nepal is very low with comparison to other developed countries. The contribution of VAT revenue as a percentage of GDP remained 2.69, 2.73, 2.60, 2.73, 2.70, 3.21, 3.36, 3.67, 3.71 and 3.79 From the FY 1999/00 to 2008/09 respectively.
3. The contribution of VAT revenue to the total tax revenue is in increasing trend, though it is fluctuating percentage wise. It is beneficial for sound economic development. Despite the various difficulties on the implementation of VAT, the collection trend of revenue through VAT is not so bad. It is expected to generate more and more revenue in coming days. VAT generated about Rs.9850million revenue in FY 1999/00. It has reached to Rs. 29908.7million in FY 2008/09, which is 203.64% increased in comparison to FY 1999/00.
4. The contribution of tax revenue to the total revenue is higher than non- tax revenue. The tax revenue is increasing trend i.e. it is 77.29% in 1999/2000 and it reached to the 82.75% in 2008/09 but non- tax revenue is decreasing as 22.71% to 17.25% in 2008/09. It shows that the tax revenue is important revenue for the government so that the government should make program for the awareness for the taxpayers.
5. The total tax revenue is divided into direct tax and indirect tax. The direct tax and indirect tax is increasing from 8915.5 to 19460.7 in 1999/2000 to 2008/09 and 24200.7 to 5313.11 in 1999/2000 to 2008/09 respectively. The contribution of indirect tax is higher than direct tax in total tax revenue.
6. The survey of the contribution of income tax to the government revenue is important i.e. most of the respondents are in favor of income tax revenue is contributing significant place to the government revenue.
7. From the survey most of the respondents are familiar with the Nepalese income tax i.e. the respondents have knowledge about the Nepalese income tax system.
8. Form the view of respondents, it found that present income tax exemption limit is not appropriate it means most of the respondents are not feel appropriate income tax in present situation .

9. The survey shows that the Nepalese income tax is not effective that means most of the respondents show that Nepalese income tax system is ineffective.
10. From the respondents opinion it is clear that the education about tax for taxpayer is necessary i.e. hundred percent respondents shows that the education about tax for taxpayer is needed.
11. From the opinion of the respondents, it is clear that the good knowledge about custom duty to taxpayer help to increase the government revenue i.e. most of the respondents responded that good knowledge about custom duty increase government revenue.
12. From the survey, most of the respondents are familiar about the VAT.
13. From the opinion of respondents, it is clear that current VAT rate is not applicable it means most of the respondents show their view against the applicability of current VAT rate. It is found that there are many problems of VAT system in Nepal.
14. From the survey the prioritized problems are unfair and weak administration, lack of consumer awareness, underground economy and others.

## **2.4 Research Gap**

About ten years have already been passed since VAT come into operation but very few studies had been undertaken on the topic of VAT in the Nepalese context and most of the studies were related with theoretical aspects. They mainly focused on the revenue portion of VAT. However, such special study related to effectiveness of implementation regarding VAT has been limited. In this study, the researcher has attempted to evaluate the contribution of VAT to the government revenue, its leakages and public awareness regarding VAT as well as taking the major market area of Kathmandu City by conducting field survey, in order to know somehow about the practical experience of VAT.

## **CHAPTER – III**

### **RESEARCH METHODOLOGY**

#### **3.1 Introduction**

In this chapter, efforts have been made to present and explain the specific research design in order to attain the research objectives. It includes construction of research design, nature of data, sources of data, data collecting procedures, population and sampling, data processing procedures and different tools and techniques that will be used in course of thesis preparation for analysis and interpretation of data.

#### **3.2 Research Design**

A research design is a plan for collection and analysis of data. According to F.N Kerlinger, "Research design is the plan, structure and strategy of investigation conceived so as to obtain answers to research questions and to control variances." Thus it is not possible for the researcher to conduct a research work without research design. The objective of the study is to analyze the effectiveness of VAT system in Nepal. Most of the data and information of the study will concern with the past phenomena of the performances either they are numerical or opinions.

As per the nature of study, secondary data as well as primary data sources (survey method) will be used with explanatory and analytical approach. Hence the research design used in the study will be both descriptive and analytical.

#### **3.3 Population and Samples**

All the persons who are directly or indirectly concerned with the VAT system in Nepal residing within the demarcation of Nepal will be considered as the Total Population under study. Out of them, only three groups of persons with sample size of 20 respondents each will be selected for sampling. The respondents will be randomly selected from capital city "Kathmandu" and business city "Butwal." The tax experts and top policy makers will be selected from the Ministries, Nepal Rastra Bank, Inland Revenue Department, Revenue Consultant Committee and Universities in Kathmandu. The Tax Officers will be nominated for questionnaire form main Inland Revenue Offices. Businessmen and Consumers will be nominated mainly from

Kathmandu and Butwal only. For reliability of data and information, main business entities and key customer groups will be given priority.

**Table 3.1**  
**Group of respondents and size of Sample from each group**

S.N	Groups	No of respondents	Remarks
1	Tax Experts	20	
3	Businessmen	20	
4	Consumers	10	
	Total	50	

### **3.4 Sources of Data**

The study is based on historical information provided mainly by Inland Revenue Department of Nepal, Nepal Rastra Bank and Inland Revenue Offices. Both primary as well as secondary data will be collected in order to trace the real and factual findings of the research. All the possible and useful data as far available will be collected. The major sources of data are as follows:

#### **(A) Primary Data**

Primary information will be collected mainly from tax experts, tax officers, businessmen, consumers and students through administration of research questionnaire and open discussion with them.

#### **(B) Secondary Data**

The following will be the sources of secondary information and data for the purpose of research:

- Economic survey and budget speech of Ministry of Finance, Nepal.
- Annual and periodical reports of Inland Revenue Department of Nepal.
- Annual and periodical reports of Nepal Rastra Bank
- Reports of other offices and organizations/ NGOs/INGOs

- Books, Journals, Newspapers & Bulletins.
- Previous dissertation, thesis and research papers.
- Periodical publication of Inland Revenue Department of Nepal.
- Related URLs.

### **3.5 Data Collecting Procedure**

The primary data will be collected by distributing the questionnaire to the respondents through different means like personal contact, telephone, email etc. The secondary data will be collected by visiting the concerned ministries, departments and offices, visiting the central library and library of the Campus as well as by visiting the websites of respective offices and publishers.

To get reliable information, discussions will be conducted with experts and others related to the VAT system in Nepal.

### **3.6 Data Analyzing/Processing Procedure**

Data collected from secondary sources will be analyzed by means of statistical tools like bar diagrams, pie charts, standard deviation, coefficient of variance, correlation coefficient, Test of hypothesis, T-statistics, probable error(PE), trend analysis and other applicable tools wherever necessary.

The data collected from opinion survey and questionnaires are in raw form. They will be classified and tabulated in required form.

Simple arithmetic percentage tools will also be used for analysis of both primary as well as secondary data.

#### **Basic statistical Tools to Be Used**

The basic statistical tools and techniques that will be used in processing, presenting and analyzing the data are as follows:

##### **(1)Standard Deviation (SD)**

The measurement of the scatterness of the mass of figure in a series about an average is known as dispersion. The standard deviation measures the absolute dispersion. The greater the amount of dispersion, greater will be the standard deviation. A small standard deviation means a high degree of uniformity of the observation as well as homogeneity of a series. In this study, standard deviation of different ratio is calculated. It is denoted by ' $\sigma$ '.

$$S.D. = \sqrt{\left[ \frac{\sum X^2}{n} - \left( \frac{\sum X}{n} \right)^2 \right]}$$

## (2) Coefficient of Variance (CV)

The coefficient of variance measures the ratio of the standard deviation to the mean expressed in percent. It is calculated as under: -

$$C.V. = \frac{\sigma}{\bar{X}} \times 100$$

Where,

$\sigma$  = Standard deviation

$\bar{X}$  = Mean value of variances

Coefficient of variance is also useful in comparing the amount of variation in data groups with different mean. It is the relative measure of dispersion. A distribution with smaller coefficient is said to be more homogeneous than the other. On other hand, a series with greater coefficient of variance is said to be more variable of heterogeneous than the other (*Gupta, S.C.; 2000:416*).

## (3) Correlation Coefficient (r)

It is a useful statistical tool for measuring the intensity of the magnitude of linear relationship between two variables. The most important method of measuring the correlation between the two variables is “Karl person’s coefficient of correlation.” If the values of the variables are directly proportional then the correlation is said to be positive. On the other hand, if the values of the variables are inversely proportional, then the correlation is said to be positive. On the other hand, if the values of the variables are inversely proportional, the correlation is said to be negative, but the correlation coefficient always remains within the limit of +1 to -1. The correlation coefficients (r) between two variables X and Y can be obtained by using following formula;

$$r = \frac{N \sum XY - \sum X \sum Y}{\sqrt{N \sum X^2 - (\sum X)^2} \sqrt{N \sum Y^2 - (\sum Y)^2}}$$

Where,

r = The Correlation Coefficient between two variables X and Y

#### (4) Test of Hypothesis

A hypothesis is defined by Webster as “a tentative theory or supposition provisionally adopted to explain certain facts and to guide in the investigation of others”. However, in statistics, hypothesis means a statistical statement about the values of one or more parameters of the population. After setting the hypothesis, it is necessary to test the reliability of such statistical statements. For this purpose, an experiment is conducted by using sample information and the hypothesis is rejected if the results obtained are improbable under this hypothesis. If the results are not improbable, the hypothesis is accepted. The procedure of drawing such conclusion based on sample information is known as testing of hypothesis.

For the test of hypothesis, t- test has been used in this study with the help of simple correlation coefficient and the hypothesis is stated as following:

**Null Hypothesis (H<sub>0</sub>):** There is no significant relationship between the variables.

**Alternative Hypothesis (H<sub>1</sub>):** There is significant relationship between the variables.

#### (5) t – Statistics

t – Statistics is applied for the test of small sample, i.e. n is less than 30. The following formula is used to test an observed sample correlation co-efficient:

$$t = \frac{\bar{d}}{s/\sqrt{n}}$$

Where, t= paired t-test  
s= standard error  
n= number of observations  
d= different between two data

Where standard error(s) can be calculated by using following formula:

$$s = \sqrt{\frac{1}{n-1} \left( \sum d^2 - \frac{(\sum d)^2}{n} \right)}$$

This calculated value of t is then compared with its table value and if the calculated value is less than the table value, we accept the null hypothesis at the given level of significance and may infer that there is no relationship of statistical significance between the two variables. If the calculated value of t is greater than the

table value, we accept the alternative hypothesis and may infer that there is significance relationship between the variables.

#### **(6) Probable Error (PE)**

The probable error is used to measure the reliability and test of significance of correlation coefficient. It is calculated by the following formula.

$$P.E. = 0.6745 (1-r^2)/\sqrt{n}$$

Where,  $r$  = the value of correlation coefficient

$n$  = number of pairs of observations

P.E. is used in interpretation whether the calculated value of  $r$  is significant or not (if  $r < P.E.$ , it is insignificant i.e. no correlation, if  $r > 6P.E.$  it is significant & if  $P.E. < r < 6P.E.$  nothing can be concluded)

#### **(7) Trend Analysis**

This is the simplest and the easiest method of studying trend. In this method, points are plotted taking time along x-axis and the value of the variable under study along y-axis on a graph. Join these points by a free hand curve. Now a trend line is fitted such that the number of points above the trend line is nearly equal to the number of points below it.

#### **(8) Regression Analysis**

The literal meaning of the word "regression" is stepping or returning back to the average value. The term was first developed by Francis Galton in 1877. Regression is the statistical tool with the help of which we can estimate or predict the unknown value of one variable from the known value of any other variable. Assuming that the two variables are closely related, we can estimate the value of one variable from the value of another. The variable whose value is given is called "independent variable" and the variable whose value is to be predicted is called "dependent variable".

The regression equation of  $y$  on  $x$  is expressed as;

$$Y_c = a + b_x$$

Where,

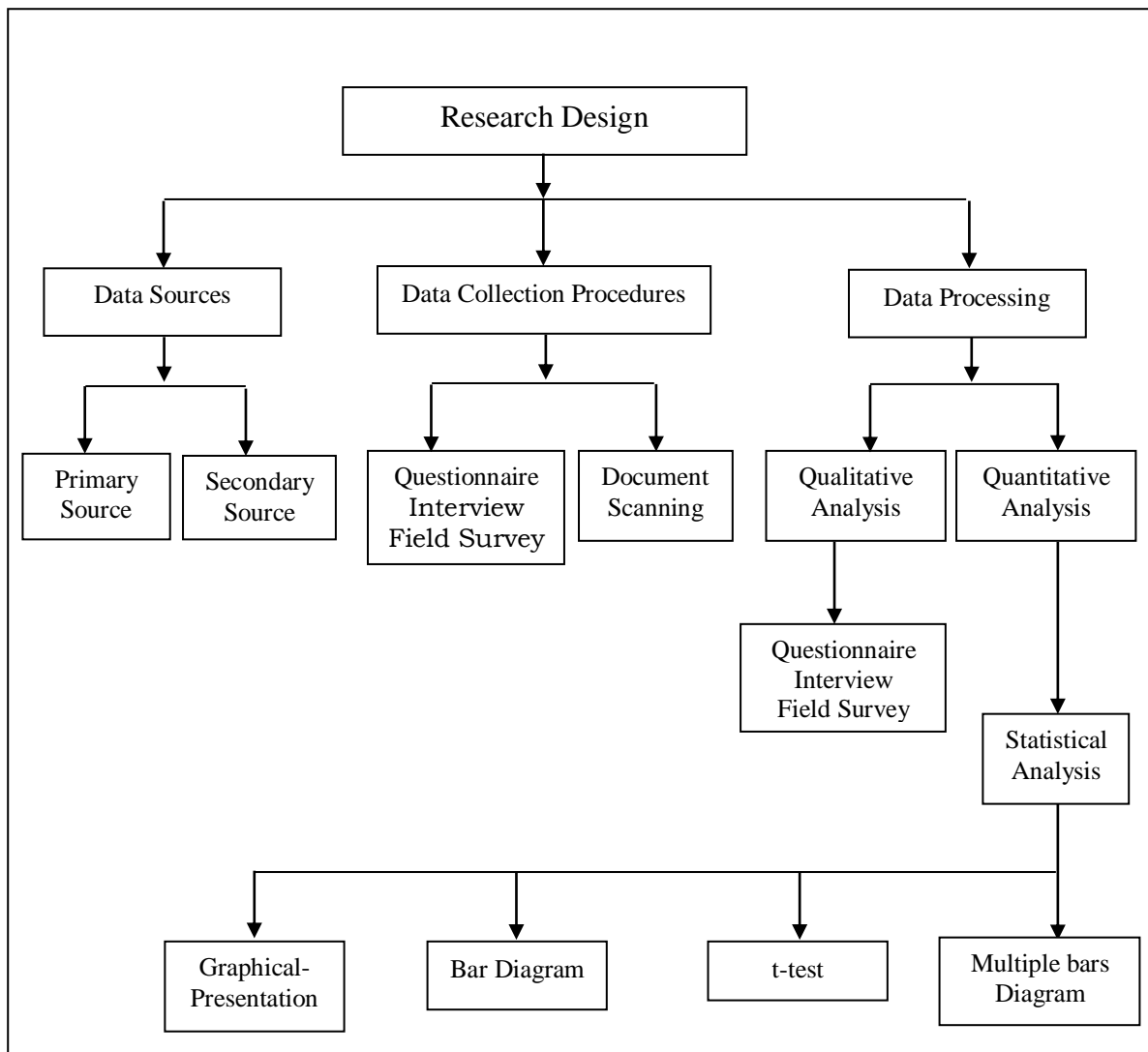
$Y_c$  = Value of  $y$  computed from the relationship for a given  $X$ .

“a” and “b” are constants and also known as the parameters of the line. The parameter “a” determines the distance of the line directly above or below the origin, while parameter “b” determines the slope of the line i.e. the change in y with per unit change in x. X is an independent variable and Y is dependent variable.

### (9) Various Graphs, charts and Diagrams

The pictorial representation of the data is known as chart and diagram. Graphs, Charts and Diagrammatic representation of data enable to delineate, make the data attractive and make the comparison easy. In this study different graphs, chart and diagrams have been presented to analyze the available data. Bar-diagram (Multiple, Percentage) Trend line has been shown in chapter four.

**Figure3.1**  
**Research methodology in single schematic diagram**



## **CHAPTER – IV**

### **DATA PRESENTATION AND ANALYSIS**

This chapter is dedicated towards the appropriate presentation and analysis of effectiveness of Value Added Tax in Nepal with reference to VAT Act 2053 and rules made under the same Act through definite course of research methodology. In order to achieve the above stated objective of the study and to make easier the understanding of the findings, both quantitative as well as qualitative data and information has been used and analyzed.

#### **4.1 Resource Gap in Nepal**

Like other developed countries in the world, Nepal has been suffering from resource constraint, mass poverty, and rapid growth of population, aggressive dependence on agriculture, subsistence living standard etc despite over four decades of planned development efforts.

In Nepal, the resource mobilization is still poor that does not cover the growing expenditure. Fiscal deficit is due to the continuously growing expenditure of the government instead of the low revenue performance in Nepal. That is why; country is facing the increasing burden of foreign loan. Widening trend of the different resource gap is shown in the table 4.1.

In the table (table no. 4.1), 1st resource gap of Rs.4137.6 million in fiscal year 1982/83 reached to Rs. 79743.30 million in the fiscal year 2009/10. It is continuously in increasing trend. Resource gap was decreased from the fiscal year 1991/92 to fiscal years 1994/95. In these fiscal years, total revenue was increased in greater percentage than expenditure, so resource gap was decreased. 2<sup>nd</sup> Research gap (after considering foreign grants) was Rs.3047.5 in the starting year and further widen up to Rs. 41197.4 million in fiscal year 2009/10. It was decreased as compared to previous fiscal year because the foreign grant of amounting Rs. 38545.9 was received in the fiscal year 2009/10 that was higher than that of previous year. It was also decreased in the fiscal year 1989/90 by the 141.10 million than the previous year and also decreased in the fiscal year 1993/94. The government takes internal and external loan to meet deficit finance. Foreign loan had been taken amounting Rs.985.80 million in the fiscal year 1982/83 and Rs. 11223.4million in 2009/10. After foreign loan financing, 3<sup>rd</sup>

resource gap was Rs.2061.7 million in the fiscal year 1982/83 and which was increased to Rs. 29974.0 million in the fiscal year 2009/10. In the fiscal year 2009/10, the foreign loan was the highest as compared to previous year. Hence third resource gap was decreased by Rs.9861.80 million even though the first resource gap was increased by Rs.3555.80. Similarly in 2000/01, maximum foreign loan was taken in comparison to other years, so resource gap was decreased in this fiscal year. The resource gap (after considering foreign loan) was in fluctuating trend. The increasing resource gap indicates that it is necessary to mobilize additional domestic resources. Ultimate and the best measure to fill up the resource gap are to increase public revenue through effective tax system.

**Table 4.1**  
**Resource Gap in Nepal**

(Rs. In Millions)

<b>Fiscal Years</b>	<b>Total Expenditure (A)</b>	<b>Total Revenue (B)</b>	<b>Resource Gap (1<sup>st</sup>) (C)</b>	<b>Foreign Grants (D)</b>	<b>Resource Gap (2<sup>nd</sup>) (E)</b>	<b>Foreign Loan (F)</b>	<b>Resource Gap (3<sup>rd</sup>) (G)</b>
1991/92	26418.2	13512.7	13905.5	2164.8	10655.1	6816.9	4444.8
1992/93	30897.7	15148.4	15749.3	1643.8	11261.7	6920.9	5035.1
1993/94	33597.4	19580.8	14016.6	3793.3	11956.0	1963.6	2459.4
1994/95	39060.0	24575.2	14484.8	2393.6	11623.0	7312.3	3235.4
1995/96	46542.4	27893.1	18649.3	3937.1	10547.7	9463.9	4360.3
1996/97	50723.7	30373.5	20350.2	4825.1	13824.2	9043.6	5318.3
1997/98	56118.3	32937.9	23180.4	5988.3	14361.9	11054.5	6723.3
1998/99	59579.0	37251.0	22328.0	5402.6	17777.8	11852.4	6139.0
1999/00	66272.5	42893.8	23378.7	4336.6	17991.4	11812.2	5854.8
2000/01	79835.1	48893.6	30941.5	5711.7	17667.0	12044.0	12144.1
2001/02	80072.3	50445.5	29626.8	6753.1	24188.1	7698.7	15242.0
2002/03	84006.1	56229.8	27776.3	6686.1	22940.7	4546.4	11880.8
2003/04	89442.6	62331.0	27111.6	11339.1	16437.2	7629.0	8199.2
2004/05	102560.4	70122.7	32437.7	11283.4	15828.2	9266.1	8780.4
2005/06	110889.2	72282.1	38607.11	14391.2	18046.5	8214.3	16565.3
2006/07	133604.6	87717.5	45887.1	15800.80	30086.3	10053.50	20032.80
2007/08	161350.0	107625.0	53725.0	20652.8	33072.2	9035.6	24036.6
2008/09	219662.0	143474.5	76187.5	26382.8	49804.7	9968.9	39835.8
2009/10	259689.1	179945.8	79743.30	38545.9	41197.4	11223.4	29974.0

Source: Economic Survey, 2010/11, Ministry of Finance, GON

## 4.2 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 people, can be divided 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 indirect tax. And the revenue received by the government in form of postal service charge, fees fines and forfeiture etc are non-tax revenues. 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 86% and non-tax revenue is only about 13 % in relative manner. The structure can see in the Table 4.2.

**Table 4.2**  
**Revenue Trend in Nepal**

(Rs. in Millions)

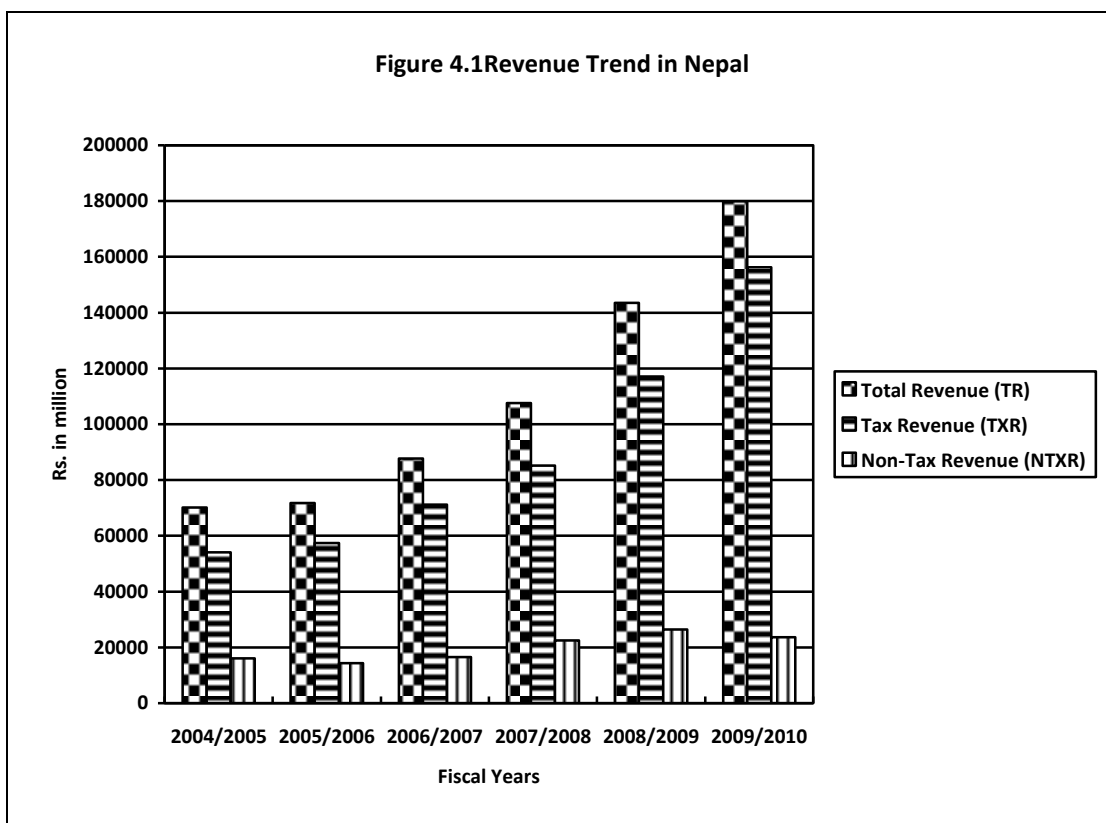
<b>Fiscal Year (FS)</b>	<b>Total Revenue (TR)</b>	<b>Tax Revenue (TXR)</b>	<b>Tax Revenue as % of TR</b>	<b>Non-Tax Revenue (NTXR)</b>	<b>Non-tax Revenue as % of TR</b>
1991/1992	13512.60	9875.60	73.08	3637.10	26.92
1992/1993	15148.40	11662.50	76.99	3485.90	23.01
1993/1994	19580.80	15371.50	78.50	4209.40	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	48893.6	38865.1	79.5	10028.5	20.5
2001/2002	50445.5	39330.6	78.0	11114.9	22.0
2002/2003	56229.8	42586.9	75.7	13642.9	24.3
2003/2004	62331	48173	77.3	14158.0	22.7
2004/2005	70122.7	54104.7	77.2	16018.0	22.8
2005/2006	71733.1	57430.4	80.1	14302.7	19.9
2006/2007	87711.2	71126.73	81.1	16584.5	18.9
2007/2008	107622.5	85155.5	79.1	22467.0	20.9
2008/2009	143474.5	117051.9	81.6	26422.6	18.4
2009/2010*	179945.80	156294.90	86.86	23650.90	13.14

*Source: Annual Report 2008/2009, Inland Revenue Department*

*Economic Survey Report 2010/2011, MOF, GON*

*\*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 the implementation of VAT. 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 up to 2005/06, Which proves that tax revenue increased in amount where as 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. The contribution of tax revenue is gradually increasing in recent years with contribution of more than 80 %. The contribution of non tax revenue to the total revenue is gradually decreasing. The contribution of tax revenue in the fiscal year 2009/10 was 86.86% while that of non-tax revenue is only 13.14 %. Hence the contribution of tax revenue is significant in the later years which can be depicted by the following diagram as well.



### 4.3 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 customers on 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 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 25% of total tax and contribution of indirect tax is remarkably higher than direct tax which is almost 75% of total tax revenue. The table below shows the structure of total tax revenue.

**Table 4.3**  
**Structure of Total Tax Revenue**

(Rs. in Millions)

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	38865.1	10159.4	26.1	28705.7	73.9
2001/2002	39330.6	10597.5	26.9	28733.1	73.1
2002/2003	42586.9	10105.7	23.7	32481.2	76.3
2003/2004	48173	11912.6	24.7	36260.4	75.3
2004/2005	54104.7	13071.8	24.2	41032.9	75.8
2005/2006	57430.4	13968.1	24.3	43462.3	75.7
2006/2007	71126.73	18980.29	26.7	52146.44	73.3
2007/2008	85155.5	23087.7	27.1	62067.8	72.9
2008/2009	117051.9	34320.7	29.3	82731.2	70.7
2009/2010*	156294.90	41750.15	26.71	114544.75	73.29
2010/2011	172777.91	48655.33	28.16	124122.58	71.84

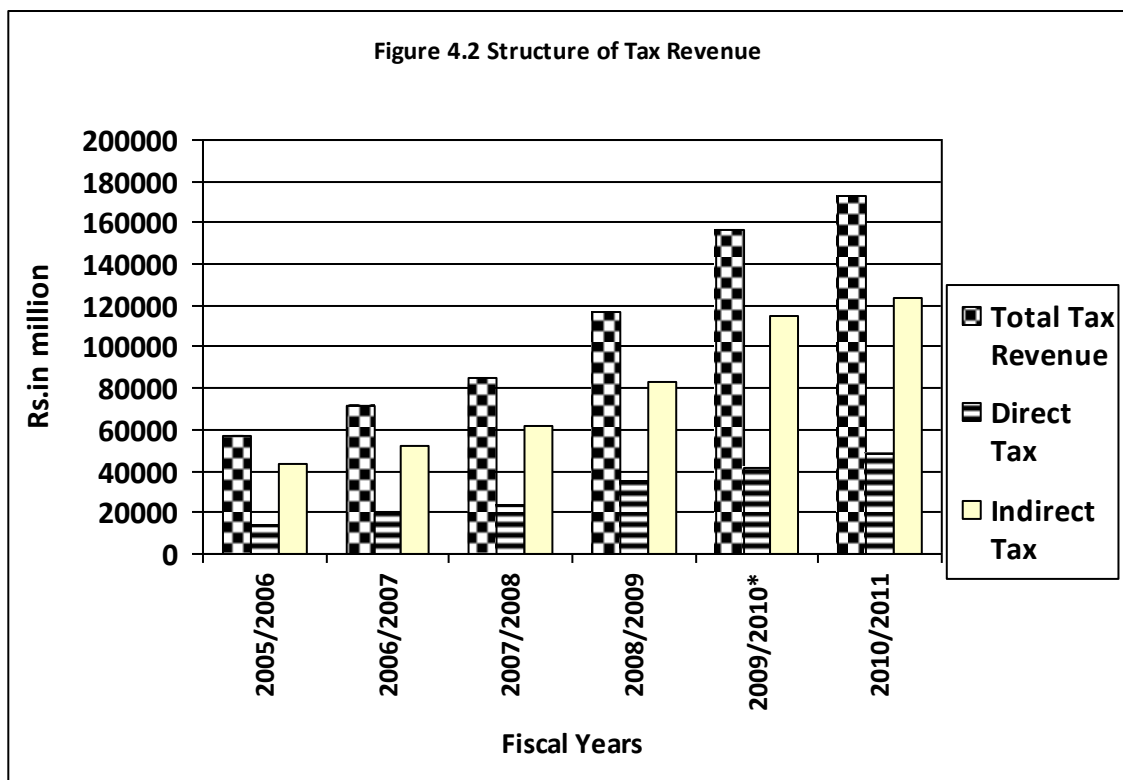
*Source: Annual Report 2010/2011, Inland Revenue Department*

*Economic Survey 2009/2010, MOF, GON*

*\*Note: VAT Implementation Year*

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, from the fiscal year 2006/2007, it suddenly had started picking up once again but in an insignificant percentage of only 26.69 reaching 29.30 percentage in 2008/09 with reverse impact on the indirect tax revenue standing at 73.3% in 2006/07 and coming down to 70.7% in the year 2008/09, about 2% falling below the figure of 2006/07. The contribution of direct tax to total tax revenue increased to 29.30 %, 26.71% & 28.16 % in the years 2008/09 to 2010/11 respectively. Similarly contribution of indirect tax remained above 70 % from 2006/07 to 2010/11. This can be better presented in the following bar diagram presented below:



## 4.4 Current VAT situation in Nepal

**Table 4.4**  
**Current VAT situation in Nepal**

Particulars	2005/06	2006/07	2007/08	2008/09	2009/10
VAT Revenue (Rs. In millions)	21615.40	26704.18	29816.00	39700.92	54920.86
VAT Growth Rate (Percent)	14.40	23.50	11.70	33.15	38.34
VAT share on Total Tax (Percent)	37.64	37.54	35.01	33.92	35.14
VAT share on Total Revenue (Percent)	30.13	30.45	27.70	27.67	30.52
VAT Ratio to GDP (Percent)	3.59	3.95	3.94	4.37	5.18

*Source: Economic Survey Report 2009/10*

In F/Y 2005/06, VAT revenue increased by 14.40 percent. The effect of upward revision in VAT rate from the existing 10 percent to 13 percent accounted for such a low growth of VAT revenue in 2005/06. Despite the lower growth rate of VAT in 2005/06, its share on total tax revenue and total revenue is highest amongst the other taxes. In 2005/06, VAT occupied 37.6 percent of total tax revenue and 30.10 percent of total revenue. In fiscal year 2006/07, the growth rate of Vat increased to 23.50 % .Again the VAT growth rate decreased to 11.70% in 2007/08 but its contribution to total tax & total revenue remained consistent. The ration of VAT to GDP also remained consistent with 3.94 %. VAT growth rate increased to 33.15 % & 38.34 % in the fiscal years 2008/09 & 2009/10 respectively. This shows improvement in VAT collection. Ratios of VAT to GDP were 3.59, 3.95, 3.94 & 4.37 in fiscal years 2005/06 to 2008/09 respectively. The contribution of VAT to GDP increased to 5.18 in F/Y 2009/10. The trend of VAT collection is increasing in later years.

## 4.5 VAT Registration Status

Registration is a preliminary step in the whole process of the VAT system and is an important tool towards evaluation of success or failure of implementation aspects of VAT. The threshold limit of VAT registration used to be Rs. 1 million previously. But now, it has been changed to Rs. 2 million. All tax payers whose taxable transactions stand above Rs. 2 million per annum are compulsorily required to register in 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 are 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.

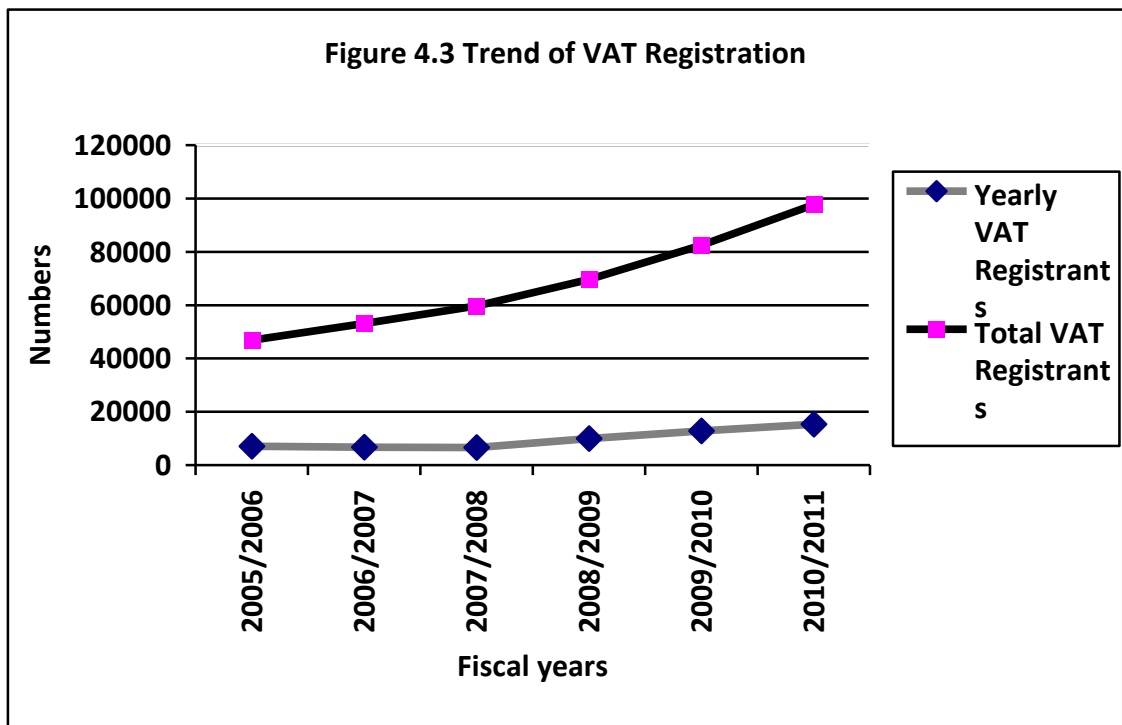
**Table 4.5**  
**Year-wise number of VAT Registrants**

<b>Fiscal Year</b>	<b>No. of VAT Registrant</b>	<b>Cumulative Total</b>	<b>Rate of Increase (%)</b>
2005/2006	7055	46831	17.74
2006/2007	6703	53072	14.31
2007/2008	6635	59707	12.50
2008/2009	9946	69653	16.66
2009/2010	12780	82433	18.35
2010/2011	15300	97733	18.56

*Source: Annual Report 2008/2009 & 2010/2011, Inland Revenue Department*

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 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. 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 exceeds certain amount. This seems to have compelled them to register for VAT. However, the figure above shows that the trend is in the steady line with sporadic rise. The number of VAT registrants increased by 17 % in F/Y 2005/2006. VAT registration was in increasing trend but with decreasing rate from F/Y 2006 to 2008 which is mainly due to adverse situation of the country lacking adequate investment areas and shows that the new businesses are not being encouraged to come into existence. After F/Y 2008/2009 the VAT registration increased by 16.66 %, 18.35 % & 18.56 % respectively in years 2008/09 to 2010/11. This has shown the increasing trend of VAT registration in present years. This can be better presented in the diagram below



#### 4.6 VAT Cancellation (Deregistration)

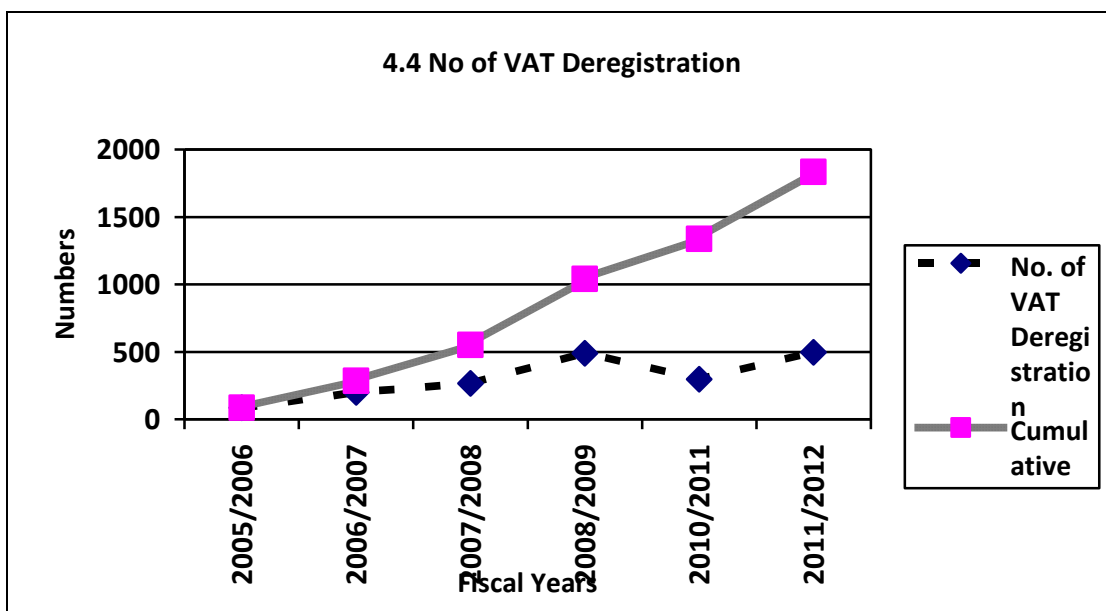
The table below shows the tax payers' trend of canceling registration from VAT.

**Table 4.6**  
**Year-wise number of VAT Cancellation/Deregistration**

Fiscal Year	No. of Reg. Cancellers	% of Reg. Cancel
2005/2006	85	0.18
2006/2007	200	0.38
2007/2008	265	0.44
2008/2009	490	0.70
2010/2011	297	0.36
2011/2012	497	0.51

*Source: On site collection from Database of IT Section, Inland Revenue Department*

The above table depicts the data from the fiscal year 2005/2006 to 2011/2012. The percent of VAT deregistration to total VAT registration is less than 1 percent in the study period. According to above table the taxpayers who cancelled their registration in the fiscal year 2011/2012 were by far the most than those in the subsequent years, i.e. 497. This was followed by only 490 in F/Y 2008/2009. The percent of VAT deregistration to total VAT registration is 0.18 % in F/Y 2005/2006. But in the succeeding years the percent of VAT deregistration was gradually increasing except in F/Y 2010/2011. This can be depicted in the following figure as well.



#### 4.7 Non-Filers

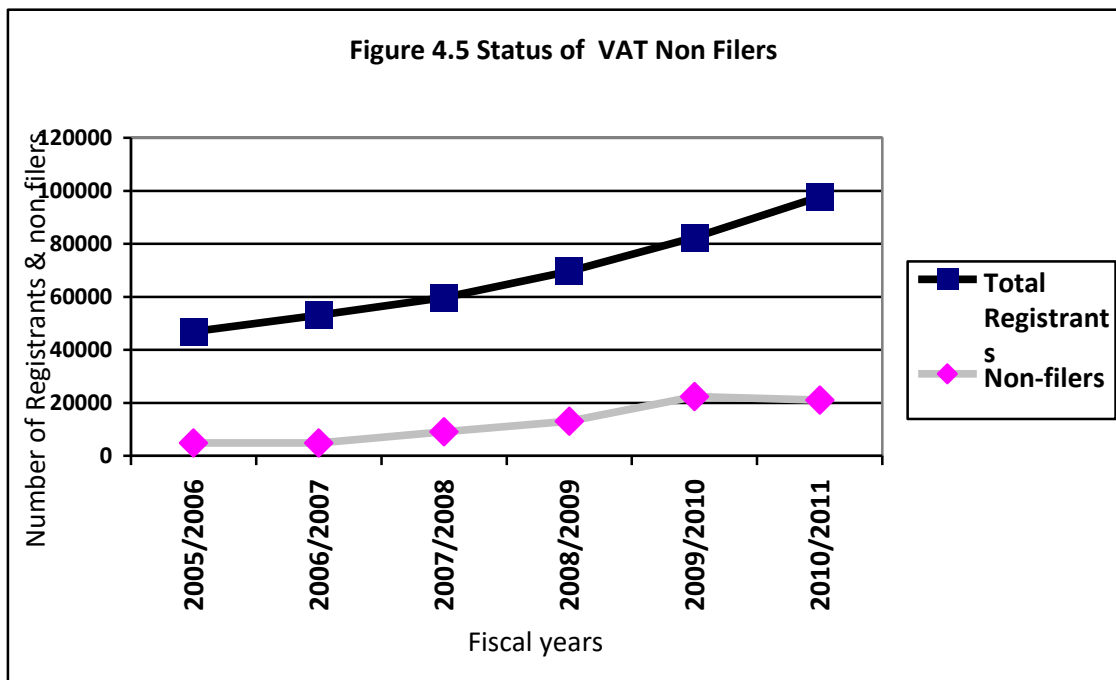
There is a legal provision in the VAT laws that all the registrants are required to submit their tax return after 25 days of completion of the tax period. It does not matter whether any transaction takes place within that period or not. It is necessary to submit the tax return within the specified time. 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 2005/2006 to 2010/2011.

**Table 4.7**  
**Year-wise Number of Non Filers**

Fiscal Year	Total Registrants	Non-filers	Percentage
2005/2006	46831	4879	10.42
2006/2007	53072	4879	9.19
2007/2008	59707	9050	15.15
2008/2009	69653	13040	18.72
2009/2010	82433	22341	27.10
2010/2011	97733	21012	21.50

*Source: Annual Report 2009/2010, Inland Revenue Department*

The above table shows that the portion of non filers is still high. If VAT registrant does not file returns in time, it increases the risk of filling of returns. Owing to it the transactions of VAT payer could not be identified clearly. The non filers of VAT were 10.42 % in the year 2005/2006. The percent decreased to 9.19 % in the year 2006/2007. Then after, the ratio continuously increased to 27.10% in the year 2009/10. The non filers are still prevailing above 20 % of the total registrations. There is still high challenge to VAT administration for decreasing the level of non filers in the days to come. The trend of non filers can be shown clearly in the following figure.



#### 4.8 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 facilitates 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 favorable 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 favorable 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 4.8 and Figure 4.6.

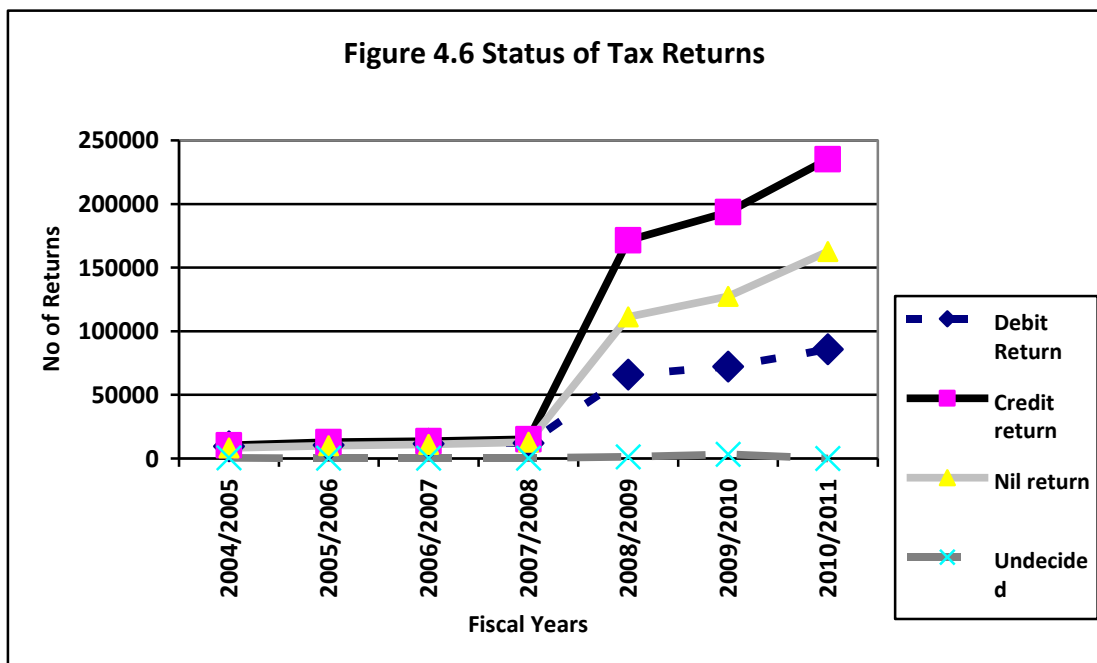
**Table 4.8**  
**Status of Tax Returns**

Fiscal Year	Debit		Credit		Nil		Undecided		Total
	No.	%	No.	%	No.	%	No.	%	
2004/2005	9478	32.2	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
2007/2008	12052	30.02	15050	37.49	12779	31.83	258	0.64	40139
2008/2009	66044	16.88	171413	46.82	111157	28.28	1197	0.31	349811
2009/2010	72233	18.22	193519	48.81	127390	32.13	3325	0.84	396467
<b>2010/2011</b>	85945	17.77	235192	48.62	162617	33.62	NA	NA	483754

*Source: Annual Report 2010/2011, Inland Revenue Department*

The table 4.8 reveals 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 2004/2005, the ratio of debit return to the total return is 32.20% whereas the credit return stood at 36%. The nil return in that particular period was 29% and the undecided percentage was 1.80%. From then onwards, the figure just seemed to rise consistently up to F/Y 2007/2008. After F/Y 2007/2008 the ratio of debit return decreased to 16.88%, 18.22% & 17.77 % respectively in the F/Y 2007/2008 to F/Y 2010/2011. Whereas ratio of credit return increased to 46.82 % in the F/Y 2008/2009 and remained consistent with slight increment in the F/Y 2009/2010 to F/Y 2010/2011. The ratio of nil return was 29 % in F/Y 2004/2005. It remained 30 % for two successive years. After F/Y 2008/2009 it increased by 1 percent each year reaching 33.62% in F/Y 2010/2011 except in F/Y 2008/2009. 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. This can better be made clear by the help of following diagram.



#### 4.9 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 4.9**  
**Revenue collection from VAT**

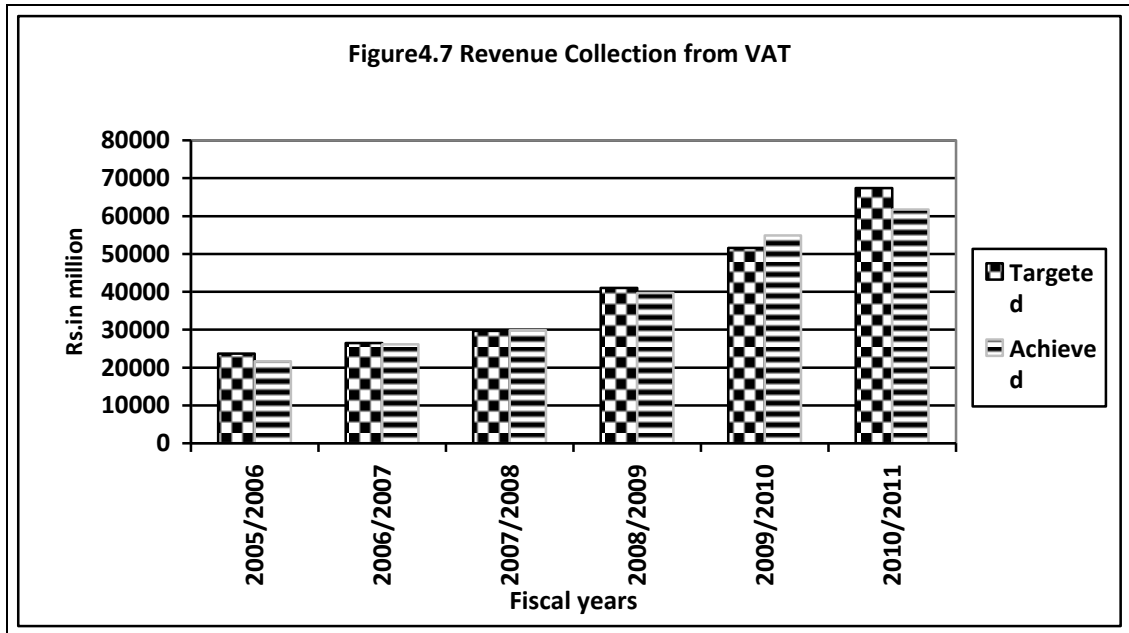
(Rs. in Millions)

<b>Fiscal Year</b>	<b>Targeted</b>	<b>Achieved</b>	<b>% Change</b>
2005/2006	23650	21613.04	(9)
2006/2007	26463	26095.60	(1)
2007/2008	29651.9	29815.70	1
2008/2009	41000	39700.92	(3)
2009/2010	51560	54920.86	6.52
2010/2011	67371.63	61692.85	(8.43)

*Source: Annual Report 2010/2011, Inland Revenue Department*

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 2005/2006 to 2010/2011 only. Similarly, in the fiscal year 2005/06 achieved VAT was Rs. 21613.04 million whereas targeted was Rs. 23650 million which is 9% less than targeted. However, by small margin of 1% only differ between targeted and achieved in the fiscal year 2006/07 and 2007/2008. In the fiscal year 2008/09, the revenue actually collected was less than targeted value by 3 %. In fiscal year 2009/2010 the VAT collection exceeds its target value by 6.52% .In figure, the targeted revenue for that period was Rs. 51560 million where as the collected revenue amounted to Rs. 54920.86, i.e. 6.52% more than the targeted one. But the boom period in revenue collection was to soon be followed by the depression when the 6.52% increase went far down to -8.43 in the fiscal year 2010/11 with the targeted revenue Rs. 67371.63 million and the actual collection only amounting to Rs. 61692.85 million. The above table shows that VAT collection is increasing year to year as compared to previous years but the collection is not according to the forecasting. This is because of lack of effectiveness of VAT administration in implementation of VAT system and the problem of valuation of customs. 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 below, for the last few years, comparatively the trend of revenue collection is good one although it is still in a fluctuating nature.



#### 4.10 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 neighboring 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 below.

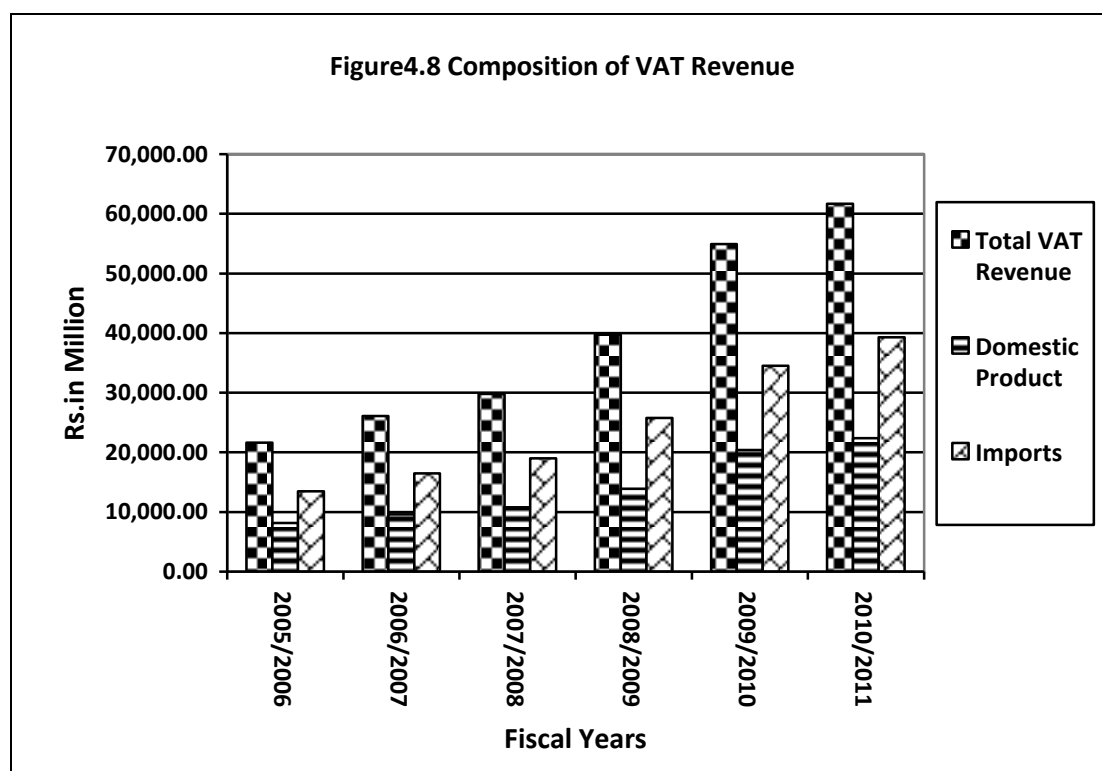
**Table 4.10**  
**Composition of VAT Revenue**

(Rs. in Millions)

Fiscal Year	Total VAT Revenue	Domestic Product		Imports	
		Amount	%	Amount	%
2005/2006	21,613.04	8150.5	37.71	13,462.54	62.29
2006/2007	26,095.60	9631.33	36.91	16,464.27	63.09
2007/2008	29,815.70	10808.24	36.25	19,007.46	63.75
2008/2009	39,700.92	13918.49	35.06	25,782.43	64.94
2009/2010	54920.86	20379.83	37.11	34541.03	62.89
2010/2011	61692.84	22386.28	36.29	39306.57	63.71

*Source: Annual Report 2010/2011, Inland Revenue Department*

In fiscal year 2005/06, share of domestic and imported VAT revenue in total revenue were 37.71% and 62.29% respectively while in the fiscal year 2006/07 were 36.91% to 63.09%. In the fiscal year 2010/11, 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.



#### 4.11 Contribution 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 4.11**  
**Contribution of VAT Revenue to GDP**

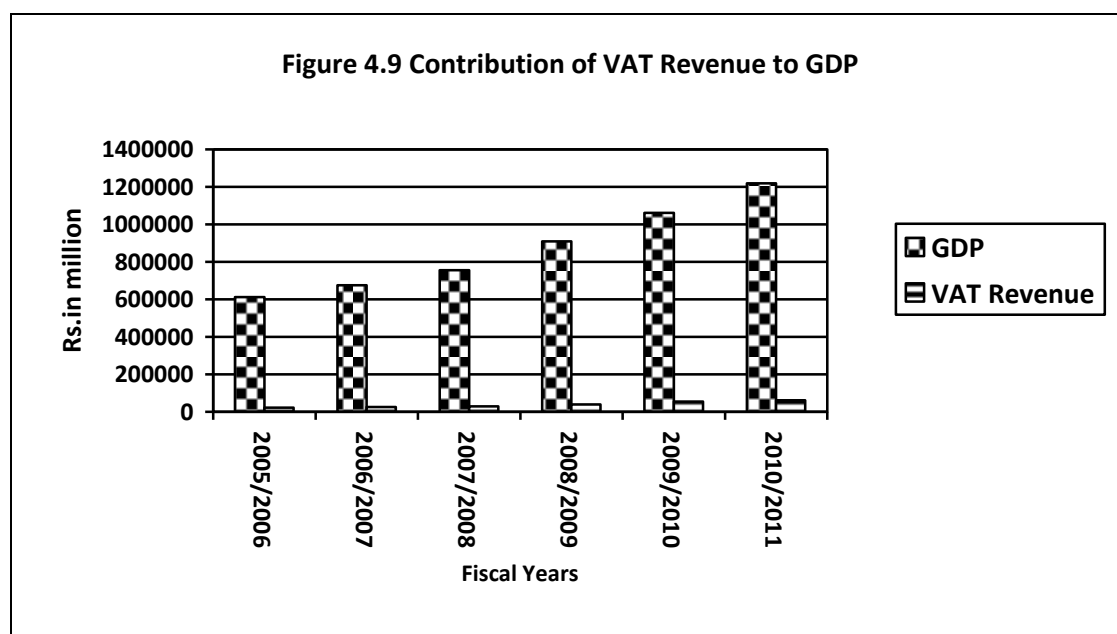
(Rs. in Millions)

<b>Fiscal Year</b>	<b>GDP (At basic price)</b>	<b>VAT Revenue</b>	<b>% of VAT on GDP</b>
2005/2006	611118.00	21613.04	3.54
2006/2007	675859.00	26095.60	3.86
2007/2008	755257.00	29815.70	3.95
2008/2009	909309.00	39700.92	4.37
2009/2010	1060881.00	54920.86	5.18
2010/2011	1219116.00	61692.85	5.06
Average	871923.33	38973.16	4.47

*Source: Economic Survey 2010/2011, MOF. Macroeconomic Indicators of Nepal 2010, Annual IRD report 2067/2068*

Above table reveals that share of VAT revenue in GDP is 4.47% in an average through the analysis period. The contribution made through VAT to GDP is very low. In fiscal year 2005/2006, total amount Rs. 21613.04 million was collected as VAT which was only 3.54% 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. 5.18% was recorded in the fiscal year

2009/2010 with VAT revenue amounting to Rs. 54920.86 million. 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. This can be better presented with the help of following bar diagram.



#### 4.12 Contribution of VAT Revenue to 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 4.12.

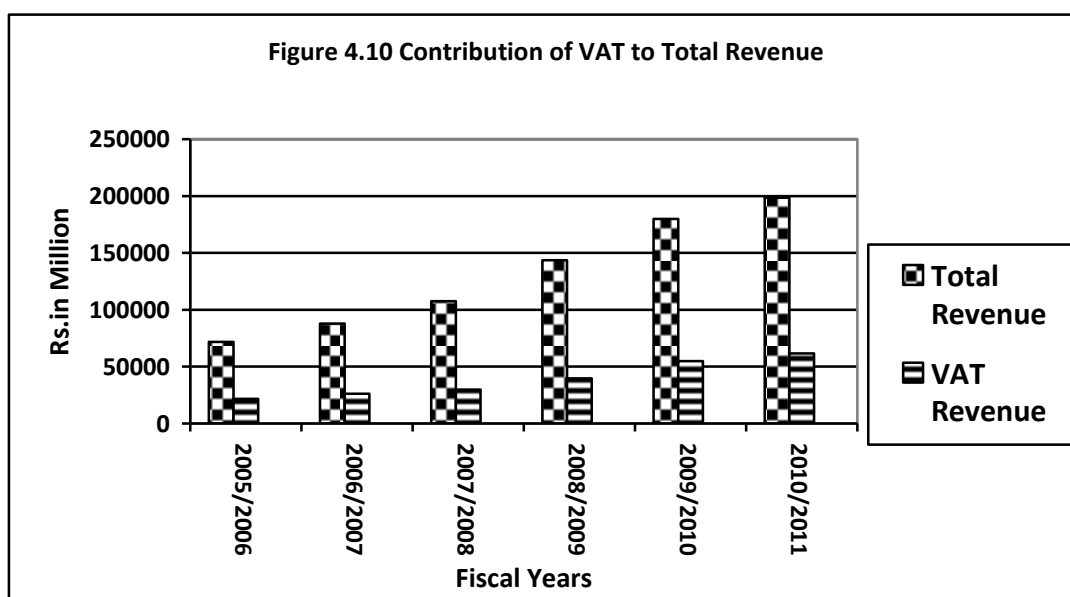
**Table 4.12**  
**Contribution of VAT Revenue to Total Revenue**

(Rs. in Millions)

Fiscal Year	Total Revenue	VAT Revenue	% on Total Revenue
2005/2006	71733.10	21613.04	30.13
2006/2007	87711.20	26095.60	29.75
2007/2008	107622.50	29815.70	27.70
2008/2009	143474.50	39700.92	27.67
2009/2010	179945.80	54920.86	30.52
2010/2011	198376.32	61692.85	31.10
Average	131477.24	38973.16	29.64

Source: Economic Survey 2010/2011 MOF, Annual Reports 2005/2006 to 2010/2011

Above table reveals an average contribution of VAT to the total revenue is 29.64%. In the fiscal year 2005/2006, its contribution was 30.13%, it kept decreasing in the following years ending up with 27.67% in the fiscal year 2008/2009. Then after, the contribution again started increasing from F/Y 2009/2010. The contribution of VAT to Total Revenue reached to 31.10% in the fiscal year 2010/2011. The same figure can be better viewed in the following chart.



#### 4.13 Contribution of VAT Revenue in Total Tax Revenue

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

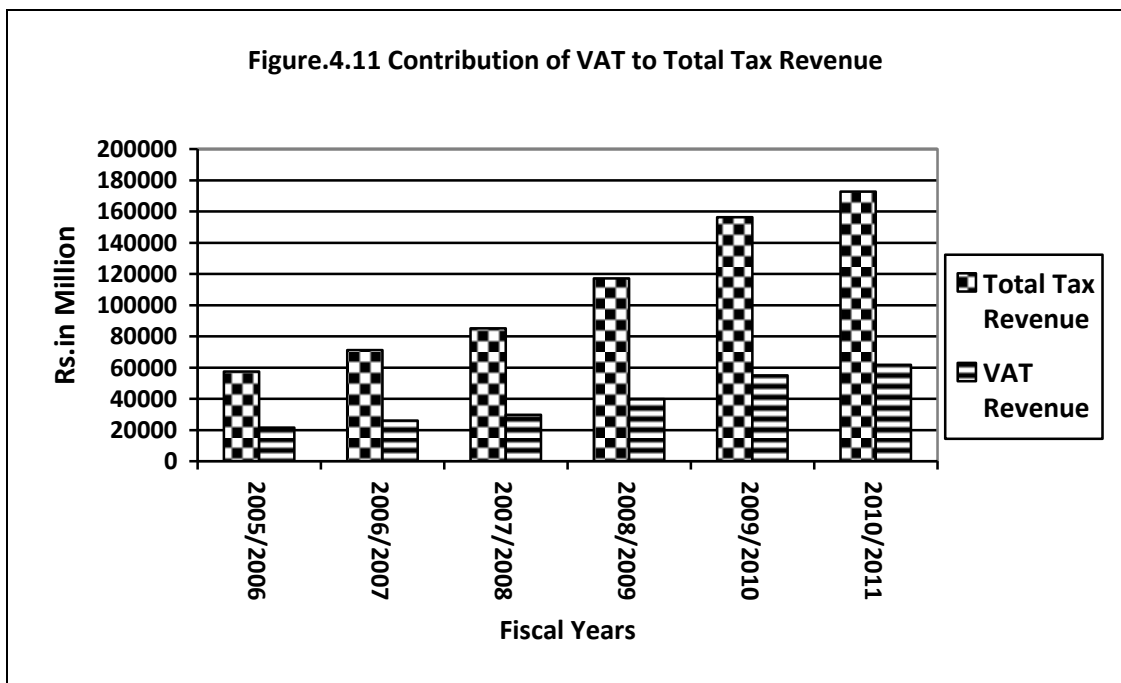
**Table 4.13**  
**Contribution of VAT Revenue to Total Tax Revenue**

(Rs. in Millions)

Fiscal Year	Total Tax Revenue	VAT Revenue	% of Total Tax Revenue
2005/2006	57430.40	21613.04	37.63
2006/2007	71126.73	26095.60	36.69
2007/2008	85155.50	29815.70	35.01
2008/2009	117051.90	39700.92	33.92
2009/2010	156294.90	54920.86	35.14
2010/2011	172777.91	61692.85	35.71
Average	109972.89	38973.16	35.44

*Source: Economic Survey Report 2010/2011 MOF, Annual Reports IRD2005/2006-2010/2011*

The above table shows that there is high share of VAT in total revenue in Nepal. In the fiscal year 2005/06, the percentage of VAT in total tax revenue is 37.63% .The share of VAT to Total Revenue went decreasing till F/Y 2008/2009 with 33.92%. After fiscal year 2009/2010, it increased to 35.14% and remained constant for two years. The average contribution of VAT to the total revenue is 35.44% which is about one third of the total tax revenue. This proves that Nepalese tax revenue without the inclusion of VAT is unthinkable.



#### 4.14 Contribution of VAT Revenue to Total Indirect Tax Revenue

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

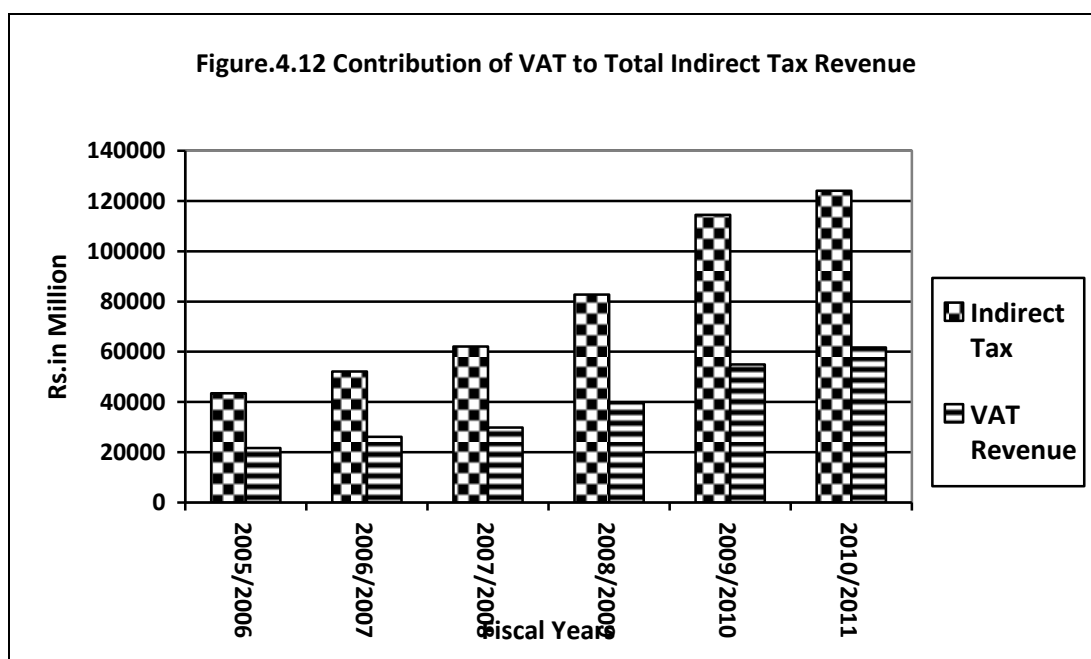
**Table 4.14**  
**Contribution of VAT to Total Indirect Tax Revenue**

(Rs. in Millions)

Fiscal Year	Indirect Tax	VAT Revenue	% of Total Tax Revenue
2005/2006	43462.3	21613.04	49.73
2006/2007	52146.44	26095.60	50.04
2007/2008	62067.8	29815.70	48.04
2008/2009	82731.2	39700.92	47.99
2009/2010	114544.75	54920.86	47.95
2010/2011	124122.58	61692.85	49.70
Average	79845.85	38973.16	48.81

*Source: Economic Survey Report 2010/2011 MOF, Annual Reports IRD2005/2006-2010/2011*

The above table shows that there is around 50% share of VAT in total indirect tax revenue in Nepal. In the fiscal year 2005/2006, the percentage of VAT on total indirect tax revenue is 49.73%. The share of VAT on Total Indirect Tax increased to 50.04% in F/Y 2006/2007 but it decreased by 2 % in F/Y 2007/2008. Then, it decreased to 47.99 % in F/Y 2008/2009 and remained constant for F/Y 2008/2009. In F/Y 2010/2011 the contribution increased to 49.70 %.The average contribution of VAT to the total revenue is 46.35% which is about half of the total indirect tax revenue. This proves that the effectiveness of VAT on contribution to Total Indirect Tax Revenue is dominant and remarkable.



## 4.15 Structural Analysis of Internal VAT

VAT collection from internal sources reached Rs. 22386.27 million in F/Y 2010/2011 which was increased 10 % more as compared to last fiscal year. The share of VAT from internal sources constituted 36 % to total VAT collection. This shows that the share of internal VAT is gradually increasing over the years but the ratio was decreased than last year's ratio due to slowdown of internal economic parameters of the country. The contribution of VAT mainly from manufacturing, trade and commerce, contract and consultancy, tourism and other services are shown as follows:

**Table 4.15**  
**VAT Collection from Internal Sources**

(Rs. in millions)

Sources	2007/2008	2008/2009	2009/2010	2010/2011	Total	Average	%
Manufacturing	3430.13	4057.89	6016.12	6768.3	20272.44	5068.11	30.48
Trade & commerce	1916.11	2371.19	3299.2	4251.74	11838.24	2959.56	17.80
Contract & consultancy	1300.38	1603.24	2192.45	3115.28	8211.35	2052.84	12.35
Tourism	732.11	836.39	938.86	1116.89	3624.25	906.06	5.45
Other services	3731.01	5049.78	6649.86	7134.05	22564.70	5641.18	33.93
Total	11109.74	13918.49	19096.5	22386.3	66510.98	16627.75	100.00

*Source: Annual Reports IRD2007/2008- 2010/2011*

In fiscal year 2007/2008, internal VAT collection was Rs.11109.74 million which was 15 % more than last year's collection. While analyzing the VAT collection from different internal sources, VAT collection from manufacturing contributes 31 %. Similarly the contribution from other services was 34 % with Rs.3731.01millions. The contribution from tourism, trade & commerce and contract & consultancy were 7 %, 17% and 12 % respectively. The trend showed that VAT administration was not effective with regard to the trade and commerce.

In fiscal year 2008/2009, VAT collection from internal sources was Rs.13918.49 millions. That was 25 % higher than last year's collection. The contribution of manufacturing to internal VAT was 29% while that of other services

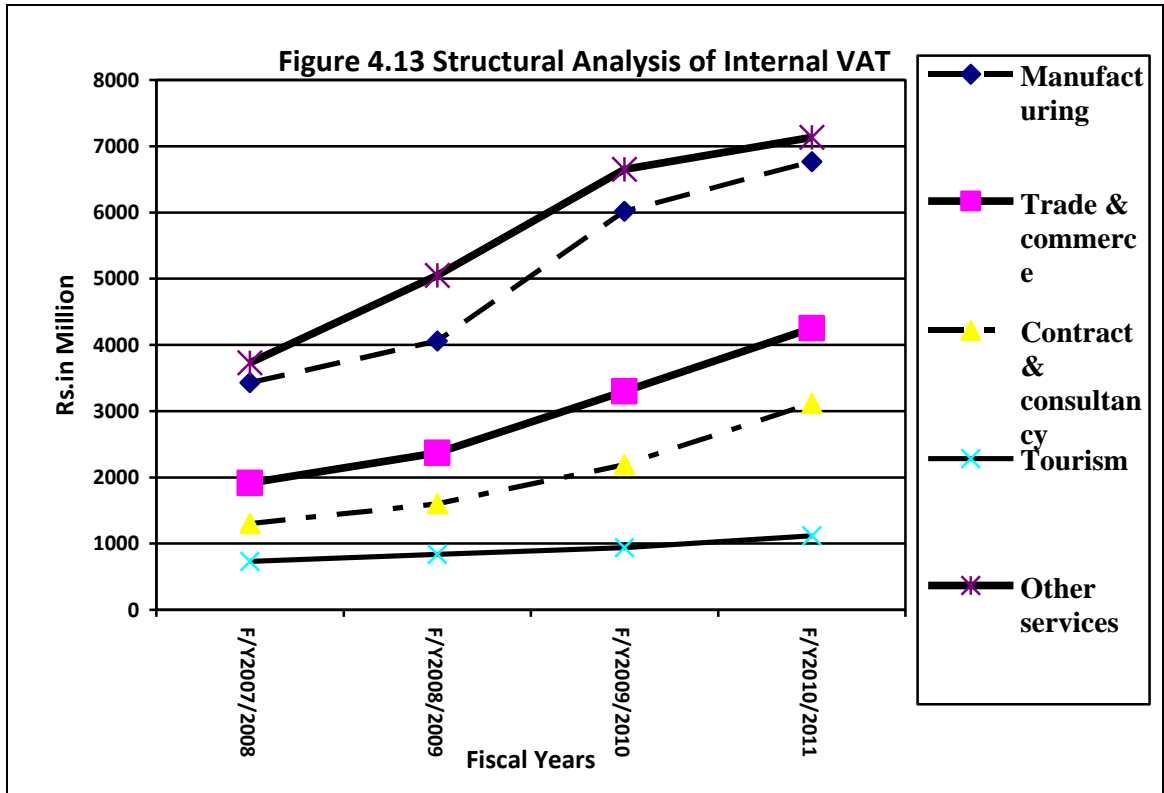
was 36%. The contribution from tourism, trade & commerce and contract & consultancy were 6 %, 17% and 12 % respectively. The collection patterns showed that trade & commerce did not show encouraging increase. There was still need for improvement in those areas.

In fiscal year 2009/2010, VAT collection from internal sources was Rs.19096.49 million. That was 37% higher than last year's collection. The trend of internal VAT was increasing due to increase in general price level and positive impact of improvement in capacity of tax administration. While analyzing the collection from internal resources, VAT collection from manufacturing, trade and commerce, contract and consultancy, tourism and other services were increased by 48,39,37,12 & 32 % respectively as compared to last year. Highest increment was in manufacturing and least increment was in tourism.

Internal VAT collection was increased by 10 % in fiscal year 2010/2011. But the share of internal VAT decreased as compared to last year. VAT collection from manufacturing, trade and commerce, contract and consultancy, tourism and other services were increased by 14,30,42,19 & 7 % respectively as compared to last year. In this fiscal year, the highest increase was in contract & consultancy while least increase was in other services.

The average contribution of manufacturing, trade and commerce, contract and consultancy, tourism and other services to internal VAT collection were 30.48 %, 17.80%, and 12.35 %, 5.45% and 33.93% respectively.

To sum up, the trend of VAT collection from internal sources is increasing over the years but in decreasing rate. The highest contribution to internal VAT is from other services. Second largest contributor is manufacturing. Though Nepal has strong feasibility and possibility of growth in Tourism Industry, the contribution from it is the least one. Although there is growth in tourism and construction activity, the low VAT collection in these areas left ground for investigation. Similarly there were higher increment in import trading but the VAT collection from trade & commerce was not satisfactory.



#### 4.16 Structural Analysis of External VAT

VAT collection from external sources reached Rs. 39306.57 million in F/Y 2010/2011 which was increased 14 % more as compared to last fiscal year. The share of VAT from external sources constituted 64 % to total VAT collection. This shows that the share of external VAT is gradually increasing over the years but in negligible rate. The contribution of External VAT mainly from import is shown as follows:

**Table 4.16**  
**VAT Collection from External Sources**

(Rs. in millions)

Sources	2006/2007	2007/2008	2008/2009	2009/2010	2010/2011
Import	16464.27	19007.46	25782.43	34541.03	39306.57

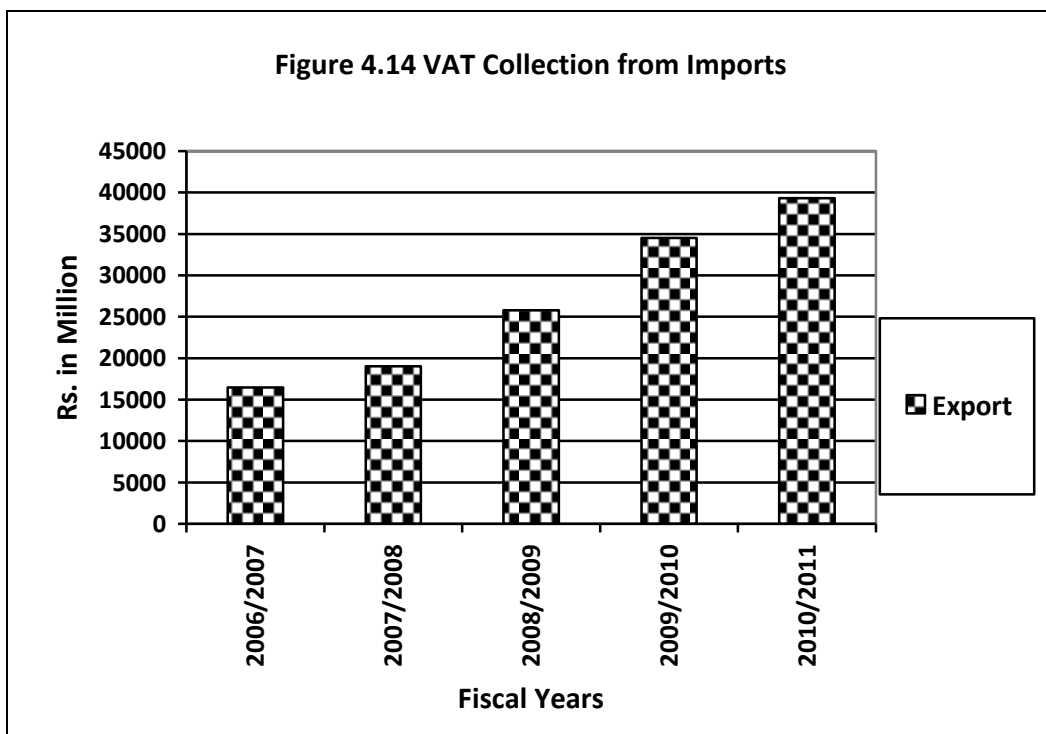
*Source: Annual Reports IRD2006/2008- 2010/2011*

In fiscal year 2006/2007, VAT collection from import was Rs.16464.27 million. Similarly in fiscal year 2007/2008, VAT collection from external sources was

Rs.19007.46 millions. That was 15 % higher than last year's collection. The VAT collection from import were Rs.25782.43 and Rs.34541.03 millions respectively in fiscal years 2008/2009 and 2009/2010. VAT collections were increased by 36 % in F/Y 2008/2009 and by 34% in F/Y 2009/2010. There were tremendously increase in External VAT in fiscal years 2008/2009 and 2009/2010 due to increase in import business in Nepal, decrease in value of dollar currency and positive impact of effectiveness in tax administration.

In fiscal year 2010/2011 the VAT collection from import was Rs.39306.57 millions which was increased by 14 % as compared to last year's collection. The share of external VAT to Total VAT was 64 %.The share of external VAT increased by 1% as compared to last year.

To sum up, the trend of VAT collection from external sources is increasing over the years in increasing rate above 14 %. This shows effectiveness of tax administration. The share of external VAT is still higher than 63 % but the trend of it is almost constant with increase and decrease by 1 percent. There is perfectly negative correlation between share of internal VAT and external VAT because in F/Y 2010/11, one percent increase in share of internal led to one percent decrease in share of external VAT.



#### 4.17 Collection Ratio of Internal VAT and External VAT

The collection ratio of VAT from internal source and external sources is shown in the following table and diagram.

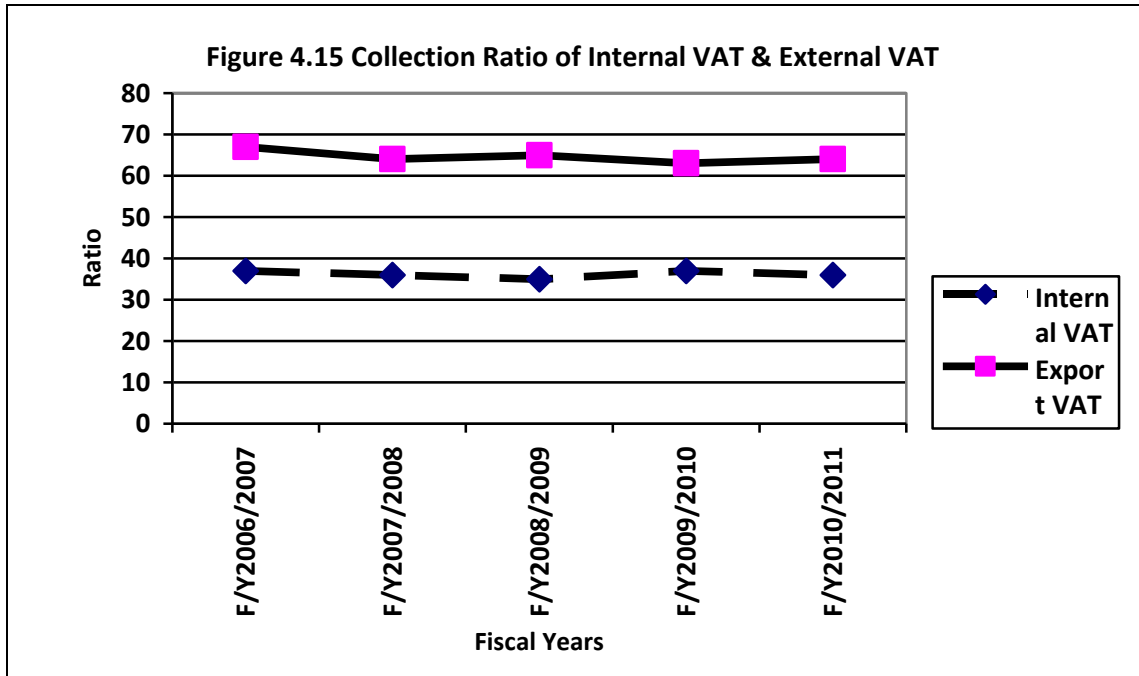
**Table 4.17**  
**Collection Ratio of Internal VAT and External VAT**

(Rs. in Millions)

Sources	2006/2007	2007/2008	2008/2009	2009/2010	2010/2011
Internal	9631.33	10808.24	13918.49	20379.83	22386.28
External	16464.27	19007.46	25782.43	34541.03	39306.57
Total VAT	26096.00	29815.70	397009.21	54920.86	61692.85
Internal/External Ratio	37:63	36:64	35:65	37:63	36:64

*Source: Annual Reports IRD2006/2008- 2010/2011*

The collection ratio of VAT from internal source and external sources was 36:64 in fiscal year 2010/2011. The ration was 37:63 in F/Y 2006/2007. Hence this showed that the ratios of internal & external VAT were similar over the study period of five year. There is perfectly negative correlation between ratio of internal VAT and External VAT. The ratio of internal VAT decreased by 1 % in fiscal years 2007/2008 , 2008/2009 and 2010/2011 which led to exactly 1% increase in ratio of external VAT in those fiscal years. Similarly the ratio of internal VAT increased by 2 % in fiscal year 2009/2010 which led to exactly 2% decrease in ratio of external VAT.

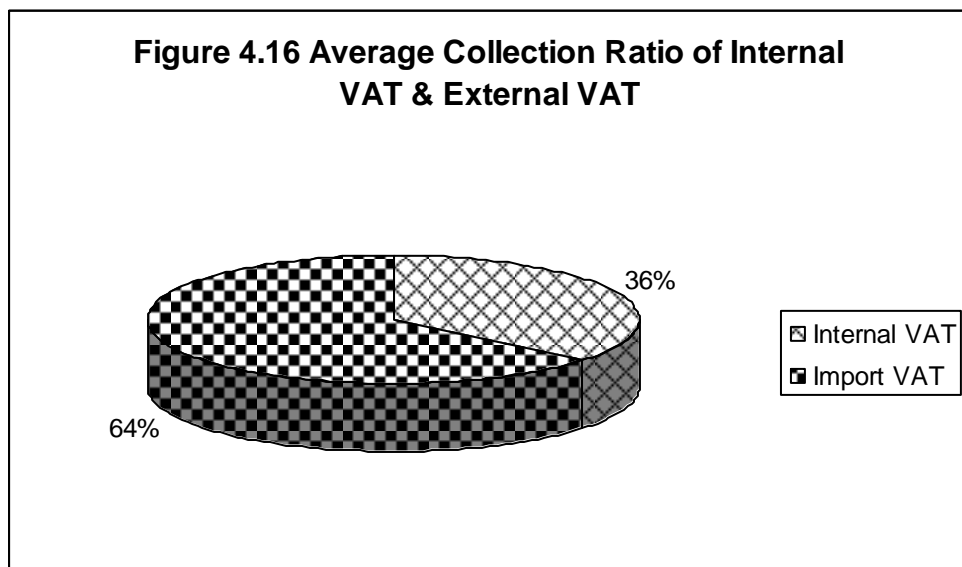


**Table 4.18**

**Average Collection Ratio of Internal VAT & External VAT**

(Rs. in Millions)

Sources	006/007	007/008	008/009	009/010	010/011	Average	Ratio
Internal VAT	9631	10808	13919	20380	22386	15424.83	36
Import VAT	16464	19008	25782	34541	39307	27020.35	64



The above diagram shows that average collection ratio of Internal VAT and External VAT over study period of 5 year was 36:64. Hence, Import constitutes 2/3 rd of VAT collection in Nepal.

#### **4.18 Empirical Study**

An empirical study was conducted to find out various aspects of Value Added Tax in the real world situation. In this study analysis about Value Added Tax has been done on the basis of information provided by various tax experts, tax administrators and taxpayers. The major tool used for this purpose is questionnaire method.

In this study questions were asked to 45 different individuals related to this field i.e. taxpayers, tax experts and tax administrators covering various aspects of Value Added Tax of Nepal. Information received from the respondents are tabulated and analyzed in the proper way. The following table shows the group and number of respondents

**Table 4.19**  
**Group of Respondents and Number**

<b>S.N</b>	<b>Group Of Respondents</b>	<b>Number</b>
1	Tax Experts	20
2	Expert Business Personnel	20
3	Taxpayers	10

#### **4.19 Results of Empirical Study**

##### **4.19.1VAT 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 cannot 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 for implementation of VAT 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 in implementation of VAT system in Nepal. To analyze the present VAT implementation, questions were asked and the result so obtained has been presented in the table as follows:

**Table 4.20**  
**Efficiency of Nepalese VAT Administration**

Alternatives	Respondents						Total	
	Tax Officials		Business Person		Consumers			
	No.	%	No.	%	No.	%	No.	%
Efficient	14	70	1	5	-	-	15	30
Inefficient	2	10	10	50	6	60	18	36
Needs Improvements	4	20	9	45	4	40	17	34
Total	20	100	20	100	10	100	50	100

*Source: Questionnaire*

According to table no.4.20, 36.00% view that present administration absolutely unable to handle VAT. However, 34.00% 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:

1. Past records reveal that the revenue administration has mostly failed to fulfill 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.
2. 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.
3. 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.

#### **4.19.2 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 4.21**  
**Best way to Increase Public Revenue through VAT**

Alternatives	Respondents						Total	
	Tax Officials		Business Person		Consumers			
	No.	%	No.	%	No.	%	No.	%
Increasing tax rate	2	10	-	-	-	-	2	4
Widening its coverage	14	70	15	75	6	60	35	70
Discouraging tax evasion	4	20	4	20	4	40	12	24
Others	-	-	1	5	-	-	1	2
Total	20	100	20	100	10	100	50	100

*Source: Questionnaire*

Table 4.21 shows that the best way to increase public revenue through VAT is to widen its coverage. That's because 70.00% of the total respondents are found to think along the same line. About 24.00% 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.

#### 4.19.3 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 4.22**  
**Habit of taking bills on Purchase**

Alternatives	Respondents						Total	
	Tax Officials		Business Person		Consumers			
	No.	%	No.	%	No.	%	No.	%
Yes on every purchase	10	50	5	25	-	-	15	30
Yes, on most of the purchase	10	50	13	65	1	10	24	48
Yes, but not regular	-	-	2	10	7	70	9	18
No, I never get any bill	-	-	-	-	2	20	2	4
Total	20	100	20	100	10	100	50	100

*Source: Questionnaire*

Table 4.22 shows that 50% of tax officials, 65% of business and 10.00% of consumers have the habit of taking bills on most of their purchases. In total 30.00% of people take bills on every of their purchases. About 18.00% 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. 4.00% 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.

#### 4.19.4 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 4.23**  
**Effective Media for VAT Education**

Alternatives	Respondents						Total	
	Tax Officials		Business Person		Consumers			
	No.	%	No.	%	No.	%	No.	%
Radio/TV	4	20	12	60	3	30	19	38
Newspaper	10	50	3	15	4	40	17	34
Booklets/Pamphlets	-	-	2	10	1	10	3	6
Wall Painting/Banner	4	20	1	5	1	10	6	12
Seminars	2	10	2	10	1	10	5	10
Total	20	100	20	100	10	100	50	100

*Source: Questionnaire*

The above table shows that 38.00% suggest radio and TV as the effective media for VAT education. Newspaper might be another source of education as suggested by 34.00% of VAT officials. About 6.00% 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.

#### 4.19.5 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 4.24**  
**Weaknesses in VAT Administration**

Alternatives	Respondents						Total	
	Tax Officials		Business Person		Consumers			
	No.	%	No.	%	No.	%	No.	%
Lack of expertise	8	40	2	10	4	40	14	28
Lack of trained Manpower	4	20	14	70	4	40	22	44
Corruption & bribing	-	-	4	20	2	20	6	12
Lack of physical infrastructure	6	30	-	-	-	-	6	12
Lack of sufficient field offices	2	10	-	-	-	-	2	4
Total	20	100	20	100	10	100	50	100

*Source: Questionnaire*

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 30 shows that 40% of tax officials attribute the lack of expertise to the weakness in administration. In total, 28.00% of people suggest the lack of expertise in VAT administration. About 44.00% point to the lack of trained manpower while 12.00% 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.

#### 4.19.6 Behavior of VAT Administrator towards Taxpayers

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

**Table 4.25**

**Behavior of VAT Administrator towards Taxpayers**

Alternatives	Respondents	
	Business Person	
	No.	%
Very helpful	3	15
Helpful	3	15
Very troublesome & Slow in their work	7	35
Disrespectful, treating badly	7	35
Total	20	100

*Source: Questionnaire*

The table 4.25 shows that about 30% of businessmen have the view that the VAT administrators are helpful. About 70% view that tax official's 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.

**4.19.7 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 4.26.

**Table 4.26**  
**Problems in VAT collection**

Alternatives	Respondents						Total	
	Tax Officials		Business Person		Consumers		No.	%
	No.	%	No.	%	No.	%		
Registration	4	20	6	30	3	30	13	26
Account Keeping	6	30	6	30	3	30	15	30
Billing	8	40	3	15	3	30	14	28
Tax refunding	2	10	5	25	1	10	8	16
Total	20	100	20	100	10	100	50	100

*Source: Questionnaire*

As shown in above table, about 30.00% believe that account keeping is the biggest problem in VAT collection. Among them 30% of tax officials, 30% of businessmen and 30.00% of consumers supported this alternative. Second greatest problem on VAT collection is billing. About 28.00 believe that billing is one of the problems. Total of 16.00% say that tax refunding is the biggest problem in collection of VAT in Nepal.

#### **4.19.8 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 4.27**  
**Problems in Account keeping**

Alternatives	Respondents						Total	
	Tax Officials		Business Person		Consumers			
	No.	%	No.	%	No.	%	No.	%
Illiteracy	4	20	2	10	2	20	8	16
Not used to a/c keeping	6	30	14	70	2	20	22	44
Rules & regulation still confusing	-	-	2	10	2	20	4	8
Tax evasion is difficult under VAT	10	50	2	10	4	40	16	32
Total	20	100	20	100	10	100	50	100

*Source: Questionnaire*

From the above table, it can be concluded that about 44.00% are not used to account keeping. This is supported by the views of 70% of Businessmen and 30% of tax officials. About 16.00 suggest that illiteracy is another problem.

#### **4.19.9 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 4.28**  
**Problems in Implementation of VAT**

Alternatives	Respondents						Total	
	Tax Officials		Business Person		Consumers			
	No.	%	No.	%	No.	%	No.	%
Adm. Incapability	2	10	5	25	1	10	8	16
Under Invoicing	4	20	1	5	2	20	7	14
Frequent change in Acts	2	10	4	20	1	10	7	14
Lack of Public Awareness	4	20	3	15	3	30	10	20
Lack of Long term Policy & strategy	4	20	3	15	1	10	8	16
Taxpayers unknown to VAT	4	20	4	20	2	20	10	20
Total	20	100	20	100	10	100	50	100

*Source: Questionnaire*

Table 4.28 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 16% consider administrative incapability as a hindrance to VAT implementation. Tax payers are oblivious to the term VAT itself.

## **4.20 Analysis of the Data with Various Statistical Tools**

### **4.20.1 Time Series Analysis**

#### **4.20.1.1 Trend Values of VAT & GDP**

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 behavior 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 2011-2012 to 2015-2016 to estimate whether there may be increase in the VAT/GDP ratio from the current average of 5.06%, 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 parameters of the analysis, computed in the Appendix III are as follows:  $a = 825717.81$   $b = 449267.13$

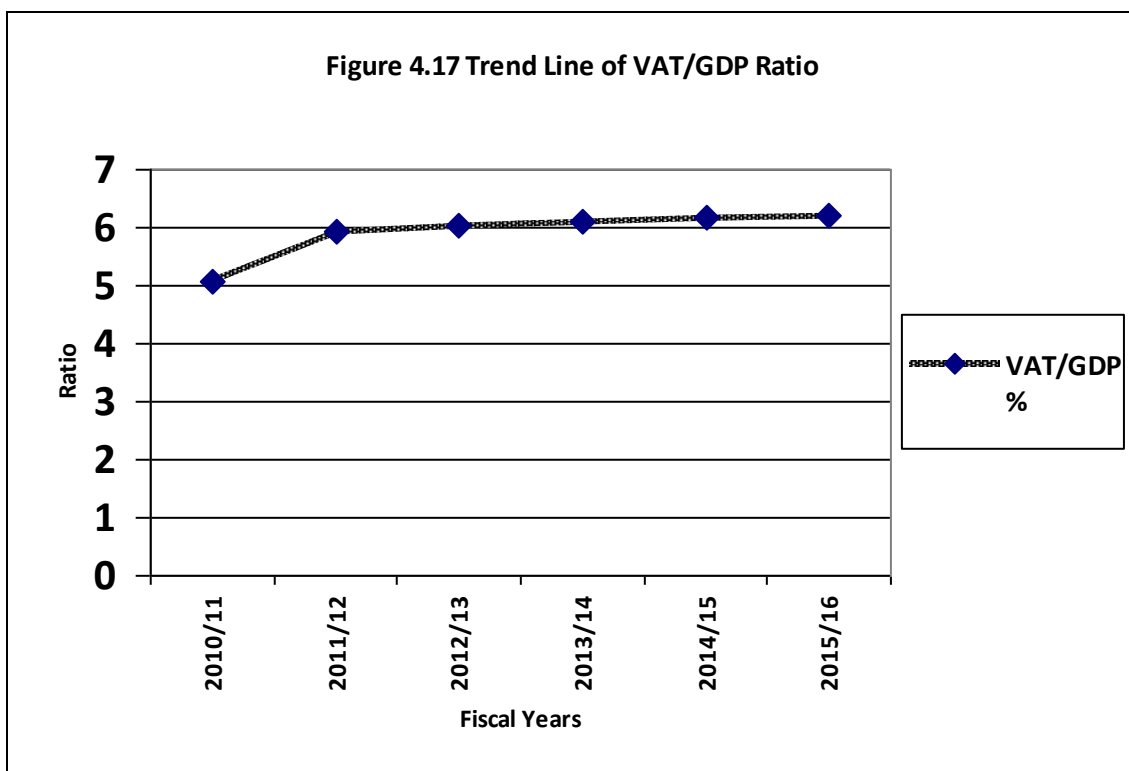
Thus the trend line of dependent variable GDP and independent variable time (i.e. year) is:  $GDP (Y_c) = 825717.81 + 449267.13x$  Similarly, for predicting the VAT revenue, the parameters of the analysis, computed in the Appendix III are as follows:  $a = 36104.80$   $b = 29802.23$ . Where the trend line of dependent variable VAT revenue and independent variable time (i.e. year) is:  $VAT Revenue (Y_c) = 36104.8 + 29802.23x$  Predicted amount of GDP and VAT revenue, computed in the appendix III for the period 2011-2012 to 2015-2016 is presented in the table 4.29.

**Table 4.29**  
**Predicted GDP and VAT Revenue**

*(Rs. in Millions)*

<b>Years</b>	<b>VAT</b>	<b>GDP</b>	<b>VAT/GDP %</b>
2011/12	155,313.72	2,622,786.33	5.92
2012/13	185,115.95	3,072,053.46	6.03
2013/14	214,918.18	3,521,320.59	6.10
2014/15	244,720.41	3,970,587.72	6.16
2015/16	274,522.64	4,419,854.85	6.21

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 4.19 as well.



In the figure 4.19, X-axis denotes years and y-axis denotes ratio of VAT on GDP. The figure depicts that the percentage of VAT on GDP will increase over 6% 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 6% will be achieved. But this is only nominal growth. For the phenomenal increase like up to 6 or 7% 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.

#### **4.20.2 Correlation, Coefficient of determination, Probable Error and T-test 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. Probable Error (PE) is used to measure the reliability and test of significance of correlation coefficient. It is calculated as follows:

$$P.E = 0.6745 \sqrt{\frac{1-r^2}{n}}$$

where r= the correlation coefficient and n = no of paired observations. Decision rule is if  $r > 6P.E$ , it is significant, i.e. there is correlation

between the variables. Similarly t-test can be used to find if the sample correlation coefficient  $r$  is significant of any correlation between the variables in the population or it is just due to fluctuations of sampling. [Source: Research Methodology; P.R.Joshi 2003 p.cit.201.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.

#### **4.20.2.1Gross Domestic Product with Value Added Tax Revenue**

The relationship of VAT revenue and GDP is examined with the help of seven years data from the fiscal year 2004/2005 to 2010/2011. Further, the relation of VAT with GDP, coefficient of determination and value of t-test computed in the Appendices IV are presented below:

<b>Statistical Tools for Analysis</b>	
Correlation Coefficient (r)	0.9945
Coefficient of determination ( $r^2$ )	0.9890
Probable Error (PE)	0.0028
Value of t-test	29.97
Table value of $t_{0.05,5}$	2.571
Average % of VAT on GDP	4.37%

The association of VAT revenue with GDP is very high or in other words, the VAT revenue has significant (very high) degree of correlation with GDP (i.e.  $r = 0.9945$ ). Similarly  $6P.E = 6 \times 0.0028 = 0.0168$ . Since  $r > 6P.E$ , it is significant, i.e. there is correlation between GDP and VAT. The significance of correlation coefficient is high which is over 11 times greater than the value of  $t_{0.05, 6}$  (i.e.  $29.97 > 2.571$ ). The coefficient of determination ( $r^2$ ) is 0.9890 which means that 98.90% of total variation in VAT revenue is explained by gross domestic product. The average % of VAT on GDP over the study period of seven years is 4.37%.

#### 4.20.2.2 Total Revenue with Value Added Tax Revenue

The relationship of Total Revenue and VAT is examined with the help of seven years data from the fiscal year 2004/2005 to 2010/2011. Further, the relation of VAT with Total Revenue, coefficient of determination and value of t-test computed in the Appendices V are presented below:

<b>Statistical Tools for Analysis</b>	
Correlation Coefficient (r)	0.9945
Coefficient of determination ( $r^2$ )	0.9890
Probable Error (PE)	0.0028
Value of t-test	29.97
Table value of $t_{0.05,5}$	2.571
Average % of VAT on Total Revenue	29.42%

The correlation of VAT revenue with Total Revenue is very high or in other words, the VAT revenue has significant (very high) degree of correlation with Total Revenue (i.e.  $r = 0.9945$ ). Similarly  $6P.E = 6 \times 0.0028 = 0.0168$ . Since  $r > 6P.E$ , it is significant, i.e. there is correlation between Total Revenue and VAT. The significance of correlation coefficient is high which is over 11 times greater than the value of  $t_{0.05, 6}$  (i.e.  $29.97 > 2.571$ ). The coefficient of determination ( $r^2$ ) is 0.9890 which means that 98.90% of total variation in Total Revenue is explained by VAT Revenue. The average % of VAT on Total Revenue over the study period of seven years is 29.42%.

#### 4.20.2.3 Total Tax Revenue with Value Added Tax Revenue

The relationship of Total Tax Revenue and VAT is examined with the help of seven years data from the fiscal year 2004/2005 to 2010/2011. Further, the relation of VAT with Total Tax Revenue, coefficient of determination and value of t-test computed in the Appendices VI are presented below:

<b>Statistical Tools for Analysis</b>	
Correlation Coefficient (r)	0.9983
Coefficient of determination (r <sup>2</sup> )	0.9866
Probable Error (PE)	0.00087
Value of t-test	38.13
Table value of t <sub>0.05,5</sub>	2.571
Average % of VAT on Total Revenue	35.40%

The correlation of VAT revenue with Total Tax Revenue is very high or in other words, the VAT revenue has significant (very high) degree of correlation with Total Tax Revenue (i.e.  $r = 0.9983$ ). Similarly  $6P.E = 6 \times 0.00087 = 0.0052$ . Since  $r > 6P.E$ , it is significant, i.e. there is correlation between Total Tax Revenue and VAT. The significance of correlation coefficient is high which is over 14 times greater than the value of  $t_{0.05, 6}$  (i.e.  $38.13 > 2.571$ ). The coefficient of determination ( $r^2$ ) is 0.9866 which means that 98.66% of total variation in Total Tax Revenue is explained by VAT Revenue. The average % of VAT on Total Tax Revenue over the study period of seven years is 35.40%.

#### **4.20.2.4 Total Indirect Tax Revenue with Value Added Tax Revenue**

The relationship of Total Indirect Tax Revenue and VAT is examined with the help of seven years data from the fiscal year 2004/2005 to 2010/2011. Further, the relation of VAT with Total Indirect Tax Revenue, coefficient of determination and value of t-test computed in the Appendices VII are presented below:

<b>Statistical Tools for Analysis</b>	
Correlation Coefficient (r)	0.9987
Coefficient of determination (r <sup>2</sup> )	0.9973
Probable Error (PE)	0.00068
Value of t-test	43.14
Table value of t <sub>0.05,5</sub>	2.571
Average % of VAT on Total Revenue	48.59%

The correlation of VAT revenue with Total Indirect Tax Revenue is very high or in other words, the VAT revenue has significant (very high) degree of correlation with Total Indirect Tax Revenue (i.e.  $r = 0.9987$ ). Similarly  $6P.E = 6 \times 0.00068 = 0.0041$ . Since  $r > 6P.E$ , it is significant, i.e. there is correlation between Total Indirect Tax Revenue and VAT. The significance of correlation coefficient is high which is over 16 times greater than the value of  $t_{0.05, 6}$  (i.e.  $43.14 > 2.571$ ). The coefficient of determination ( $r^2$ ) is 0.9973 which means that 99.73% of total variation in Total Indirect Tax Revenue is explained by VAT Revenue. The average % of VAT on Total Indirect Tax Revenue over the study period of seven years is 48.59%. This implies that about 50 % of Total Indirect Tax Revenue is contributed by VAT revenue in Nepal.

#### **4.20.3 Hypothesis Testing (Student's t-distribution)**

Hypothesis testing begins with an assumption, called a hypothesis, which 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 and vice versa. (Levin & Rubin, 1996: 366).

##### **4.20.3.1 Signaling Effect/Events Study**

Nepalese VAT system is not perfect and matured one. Lack of the knowledge in VAT payers and general public, lack of the proper government policy, manipulated activities of VAT payers or businessmen, open boarder issues and unstable politics is affecting directly the VAT system and revenue mobilization. Sometimes, national and international signaling effects may be the influencing factor for the effectiveness of VAT system in Nepal.

For seeing the signaling factors effect in overall VAT system & revenue mobilization, we can use the pure statistical tools, i.e. paired t-test. Impact of signaling factors effect in the VAT system and revenue mobilization can be analyzed with the help of the VAT & revenue data and t-test formula, by the help of which we

can find out whether there is significant difference in effectiveness of VAT system & revenue mobilization before and after the occurrence of particular event.

For analyzing the impact of signaling factors on effectiveness of VAT & revenue mobilization during the period of 2003/4 to 2010/2011 with reference to selected five major events of the period. Viz.

- VAT Rate Increment (10% to 13%) (Feb 2004)
- People Revolution (May/Jun2006)
- Lead of Govt. by Maoists (Aug 2008)
- Tax participation year (2009/2010)
- Tax Implementation Year (2010/2011)

Hypothesis between major events of the country and VAT & revenue collection were made to find out the result. For that purpose, null hypothesis and alternative hypothesis were the bases of the study and can be set as below;

**Null Hypothesis (H0)**

- a)** There is no significant difference between VAT & Revenue mobilization before and after the increment in VAT Rate.
- b)** There is no significant difference between VAT & Revenue mobilization before after the Peoples' Revolution.
- c)** There is no significant difference between VAT & Revenue mobilization before and after leading the Govt. by Maoists.
- d)** There is no significant difference between VAT & Revenue mobilization before and after tax participation year.
- e)** There is no significant difference between VAT & Revenue mobilization before and after tax implementation year.

**Alternative Hypothesis (H1)**

- a)** There is significant effectiveness in VAT & Revenue mobilization after the increment in VAT Rate.
- b)** There is significant effectiveness in VAT & Revenue mobilization after Peoples' Revolution.
- c)** There is significant effectiveness in VAT & Revenue mobilization after leading the Govt. by Maoists.

- d) There is significant effectiveness in VAT & Revenue mobilization after tax participation year.
- e) There is significant effectiveness in VAT & Revenue mobilization after tax implementation year.

The result obtained by using t-test is presented below;

**Table 4.30**  
**Result from t-test**

Events	t-Tab at 3 df. & 5% l.s.	t-Cal at 3 df. & 5% l.s.	Conclusion	
			Null hypothesis	Alternative hypothesis
<b>Increase of VAT rate</b>	2.353	7.07	Rejected	Accepted
<b>Peoples' revolution</b>	2.353	4.16	Rejected	Accepted
<b>Govt. lead by Maoist</b>	2.353	5.71	Rejected	Accepted
<b>Tax participation year</b>	2.353	5.71	Rejected	Accepted
<b>Tax implementation year</b>	2.353	4.36	Rejected	Accepted

(Source: - ANNEX VIII)

From table 4.30 it is clear that paired t-test tabulated value at 3 degree of freedom at 5% level of significance is 2.353 & calculated values are 7.07, 4.16, 5.71, 5.71 & 4.36 respectively for five major events taken into consideration. Since calculated value of t is greater than the tabulated (critical) value of t, the null hypothesis  $H_0$  is rejected and hence the alternative hypothesis  $H_1$  is accepted. Therefore during the signaling effect of all events viz. increment of VAT rate from 10 to 13 %, Peoples' Revolution, Govt. lead by Maoist, Tax Participation Year and Tax Implementation Year, alternative hypothesis is accepted.

The conclusion that we reached are;

- There is significant effectiveness in VAT & Revenue mobilization after the increment in VAT Rate.
- There is significant effectiveness in VAT & Revenue mobilization after Peoples' Revolution.
- There is significant effectiveness in VAT & Revenue mobilization after leading the Govt. by Maoists.
- There is significant effectiveness in VAT & Revenue mobilization after tax participation year.
- There is significant effectiveness in VAT & Revenue mobilization after tax implementation year.

Hence, we can conclude that such major national events are also responsible to some extent for effectiveness in VAT & Revenue mobilization.

#### **4.20.4 Analysis of Free Opinions of Respondents**

Out of 41 questions about vat implementation only 7 questions were arisen as open-end questions. About the questions ANNEX-II clears for the related parties. Question no.27 is related with the major problems in effectiveness of VAT system and question no 28 is related with the suggestions about making VAT system effectiveness.

Out of 50 questionnaire papers only 60% respondents replied about this questions and rest 20% respondent gave no response about these questions. So, opinions are taken here only from 60% respondents. Actually making the report as original from all the common as well as new suggestive points are presented here as follows:

**Question No. (27):** In your opinion, what are the major problems for effectiveness of VAT system in Nepal?

Here, respondent said:

- a) Lack of competent human resources in VAT administration.
- b) Lack of proper location of revenue offices
- c) Lack of political stability and commitment.
- d) Ineffective organizational structure of VAT administration
- e) Low tax awareness of general public and consumers
- f) Open boarder issues

g) Unclear legislation, VAT act and rules

h) Low implementation of government plans, policies and strategies of VAT

In another question about making VAT system effectiveness, different parties gave their suggestions which are as follows;

**Question No. (28):** In your opinion, how to make VAT system effective in Nepal?

Respondent said:

- Proper rules and regulation of the government.
- Awareness of the people about VAT.
- Improvement of economic condition of country.
- Transparency.
- Timely filling of returns.
- Accounting & VAT forms & filling should be computerized.
- Stable Government in the country.
- Strong buying and selling system.
- Competent human resources in VAT administration.
- Location of revenue offices
- Political stability and commitment.
- Organizational structure of VAT administration
- Tax awareness of general public and consumers
- Resolving open boarder issues
- Legislation, VAT act and rules
- Harmonization of VAT laws and procedural framework on par with international standards.
- Operationalization of research and forecasting for maximization of revenue collection.
- Application of VAT information network, enhancement of VAT enforcement and risk management system.
- Empowering taxpayers on related laws and VAT issues through education, counseling and other outreach programs.
- Increasing voluntary compliance and reduction of compliance cost.
- Identify and reduce non-compliance.
- Promote timely reporting and payment of VAT.
- Enhancement of ICT network.

- Operationalization of full-scale e-governance system.
- Regular auditing and management of ICT system to international standards.
- Establishment of professional forward linkage with national and international agencies
- Transformation of IRD and its associated offices into a segment and functional organization.
- Increase coverage and access of service for potential VAT payers with low administrative cost.
- Application of VAT cadre-based professional and compatible HRM policy and plan.
- Revitalization of human resource development system to increase knowledge, skills and abilities of employees.

#### **4.20.5 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:

##### **4.20.5.1 Findings from the Secondary Data**

1. Resource gap of Rs.4137.6million in fiscal year 1982/83 reached to Rs. 79743.30 million in the fiscal year 2009/10. It showed continuously increasing trend.
2. In Nepal, the resource mobilization is still poor that does not cover the growing expenditure. Fiscal deficit is due to the continuously growing expenditure of the government instead of the low revenue performance in Nepal. That is why country is facing the increasing burden of foreign loan. The increasing resource gap indicates that it is necessary to mobilize additional domestic resources.
3. A large amount of government revenue comes from taxation. More than 85% of government revenue comes from taxation whereas the contribution of non-tax revenue is less than 20% in Nepalese tax structure. The contribution of tax revenue in the fiscal year 2009/10 was 86.86% while that of non-tax revenue is only 13.14 %. Hence the contribution of tax revenue is significant in the later years. 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. The contribution of direct tax in the total tax revenue is very low. The contribution of indirect tax to the total revenue is over 70 % for last 5 study period. The contribution of direct tax is below 30 %. 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.
5. The contribution of income tax to direct tax is higher than other tax and it occupied the largest share in the direct tax.
6. VAT occupies major position in indirect tax and the contribution of the VAT for 2010/2011 is Rs. 61692.85million which is 49.70 % of total indirect tax revenue.
7. 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.
8. The contribution of average total revenue on average GDP for study period of six year is 15.50%. This is not satisfactory which is mainly due to the economic condition of the country. The average percentage of total tax revenue, total direct tax, total indirect tax and VAT on GDP were 12.61%, 3.46%, 9.16% and 4.47 % respectively. The percentage of total direct tax on GDP is very low. Similarly the actual contribution of total revenue to DDP in F/Y 2010/2011 is 16.27 %. The actual percentage of total tax revenue, total direct tax, total indirect tax and VAT on GDP in F/Y 2010/2011 were 14.17%, 3.99%, 10.18% and 5.06 % respectively (Annex-VIII).
9. The contribution of VAT to GDP increased to 5.18 in F/Y 2009/10. The trend of VAT collection is increasing in later years.
10. 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 2007/2008, to just 12.50%. It was mainly due to adverse situation of the country lacking adequate investment areas and shows that the new businesses are not being encouraged to come into existence. The number of VAT registrants in F/Y 2010/2011 was 15300 with 97733 in total. Its rate of increase was 18.56 %. The VAT registration increased by 18 % for last two years and by above 15% for last three years.

11. The number of VAT cancellation has been in increasing trend but the percentage of VAT deregistration to total VAT registration was less than 1 %.
12. The status of Non-filers is not also satisfactory. That's to say the portion of non filers is still high in Nepal. The non filers of VAT were 10.42 % in the year 2005/2006 and 21.50% in F/Y 2010/2011. The non filers are still prevailing above 20 % of the total registrations. There is still high challenge to VAT administration for decreasing the level of non filers in the days to come.
13. Credit returns status is on the increasing trend from every fiscal year which accounts for above 45 %. While debit returns account for below 20 % for last three years of study periods. Nil tax return which accounts for above 30 % 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.
14. The government failed to meet the targeted VAT collection in most of the study periods. The government became successful to achieve target in F/Y 2007/2008 and 2009/2010 only. Even after the implementation of VAT 10 years ago, the government could never get rid of this dire situation.
15. In Nepal, collection of VAT has been classified as imports and domestic sources, out of which collection from imports has significant share i.e. in the fiscal year 2010/11, 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. This surely indicates that there is a heavy dependence on imports rather than domestic products.
16. The contribution of VAT to GDP is just 4.47 % in an average of 6 years of study period. The contribution of VAT to GDP reached 5.06% in the fiscal year 2010/2011. The percentage shows the increasing trend, but very low percentage of GDP throughout all the years of analysis so the VAT/GDP ratio is very low as indicated by the statistical tools like hypothesis testing as well.
17. The contribution of VAT in total revenue is not up to the satisfactory level either. In an average, it could contribute just about 29.64% to the total revenue which is way above the VAT/GDP ratio as indicated by hypothesis testing.

18. Hopefully, an average share of VAT revenue in total tax revenue is pretty good, i.e. the average contribution of VAT to the total revenue is 35.44% which is about one third of the total tax revenue. This simply indicates that VAT is still emerging as the important source of revenue generation.
19. There is high share of VAT in total indirect tax revenue in Nepal. The average contribution of VAT to total indirect tax revenue is about 50 % which shows that Nepalese indirect tax revenue without inclusion of VAT is unthinkable. VAT exemptions, larger amount of tax credit over tax debit and huge volume of tax refunds are mainly responsible for such a low effective rate of VAT in Nepal. Tax exemption and tax credit are the root cause of revenue loss and revenue loss is the main cause of low effective VAT rate. For that reason, to establish the VAT as a prominent source of tax revenue and total revenue, the amount of revenue losses should be declined. For this, tax exemption, unnecessary claim of tax credit by the taxpayers as well as tax deduction should be controlled to a reasonable limit.
20. The share of VAT from internal sources constituted 36 % to total VAT collection. The trend of VAT collection from internal sources is increasing over the years but in decreasing rate. The highest contribution to internal VAT is from other services. Second largest contributor is manufacturing. The least contributor is tourism. The average contribution of manufacturing, trade and commerce, contract and consultancy, tourism and other services to internal VAT collection were 30.48 %, 17.80%, and 12.35 %, 5.45% and 33.93% respectively.
21. The share of VAT from external sources (mainly imports) constituted 64 % to total VAT collection. The trend of VAT collection from external sources is increasing over the years in increasing rate above 14 %.
22. The collection ratio of VAT from internal source and external sources was 36:64 in fiscal year 2010/2011. Average collection ratio of Internal VAT and External VAT over study period of 5 year was 36:64. Hence, Import constitutes 2/3 rd of VAT collection in Nepal.
23. The Time Series shows that given the same trend, the VAT/GDP ratio is expected to rise to near about 6 %. 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.

24. The association of VAT revenue with GDP is very high or in other words, the VAT revenue has significant (very high) degree of correlation with GDP (i.e.  $r = 0.9945$ ). The average % of VAT on GDP over the study period of seven years is 4.37%.
25. The correlation of VAT revenue with Total Revenue is very high or in other words, the VAT revenue has significant (very high) degree of correlation with Total Revenue (i.e.  $r = 0.9945$ ). The average % of VAT on Total Revenue over the study period of seven years is 29.42%.
26. The correlation of VAT revenue with Total Tax Revenue is very high or in other words, the VAT revenue has significant (very high) degree of correlation with Total Tax Revenue (i.e.  $r = 0.9983$ ). The average % of VAT on Total Tax Revenue over the study period of seven years is 35.40%.
27. The correlation of VAT revenue with Total Indirect Tax Revenue is very high or in other words, the VAT revenue has significant (very high) degree of correlation with Total Indirect Tax Revenue (i.e.  $r = 0.9987$ ). The average % of VAT on Total Indirect Tax Revenue over the study period of seven years is 48.59%. This implies that about 50 % of Total Indirect Tax Revenue is contributed by VAT revenue in Nepal.
28. The time series shows that VAT revenue is growing quite proportionately or head to head with GDP, Total Revenue, Total tax revenue and Total Indirect Tax Revenue.
29. According to hypothesis testing, the impact of signaling factors on effectiveness of VAT & revenue mobilization during the period of 2003/4 to 2010/2011 with reference to selected five major events of the period were as follows. There is significant effectiveness in VAT & Revenue mobilization after the increment in VAT Rate.
- There is significant effectiveness in VAT & Revenue mobilization after Peoples' Revolution.
  - There is significant effectiveness in VAT & Revenue mobilization after leading the Govt. by Maoists.
  - There is significant effectiveness in VAT & Revenue mobilization after tax participation year.
  - There is significant effectiveness in VAT & Revenue mobilization after tax implementation year.

Hence, we can conclude that such major national events (VAT rate increment, Peoples' Revolution, Lead of Govt. by Maoist, Tax Participation Year and Tax Implementation Year) are also responsible to some extent for effectiveness in VAT & Revenue mobilization.

30. Though tax system, its structure and operation are very sound, lack of proper implementation by the tax administration is prevailing issue. So tax administration should be effective, efficient, farsighted, and transparent and reform oriented. However in Nepal, sometimes such roles could not be performed by the tax administration effectively. There is a mountain of tax related problems in practice that could not be solved by the tax administration. Such as low invoicing, smuggling of goods, lack of billing practice, lack of ability to access the actual amount of VAT of large business enterprises, wide spread tax evasion practices, lack of taxpayers' voluntary tax compliances, lack of the practice of putting appropriate tax personnel at the right place, and appropriate training, frequent transfer of tax officials, etc. the integration of VAT and income tax system has also made the tax system more challenging.
31. Another challenge in implementing the VAT is taxpayers' behavior. Tax administration found some taxpayers keeping dual accounting, issuing dual bills, taking VAT from the customers but not submitting to the government and charging VAT without registering into the VAT. All these activities are the major problems in the successful implementation of VAT. So, there is a need for discouraging such taxpayers. Efficient tax administration can do this.
32. In Nepal, another serious problem noticed in the successful implementation of VAT is the lack of billing habit. There is a little or no practice of issuing the correct bill. Use of bills during sale of goods and consumables are still regarded as a waste of time and useless thing by many consumers in the country. Some sellers use to compel the buyers to pay extra 13 percent amount, who demand the bill. All these are ante-VAT activities. "Until such issues are sorted out, implementation of VAT will not be successful-many experts say." (Business and Economy-The Independent). Moreover the issue of low invoicing is challenging.

#### **4.20.5.2 Findings from the Primary Data**

1. 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.
2. 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 be increased by discouraging tax evasion. There is wide range of practice of evading tax.
3. Only few numbers of consumers have habit of taking bills on their purchases. 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.
4. 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.
5. There is little knowledge about VAT to taxpayers and low public consciousness level in Nepal. To educate taxpayers and all the concerned bodies, educational program has to be launched in an effective way. But whatever program 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.
6. 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.
7. Taxpayers are not satisfied with the VAT administration. Only few administrators show helpful behavior towards them. Most of the VAT administrators complete their works very slowly and in steady manner. This type of behavior has created great tension and frustration among taxpayers.
8. 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 does not feel liable to provide bills on their every sale to customers. The only motive not to provide bills is for tax evasion.

9. 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.
10. Administrative incapability, under invoicing/ No billing and lack of public awareness towards VAT are main problem in the process of VAT implementation in Nepal.
11. The VAT system that has been implemented in Nepal has completed 15 years of its operation and enters into 16 year. But the data presented in this research is only from F/Y 2005-2006 to 2010-2011, due to several constraints. Due to various complexities and problems this tax system has not been able to achieve the expected level of success.

# **CHAPTER –V**

## **SUMMARY, CONCLUSION & RECOMMENDATION**

In this chapter the concrete view of the overall research is summed up, conclusions are presented on the basis of the major findings made in the preceding chapter and the points of recommendation are presented attempting to offer various recommendations to make the various aspects of VAT better in future.

### **5.1 Summary**

This research work entitled, ‘A STUDY ON EFFECTIVENESS OF VAT SYSTEM IN NEPAL’ has been carried out to ponder into the theoretical knowledge of VAT and to analyze the contribution of VAT in total revenue of government, total tax revenue & GDP, determine the trend of VAT collection, VAT registration & filing of returns, examine the VAT collection from internal sources (mainly manufacturing, trade and commerce, contract and consultancy, tourism and other ) and external sources(mainly imports), analyze the implementation of VAT system in Nepal and to recommend possible corrective measures to overcome weaknesses encountered.

According to the nature and objective of the study, primary data as well as secondary data has been used to meet the objective. In course of finding out the facts related to the problem mentioned above, statistical tools like bar diagrams, pie charts, standard deviation, coefficient of variance, correlation coefficient, Test of hypothesis, T-statistics, probable error (PE), trend analysis, time series analysis and empirical analysis have been done with the help of 6 years data (i.e. from the fiscal year 2005/2006 to 2010/2011) 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., general background of the Nepalese economy and VAT. The chapter also goes on to discuss the main focus of the study, 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 structure of tax revenue in Nepal, current situation of VAT, Registration/Deregistration Status, filling of returns, VAT collection & its collection, Share of VAT to different revenues, internal & external vat, empirical study etc. The study then moves on to examine the trend preceding and following the implementation of VAT in Nepal. The sample survey of 50 concerned people consisting of tax officials, Businessmen and consumers was conducted to throw light on the implementation & administration system of VAT in Nepal. About 41 questions were asked to them about the various issues relating to implementation & administration of VAT in Nepal. The study also discusses the trend of registration, cancellation of registration, Non-filers of 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 6 fiscal years, i.e. from 2005/2006 to 2010/2011 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, and 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. Nepal gets around 89.77 percent of the revenue from tax revenue. 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. VAT plays great role in the revenue mobilization in Nepal. The reason behind VAT system, it makes transparency in all kinds of transaction, removes the cascading affect, helps to make the wide area of tax, maintains neutrality, encourages export, mobilize revenue and discourages tax evasion. So it is needless to say that VAT is the most important sources of the government revenue. In this regard, VAT has become a point of attraction for more than 150 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 Act was enacted in 2052 B.S (1995 A.D) and VAT rules were enacted in 1996 respectively. VAT with single rate of 10% implemented with effect from 16 November 1997 (Mangier1, 2054 BS). The government of Nepal has increased the rate of VAT to 13% with its effect from 15 February 2004 (Magh, 1, 2061). The current threshold for VAT registration is RS.2 million. Those Vendors whose annual turnover is below the threshold can, however, register voluntarily. There is persistent increase in the number of VAT registrants. It has crossed 97733 VAT registrations according to the Annual Report of F/Y 2010/2011 published by Inland Revenue Department of Nepal.

From the above research study, we can conclude that VAT system in Nepal is in developing stage. The study concludes that the effectiveness of VAT system is gradually increasing but in slow and minimum rate. There is vast deviation between the VAT plans, policy targets and performance of VAT in Nepal. This is because of lack of adequate analysis while making the policies and programs, poor implementation of VAT policies and programs, lack of proper rules and regulation of the government, lack of awareness of the people about VAT, poor economic condition of country, lack of transparency, political instability, incapacity of VAT administration, improper organizational structure of VAT administration, open boarder issues , vague VAT act and rules , unclear government plans, policies and strategies of VAT .

According to the finding of the study, we can conclude that VAT system in Nepal is effective as compared to the previous years before increment of VAT rate with regard to the VAT collection, revenue generation, and its contribution to the Nepalese economy. But the VAT system is ineffective to some extent with regard to current plans, policies of government regarding VAT administration and implementation. The effectiveness of the VAT system in Nepal can be concluded in the following grounds:

**VAT system in Nepal is effective because:**

- VAT occupies major position in indirect tax which accounts almost 50 % of total indirect tax. The contribution of VAT to GDP increased to 5.18 in F/Y 2009/10. The trend of VAT collection is increasing in later years. The VAT collection reached to Rs. 61,692.85 million in F/Y 2010/2011. The growth rate of VAT over six years of study was 26 %.
- Number of taxpayers' registrants under VAT has been increasing year after year. The number of VAT registrants in F/Y 2010/2011 was 15300 with 97733 in total. Its rate of increase was 18.56 %. The VAT registration increased by 18 % for last two years and by above 15% for last three years.
- The contribution of VAT to GDP is just 4.47 % in an average of 6 years of study period. The percentage shows the increasing trend. The Time Series shows that given the same trend, the VAT/GDP ratio is expected to rise to near about 6 % for coming 5 years.

- Hopefully, an average share of VAT revenue in total tax revenue is pretty good, i.e. the average contribution of VAT to the total revenue is 35.44% which is about one third of the total tax revenue .This simply indicates that VAT is still emerging as the important source of revenue generation.
- The share of VAT from internal sources constituted 36 % to total VAT collection. The trend of VAT collection from internal sources is increasing. The highest contribution to internal VAT is from other services. Second largest contributor is manufacturing.
- The correlations of VAT revenue with GDP, Total Revenue, Total Tax Revenue, Total Indirect Tax revenue are significant (high) degree. The time series shows that VAT revenue is growing quite proportionately or head to head with GDP, Total Revenue, Total tax revenue and Total Indirect Tax Revenue.
- The signaling effect of five major events viz. increment of VAT rate, peoples' revolution, and government led by Maoist, tax participation year and tax implementation year is positive. There is significant effectiveness in VAT & Revenue mobilization after these five events.
- Different reforms in VAT system have been done for making VAT system effective in Nepal. Such as VAT manual 2068, policy reforms, work efficiency reforms, e-tax reforms, organizational reforms, human resource development reforms etc.

**VAT system in Nepal is ineffective because:**

- The status of Non-filers is not also satisfactory. The non filers are still prevailing above 20 % of the total registrations. There is still high challenge to VAT administration for decreasing the level of non filers in the days to come.
- Credit returns status is on the increasing trend from every fiscal year which accounts for above 45 %. While debit returns account for below 20 % for last three years of study periods. Nil tax return which accounts for above 30 %. 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.

- The government failed to meet the targeted VAT collection in most of the study periods. The government became successful to achieve target in F/Y 2007/2008 and 2009/2010 only.
- In Nepalese VAT structure, collection from imports share about two-third and collection from domestic source occupies one-third only .This surely indicates that there is a heavy dependence on imports rather than domestic products.
- The contribution of VAT in total revenue is not up to the satisfactory level either. In an average, it could contribute just about 29.64% to the total revenue.
- Though Nepal has high potentiality of Tourism, Tourism is the least contributor to the total internal VAT.
- The share of VAT from external sources (mainly imports) constituted 64 % to total VAT collection. The trend of VAT collection from external sources is increasing over the years in increasing rate above 14 %. Hence, Import constitutes 2/3 rd of VAT collection in Nepal.
- The efficiency of the Nepalese VAT administration is not satisfactory and not up to the expectation of the general people. Lack of trained manpower and expertise affects the fluency of VAT administration
- Only few numbers of consumers have habit of taking bills on their purchases. This implies that there is very low public awareness and consciousness level towards VAT. There is little knowledge about VAT to taxpayers and low public consciousness level in Nepal
- The expected amount of VAT collection is not possible due to lack of maintenance of proper accounts which is very serious problems. Traditional Nepalese businessmen do not have the habit of maintaining their account.
- Though tax system, its structure and operation are very sound, lack of proper implementation by the tax administration is prevailing issue. So tax administration should be effective, efficient, farsighted, and transparent and reform oriented. However in Nepal, sometimes such roles could not be performed by the tax administration effectively. There is a mountain of tax related problems in practice that could not be solved by the tax administration. Such as low invoicing, smuggling of goods, lack of billing practice, lack of ability to access the actual amount of VAT of large business enterprises, wide

spread tax evasion practices, lack of taxpayers' voluntary tax compliances, lack of the practice of putting appropriate tax personnel at the right place, and appropriate training, frequent transfer of tax officials, etc. the integration of VAT and income tax system has also made the tax system more challenging.

- Another challenge in implementing the VAT is taxpayers' behavior. Tax administration found some taxpayers keeping dual accounting, issuing dual bills, taking VAT from the customers but not submitting to the government and charging VAT without registering into the VAT. All these activities are the major problems in the successful implementation of VAT
- In Nepal, another serious problem noticed in the successful implementation of VAT is the lack of billing habit. There is a little or no practice of issuing the correct bill. Use of bills during sale of goods and consumables are still regarded as a waste of time and useless thing by many consumers in the country. Some sellers use to compel the buyers to pay extra 13 percent amount, who demand the bill. All these are ante-VAT activities. "Until such issues are sorted out, implementation of VAT will not be successful-many experts say.

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:

1. Administrative power and credibility

2. Tax payer identification
3. Registration and educational program
4. Incentives for small traders
5. Co-ordination with private sector
6. Feasibility of refund system

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 is 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. 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. 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 declaring tax participation, tax implementation year and Tax Week have significant positive influence on VAT registration and collection. The annual policies have been administered in order to increase VAT collection in these years. After the April 2005 movement (also known as the second Janandolan), though there is no political stability and stable economic development, the VAT collection and its contribution is gradually increasing. The government is successful in achieving targets as compared to the years before Peoples' Revolution. There are

continuous and adequate tax reform programs made by IRD and Nepal Government every year. But there are still more challenges to implement the policies and programs. However the government is successful in increasing the effectiveness of VAT system in Nepal in recent years.

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 be reviewed 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. Consumers Awareness Program could be implemented effectively. Billing problem is the major problem of VAT. At this moment the billing habit should be established with a great priority. For this purpose, the following steps are very helpful:
  - Reviewing the customs rates of highly smuggling goods,
  - Regularly monitoring whether VAT bills are issued in the market or not.
  - Purchasing the goods which are low invoiced at low price.
  - Expanding the tax inspection and assessment activities.
  - Collecting and updating international price list of the imported goods to avoid low invoicing
16. A VAT investigation department should be set up under Revenue Investigation Department especially for the purpose of investigating the Audited Financial Reports of businessmen presented to IRD and the same presented to Banks and Financial Institutions. This will significantly decrease the VAT evasion and minimize the risks for Banks and Financial Institutions.
17. The primary responsibility of tax officials is to ensure compliance with VAT laws/system. At the same time, they should ensure that the VAT system is simple, transparent and minimize uncertainty. Thus, the officials should aim to develop and update the existing tax policy to motivate people to pay taxes. While designing the policy, consultations should be held with relevant stakeholders including the business community.
18. The VAT system should fairly balance the need to protect the taxation revenue base with the principles of a good VAT system.
19. It is useful to identify the status of our country with regards to taxpayers' satisfaction level in relation to those of the developed as well the developing countries and the neighbors. Such a comparison was intended by the team.

However, in absence of reliable data, it was not feasible for the study team to do so. Thus, the team recommends to the Inland Revenue Department to identify where the country stands in this respect so that the scope for further improvement can be assessed.

20. ) The tax officials working in the field level should emphasize compliance by taxpayers. Voluntary compliance should always be the primary focus of tax officials. To ensure VAT compliance, VAT procedures should be fair, efficient and transparent. The process should be simple, clear and certain. There should be low compliance costs.
21. Many of the tax officials still have to learn and practice how to deal with taxpayers in a fair and professional manner irrespective of the amount of taxes the taxpayers pay and their social status. The tax officials should be provided with effective orientation on the basic principles of good VAT administration. Such orientation should be provided to both old and new staff members on a regular basis.
22. There is a need to introduce an effective reward and punishment system. Particularly those officials, who do not behave appropriately with the taxpayers and those who seek undue advantages, should be punished.
23. For tax officials, it is very important to develop and sustain a good public image. In absence of these, neither can they succeed in their professional career nor can they live in the community with prestige. This needs to be communicated to the officials.

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.

# BIBLIOGRAPHY

## Reference Books:

- Adhikari, C.M. (2003). *Value Added Tax In Nepal*. Kathmandu: Pairavi Prakashan.
- Agrawal, J. (2004). *Income Tax (theory and practice)*. Kathmandu: Buddha Academic Publishers & Distributors.
- Amatya, S.K., Pokharel, B.B. & Dahal, R.K. (2004). *Taxation in Nepal (Income Tax, Property Tax & Value Added Tax)*. Kathmandu: M.K. Publishers & Distributors.
- Bhattarai, I. & Koirala G.P. (2007). *Taxation in Nepal with Tax Planning & VAT*, Kathmandu: Asmita Prakashan.
- Gupta, S.C. (1996). *Fundamentals of Statistics*. Bombay, Delhi & Nagpur: Himalaya Publishing House.
- Howell, H. Zee (1995). *Tax Policy*, Washington D.C.: IMF.
- Joshi, P.R. (2001). *Research Methodology*. Kathmandu: Buddha Academic Enterprises Pvt. Ltd.
- Kandel, P..R. (2003 & 2004). *Tax Laws & Tax Planning in Nepal*. Kathmandu: Ratna Pustak Bhandar.
- Khadka, R.B. (1997). *VAT in Nepal: Theory & Practice*. Kathmandu: Ratna Pustak Bhandar.
- \_\_\_\_\_ (1985). *Sales Taxation in Nepal*. Kathmandu: Ratna Pustak Bhandar.
- \_\_\_\_\_ (2000). *The Nepalese Tax System*. Kathmandu: Sajha Prakashan.
- \_\_\_\_\_ (2001). *Four Years of Implementation*. Kathmandu: IRD & DANIDA/VAT Project.
- Kothari, C.R. (1994). *Research Methodology (Methods & Techniques)*. New Delhi; Vikash Publications.
- Levin, R.I. & Rubin, D.S. (1996). *Statistics for Management*. New Delhi: Prentice-Hall of India.
- Pandit, S.P. (1996). *Kardatako Guide*. Kathmandu: Education Information Centre.
- Shoup, C.S. (1978). *VAT & Developing Countries*. Washington DC: the World Bank.
- Shrestha, S. & Silwal, D.P. (2000). *Statistical Methods in Management*. Kathmandu: Taleju Prakashan.

- Shrestha, S.M. (2005). *An Introduction to Value Added Tax with Practice & Regulation in Nepal*. Kathmandu: Himalayan Book Stall Publishers & Distributers.
- Silwal, N.P. (1997). *Value Added Tax: A Nepalese Experience*. Kathmandu: Pairavi Prakashan.
- Wolf, H.K.& Pant, P.R. (2000). *A Handbook for Social Science Research & Thesis Writing*. Kathmandu: Buddha Academic Enterprises Pvt. Ltd.

**Journals, Articles & Related Published Documents:**

- Ahmandand, Wallow (1989), *Tax Reform Package on VAT for Pakistan*,  
Pakistan: Institute of Policy Studies Working Paper  
Vol. 20
- Business Age, (2003). 26-29 'VAT Refund System. Kathmandu.
- Choi, Kwang (1983), *VAT in Republic of Korea Economic Bulletin for Asia and Pacific*, vol 2 (Dec.) New York: United Nations.
- Chang, Se-Won and Ma Lourdes, B.Recente, "The VAT experience in Republic of Korea" in "The VAT experience in Asia", Asia Pacific Tax and Investment Research Center and Asian Development Bank, 1988
- Dhungana, Y.P. Dec (2003). 'Value Added Tax & Its Legal Scrutiny. Business Age, 32  
ICAN Journal (December 2005). Kathmandu.
- Due, John F. and Greony, Fransis (1991), "The Development of Value Added Tax, Trinidad and Tobago", *Bulletin for international bureau of Fiscal Documentation* Amsterdam: IBFD.
- Due, John F. and Mayer Carrie (1988), "Diminican Republic Value Added Tax", *Bulletin for the International Bureau of Fiscal Documentation*, Vol 42 No 1, Amsterdam: IBFD
- Inland Revenue Department. *Annual Report*. (2005/2006 to 2010/2011). Kathmandu.
- Jyoti, R (2002), 'VAT Analysis & Suggestions. New Business Age.
- Khadka, R. B (2001). 'A report on German Tax System Study Tour'.

Lent, George E., Milka Casanegra and Michael Guerael (1993),  
*The Value Added Taxation in Developing Countries*,  
Washington D.C: IMF Staff Papers, vol. xx. No. 2. (July) .

Ministry Of Finance, *Budget Speech*. (2005/2006 to 2010/2011). Kathmandu.

\_\_\_\_\_, *Economic Survey* (2005/2006 to 2010/2011). Kathmandu.

Nepal Rastra Bank, *Economic Report*. (2006/2007). Kathmandu.

\_\_\_\_\_, *Macroeconomic Indicators of Nepal* ( 2008 to 2010), Kathmandu.

\_\_\_\_\_, *Quarterly Economic Bulletins*). Kathmandu.

\_\_\_\_\_, *Monetary policies of Nepal* ( 2008 to 2010)

The Himilayan Times, Kathmandu, June24 ,2012

The Himilayan Times, Kathmandu, June27 ,2012

The Himilayan Times, Kathmandu, June25 ,2012

The Himilayan Times, Kathmandu, August 02 ,2012

Tait, Alan A. (1991), *Value Added Tax: Administrative and Policy Issues*, Washington D.C.:IMF Occasional Papers.

**Thesis:**

Aryal, M. (2006). *An Analysis of Value Added Tax in Nepal*. An Unpublished Masters Degree Thesis, Submitted to Faculty of Management, T.U.

Chhetri, P.K. (2010). *Value Added Tax in Nepal: Past & Present*. An Unpublished Masters Degree Thesis, Submitted to Faculty of Management, T.U.

Dangol, N.M. (2006). *Tax Reform in Nepal: A Study of Value Added Tax*. An Unpublished Masters Degree Thesis, Submitted to Faculty of Management, T.U.

Dhakal, D.R. (2004). *A Study on Practices of Value Added Tax in Nepal*. An Unpublished Masters Degree Thesis, Submitted to Faculty of Management, T.U.

Kuikel, R. (2004). *Effectiveness of VAT in Revenue Collection in Nepal*. An Unpublished Masters Degree Thesis, Submitted to Faculty of Management, T.U.

Pradhan, T.B. (2010). *Taxpayers' Education Regarding VAT Collection In Nepal*. An Unpublished Masters Degree Thesis, Submitted to Faculty of Management, T.U.

Sharma, Rabilal (2008), *Issues and practice of VAT In Nepal*. An Unpublished Master's Degree Thesis, Submitted to Faculty of Management, T.U.

Sapkota, Narayan Prashad (2009), ), *Efficiency of VAT In Revenue Mobilization in Nepal*. An Unpublished Master's Degree Thesis, Submitted to Faculty of Management, T.U.

### **Act & Rule:**

Value Added Tax Act, 2052 and Value Added Tax Rule, 2053

VAT Manual 2069

Finance Bill 2068

### **Websites:**

[http://en.wikipedia.org/wiki/Value\\_added\\_tax](http://en.wikipedia.org/wiki/Value_added_tax)

[http://http://ec.europa.eu/taxation\\_customs/taxation/vat/how\\_vat\\_works/index\\_en.htm](http://http://ec.europa.eu/taxation_customs/taxation/vat/how_vat_works/index_en.htm)

<http://www.alderlnepal.org.np/Nepalese%20Value%20Added%20Tax%20-%20An%20Overview.doc>

[http://www.direct.gov.uk/en/MoneyTaxAndBenefits/Taxes/BeginnersGuideToTax/DG\\_401589](http://www.direct.gov.uk/en/MoneyTaxAndBenefits/Taxes/BeginnersGuideToTax/DG_401589)

<http://www.duport.co.uk/guides/tax&vat/An%20Introduction%20to%20VAT.HTM>

<http://www.economywatch.com/business-and-economy/vat.html>

<http://www.fncci.org/text/tax.pdf>

<http://www.imf.org>

<http://www.ird.gov.np>

<http://www.kantipuronline.com/kolnews.php?&nid=92120>

<http://www.mof.gov.np/publication/speech/2007/index.php>

<http://www.nepalchamber.org/policies/incometax.php>

<http://www.nepalchamber.org/policies/incometax.php>

## **APPENDICES**

### **Appendix - I**

#### **Cover Letter**

Dear Sir and Madam,

Namaste!

First of all, I would like to introduce myself. I am a student of Tribhuvan Multiple Campus, Tansen, Palpa currently engaged in the research work on “Effectiveness of VAT in Nepal” for the fulfillment of my dissertation paper on management for the Master’s Degree of Business Studies (MBS), Tribhuvan University, Kathmandu. To fulfill 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!

Regards,  
Atma Bahadur Suryabamsi  
Tribhuvan Multiple Campus  
Tansen , Palpa  
Nepal



## **Appendix - II**

### **Questionnaire**

Please tick mark (√) the suitable answers of your choice from the following questions and wherever appropriate please rank them on the basis of number of alternatives and importance.

1. Name:
2. Gender    Male ( ) Female( ) Other ( )
3. Age    ..:
4. Designation :
5. Qualification:
6. Revenue Office :    Eastern ( ) Mid ( ) Western ( ) Mid-Western( ) Far Western ( )
7. Business type: Firm( ) Partnership( ) Company ( )
8. Business nature:
9. Annual Sales :
10. Business Start date:
11. Your position in your business?
12. Which medium do you often get news and notice from?
  - a) Radio ( ) b) T.V( ) c) Newspaper( ) d) others( )
13. Mention whether following statements are right or wrong?
  - Non payer of VAT is punished?
  - Regular payer of VAT is rewarded?
  - The government is unfairly levying taxes
  - The government has clearly defined VAT policies
  - The VAT procedures are clear and simple
  - Amount of VAT to be paid to the Government is generally high
  - Tax officers have discretionary power in imposing VAT
  - Advance VAT deduction on income is justifiable and fair
  - More people will pay VAT in Nepal if VAT rate is reduced
  - It is better to reduce VAT threshold
  - VAT coverage should be increased

14. Kindly rate your response on the quality of various services of Inland Revenue Offices (IROs) as 1.Excellent 2.Very good 3.Good 4.OK 5.Poor 6.Very poor 7.Extremely poor

- Location and accessibility of IRO/ VAT office (Convenience)
- Ease in locating and contacting appropriate persons in the IRO/ VAT office (Direction Signals)
- Response of VAT officials to your query/ problem
- Friendliness and behavior of revenue/ VAT officials
- General attitude of revenue/VAT officials towards your problems
- Overall satisfaction with the services provided

15. How important is the quality of (taxpayer) services of the IRO to you as a taxpayer?

1. Very much 2.Very 3.Important 4.Just OK 5.Not so 6.Not 7.Not important

16. Do you think that the quality of services of the IRO/ Tax Office has improved or deteriorated over the last three years?

1. Very much 2.Very 3.Moderately 4.Not 5.Moderately 6.Very  
7. Very much improved 8 deteriorated

17. Do you have to bear extra cost than what you are supposed to be paying at the Revenue/Tax Office to get your job done?

1. Always 2.Very 3.Frequently 4.Often 5. Not so often 6. Sometimes  
7. Never Frequently

18. Kindly rate your response on the procedures and administrative mechanism of Revenue/ Tax Office in the case of VAT as:

1. Excellent 2.Very good3.Good4.Okay5.Poor6.Very poor7.Extremely poor

- a) Ease in filling up the VAT forms
- b) Simplicity in procedures in submitting VAT returns
- c) Clarity in procedures in submitting VAT returns
- d) Ease in complying with VAT process
- e) Fairness in decisions of the VAT officials
- f) Ease in getting VAT refund
- g) General perception on Revenue/ VAT administration system
- h) Overall VAT procedures and administrative mechanism

19. Do you think that the clarity and simplicity of procedures and mechanism in the Revenue/ VAT Office has improved or deteriorated over the last three years?

1. Very much 2. Very 3. Slightly 4. Not 5. Slightly 6. Very  
7. Very much improved 8. Deteriorated.

20. What are the problems did you face while registering your business in VAT?

21. What are the obstacles are you facing while paying and filling returns?

22. Is implementation of VAT system in Nepal effective or not? Specify the reasons.

23. What do you think about the existing government VAT plans, policies and strategies?

24. What are your comments on VAT legislation, VAT ACT and VAT rules in Nepal?

25. What are the most important factors for effective implementation of VAT system in Nepal?

26. What do you think is the most important factor for effective implementation of VAT system in Nepal? Please rank them from 1 to 8 giving higher ranks to more important factors.

- i) Competent human resources in VAT administration. ( )
- j) Location of revenue offices ( )
- k) Political stability and commitment. ( )
- l) Organizational structure of VAT administration ( )
- m) Tax awareness of general public and consumers ( )
- n) Resolving open boarder issues ( )
- o) Legislation, VAT act and rules ( )
- p) Government plans, policies and strategies of VAT ( )
- q) Others please specify.....

27. What are the existing problems associated with implementation of VAT system in Nepal. Rank them:

- r) Inadequate manpower with little knowledge about VAT ( )
- s) Geographical issues ( )
- t) Political issues ( )
- u) Inefficient tax administration ( )

- v) Tax unconscious of the people ( )
- w) Open boarder and bill deflating issues ( )
- x) Improper VAT act and rules ( )
- y) Ineffective government plans, policies and strategies ( )
- z) Others, please specify:.....

28. What are your suggestions to make the VAT system effective and successful?

29. Do you know about VAT?

- aa) Yes ( ) b) Partially ( ) c) No ( )

30. What is your suggestion on existing VAT rate?

- a) To be reduced ( ) specify the rate ( )
- b) To be increased ( ) specify the rate ( )
- c) It is ok ( )
- d) I don't know ( )

31. What is your view about billing system in VAT?

- a) Possible ( ) b) Impossible ( ) c) Costly ( )

32. What are the most existing problems in VAT system associated with?

- a) Registration ( )
- b) Filing of returns ( )
- c) Payment ( )
- d) Others please specify:.....

33. What do you think about Nepalese VAT administration system?

- a. Efficient
- b. Inefficient
- c. Needs Improvement

34. Which method in your view is the best way to increase public revenue through VAT?

- a. Increasing tax
- b. Widening its coverage
- c. Discouraging tax evasion
- d. Others

35. Do you consider taking bills on your purchase?

- a. Yes on every purchase
- b. Yes, on most of the purchase
- c. Yes, but not regular
- d. No, I never get any bill

36. Which is the most effective media for increasing VAT education?
- a. Radio/TV
  - b. Newspaper
  - c. Booklets/Pamphlets
  - d. Wall Painting/Banner
  - e. Seminars
37. What are the major weaknesses in VAT administration?
- a. Lack of Expertise
  - b. Lack of Trained Manpower
  - c. Corruption & Bribing
  - d. Lack of Physical Infrastructure
  - e. Lack of Sufficient Field Officers
38. What is the behaviour of VAT administrators toward Taxpayers?
- a. Very helpful
  - b. Helpful
  - c. Very troublesome & Slow in their work
  - d. Disrespectful, treating badly
39. What are the major problems in VAT collection?
- a. Registration
  - b. Account Keeping
  - c. Billing
  - d. Tax Refund
40. What are the major problems regarding VAT Accounting?
- a. Illiteracy
  - b. Not used to A/c Keeping
  - c. Rules & Regulation still confusing
  - d. Tax evasion is difficult under VAT
41. What are the major problems regarding implementation aspects of VAT?
- a. Administrative Incapability
  - b. d. Lack of Public Awareness
  - c. Under Invoicing
  - d. e. Lack of Long term Policy & Strategy
  - e. Frequent Changes in Acts
  - f. Taxpayers unknown to VAT

## Appendix - III

### Estimation of VAT and GDP for Next 5 Years

#### A. Estimation of Vat For 5 Years

Let the straight line trend be represented by

$$Y = a + bx \text{----- (i)}$$

#### Projection of VAT for next 5 Years

Fiscal Year	VAT Revenue Y	Middle Year X	$x = (X - 2007.5)$	$x^2$	$xY$
2004/2005	18,894.63	2004.5	-3	9	-56,683.89
2005/2006	21,613.04	2005.5	-2	4	-43,226.08
2006/2007	26,095.60	2006.5	-1	1	-26,095.60
2007/2008	29,815.70	2007.5	0	0	0.00
2008/2009	39,700.92	2008.5	1	1	39,700.92
2009/2010	54,920.86	2009.5	2	4	109,841.72
2010/2011	61,692.85	2010.5	3	9	185,078.55
N=7 Total	252,733.60		0	28	208,615.62

Let, assumed mean for middle fiscal year (A) = 2007.5

Since,  $\sum x = 0$ ,  $a = \sum y / n$  and  $b = (\sum xY) / n$

$$a = 252733.60 / 7 = 36104.8$$

$$b = 208615.62 / 7 = 29802.23$$

Substituting value of a and b in equation (i), the trend line will be

$$Y = 36104.8 + 29802.23x$$

For estimating VAT for next 5 years

When,

$$X = 2011/12, x = 4$$

$$X = 2012/13, x = 5$$

$$X = 2013//14, x = 6$$

$$X = 2014/15, x = 7$$

$$X = 2016/16, x = 8$$

**Expected amount of VAT for next 5 years**

Years	x	Calculation	VAT
2011/12	4	36104.8 29802.23 ×4	155,313.72
2012/13	5	36104.8 29802.23 ×5	185,115.95
2013/14	6	36104.8 29802.23 ×6	214,918.18
2014/15	7	36104.8 29802.23 ×7	244,720.41
2015/16	8	36104.8 29802.23 ×8	274,522.64

### B. Estimation of GDP For 5 Years

Let the straight line trend be represented by

$$Y = a + bx \text{----- (ii)}$$

Fitting the Trend Line

#### Projection of GDP for next 5 Years

Fiscal Year	GDP ( Y )	Middle Year X	x=(X-2007.5)	x <sup>2</sup>	xY
2004/2005	548,484.70	2004.5	-3	9	-1,645,454.10
2005/2006	611,118.00	2005.5	-2	4	-1,222,236.00
2006/2007	675,859.00	2006.5	-1	1	-675,859.00
2007/2008	755,257.00	2007.5	0	0	0.00
2008/2009	909,309.00	2008.5	1	1	909,309.00
2009/2010	1,060,881.00	2009.5	2	4	2,121,762.00
2010/2011	1,219,116.00	2010.5	3	9	3,657,348.00
n=7 Total	5,780,024.70		0	28	3,144,869.90

Let, assumed mean for middle fiscal year (A) = 2007.5

Since,  $\sum x = 0$ ,  $a = \sum y / n$  and  $b = (\sum xY) / n$

$$a = 5780024.70 / 7 = 825717.81$$

$$b = 3144869.90 / 7 = 449267.13$$

Substituting value of a and b in equation (i), the trend line will be

$$Y = 825717.81 + 449267.13x$$

For estimating GDP for next 5 years

When,

$$X = 2011/12, x = 4$$

X=2012/13, x=5

X=2013//14, x=6

X=2014/15, x=7

X=2016/16, x=8

**Expected amount of GDP for next 5 years**

<b>Years</b>	<b>x</b>	<b>Calculation</b>	<b>GDP</b>
2011/12	4	$825717.81 + 449267.13 \times 4$	2,622,786.33
2012/13	5	$825717.81 + 449267.13 \times 5$	3,072,053.46
2013/14	6	$825717.81 + 449267.13 \times 6$	3,521,320.59
2014/15	7	$825717.81 + 449267.13 \times 7$	3,970,587.72
2015/16	8	$825717.81 + 449267.13 \times 8$	4,419,854.85

**Appendix - IV**  
**Calculation of Correlation, Coefficient of Correlation and T-Test**  
**Gross Domestic Product and Value Added Tax**

**A. Correlation**

<b>Years</b>	<b>X1(GDP)</b>	<b>X2(VAT)</b>	<b>x1=(<math>\bar{X1}-X1</math>)</b>	<b>x2=(<math>\bar{X2}-X2</math>)</b>	<b>x1<sup>2</sup></b>	<b>x2<sup>2</sup></b>	<b>x1x2</b>
2004/2005	548,484.70	18,894.63	-277,233.11	-17,210.17	76,858,197,280.27	296,189,951.43	4,771,228,952.73
2005/2006	611,118.00	21,613.04	-214,599.81	-14,491.76	46,053,078,452.04	210,011,107.90	3,109,928,942.57
2006/2007	675,859.00	26,095.60	-149,858.81	-10,009.20	22,457,662,934.62	100,184,084.64	1,499,966,801.05
2007/2008	755,257.00	29,815.70	-70,460.81	-6,289.10	4,964,725,745.86	39,552,778.81	443,135,080.17
2008/2009	909,309.00	39,700.92	83,591.19	3,596.12	6,987,487,045.62	12,932,079.05	300,603,950.18
2009/2010	1,060,881.00	54,920.86	235,163.19	18,816.06	55,301,725,930.98	354,044,113.92	4,424,844,692.83
2010/2011	1,219,116.00	61,692.85	393,398.19	25,588.05	154,762,135,895.28	654,748,302.80	10,066,292,555.63
<b>N=7 Total</b>	<b>5,780,024.70</b>	<b>252,733.60</b>	<b>0.00</b>	<b>0.00</b>	<b>367,385,013,284.65</b>	<b>1,667,662,418.56</b>	<b>24,616,000,975.16</b>

$$\bar{X}_1 = X_1/7 = 5,780,024.70/7 = 825717.81$$

$$\bar{X}_2 = X_2/7 = 252,733.60/7 = 36104.80$$

$$\begin{aligned} \text{Correlation Coefficient } (r_{12}) &= \frac{[\sum X_1 \times X_2]}{[(\sqrt{\sum X_1^2})(\sqrt{\sum X_2^2})]} \\ &= \frac{24,616,000,975.16}{[\sqrt{367,385,013,284.65} \times \sqrt{1,667,662,418.56}]} \\ &= \frac{24,616,000,975.16}{606122.94 \times 40837.02} \\ &= 0.9945 \end{aligned}$$

### B. Coefficient Of determination

$$\begin{aligned} \text{Coefficient of determination } (r^2) &= (0.9945)^2 \\ &= 0.9890 \end{aligned}$$

### C. Probable Error (PE)

**PE** used to measure the reliability and test of significance of correlation coefficient. It is calculated as follows:

$$\begin{aligned} \text{P.E} &= 0.6745 \frac{\sqrt{1-r^2}}{\sqrt{n}} \quad \text{where } r = \text{the correlation coefficient and } n = \text{no of paired observations} \\ &= 0.6745 \frac{\sqrt{1-0.9890}}{\sqrt{7}} \\ &= 0.6745 \frac{0.0110}{2.6458} \\ &= 0.6745 \times 0.0042 \\ &= 0.0028 \end{aligned}$$

$$6\text{P.E} = 6 \times 0.0028 = 0.0168$$

Since  $r > 6\text{P.E}$ , it is significant, i.e. there is correlation between GDP and VAT

### D. t-Test for Significance of an observed sample correlation coefficient

t-test can be used to find if the sample correlation coefficient  $r$  is significant of any correlation between the variables in the population or it is just due to fluctuations of sampling. [Source: Research Methodology; P.R.Joshi 2003 p.cit.201]

We have,

Sample size ( $n$ ) = 7,

Sample correlation coefficient ( $r$ ) = 0.9945

Null hypothesis H0:  $\rho = 0$ . That is, population correlation coefficient is zero. In other words, variables are uncorrelated in the population.

Alternative hypothesis H1:  $\rho \neq 0$ . That is, population correlation coefficient is not equal to zero. In other words, variables are correlated in the population.

Test Statistic: Under H0, the test statistic is

$$\begin{aligned}t &= \frac{r}{\sqrt{1-r^2}} \times \sqrt{(n-2)} \sim t_{n-2} \\&= \frac{0.9945}{\sqrt{1-0.9945}} \times \sqrt{(7-2)} \\&= \frac{0.9945}{0.0742} \times 2.2361 \\&= 29.97\end{aligned}$$

Degree of Freedom =  $n-2 = 7-2 = 5$

Tabulated value of t for 5 d.f. at 5% level of significance for two tailed test is 2.571.

Decision: since, the calculated value of t is greater than the tabulated value of t, it is significant and H0 is rejected, which means that the variables are correlated in the population.

#### **E. Average % of VAT on GDP**

Average GDP for 7 years = 825717.81 millions

Average VAT for 7 years = 36104.80 millions

$$\begin{aligned}\therefore \text{Average \% of VAT on GDP} &= \frac{36104.80}{825717.81} \times 100 \\&= 4.37 \%\end{aligned}$$

## Appendix - V

### Calculation of Correlation, Coefficient of Correlation and t-test Total Revenue and Value Added Tax

#### A. Correlation

Years	X1(TR)	X2(VAT)	$x1=(\bar{X1}-X1)$	$x2=(\bar{X2}-X2)$	$x1^2$	$x2^2$	$x1x2$
2004/2005	70,122.70	18,894.63	-52,589.60	-17,210.17	2,765,666,028.16	296,189,951.43	905,075,956.23
2005/2006	71,733.10	21,613.04	-50,979.20	-14,491.76	2,598,878,832.64	210,011,107.90	738,778,331.39
2006/2007	87,711.20	26,095.60	-35,001.10	-10,009.20	1,225,077,001.21	100,184,084.64	350,333,010.12
2007/2008	107,622.50	29,815.70	-15,089.80	-6,289.10	227,702,064.04	39,552,778.81	94,901,261.18
2008/2009	143,474.50	39,700.92	20,762.20	3,596.12	431,068,948.84	12,932,079.05	74,663,362.66
2009/2010	179,945.80	54,920.86	57,233.50	18,816.06	3,275,673,522.25	354,044,113.92	1,076,908,970.01
2010/2011	198,376.32	61,692.85	75,664.02	25,588.05	5,725,043,922.56	654,748,302.80	1,936,094,726.96
<b>N=7 Total</b>	<b>858,986.12</b>	<b>252,733.60</b>	<b>0.00</b>	<b>0.00</b>	<b>16,249,110,319.70</b>	<b>1,667,662,418.56</b>	<b>5,176,755,618.56</b>

$$\bar{X}_1 = X_1/7 = 858,986.12/7 = 122712.30$$

$$\bar{X}_2 = X_2/7 = 252,733.60/7 = 36104.80$$

$$\begin{aligned} \text{Correlation Coefficient } (r_{12}) &= \frac{[\sum X_1 \times X_2]}{[(\sqrt{\sum X_1^2})(\sqrt{\sum X_2^2})]} \\ &= \frac{5,176,755,618.56}{[\sqrt{16,249,110,319.70} \times \sqrt{1,667,662,418.56}]} \\ &= \frac{5,176,755,618.56}{127472.00 \times 40837.02} \\ &= 0.9945 \end{aligned}$$

### B. Coefficient Of determination

$$\begin{aligned} \text{Coefficient of determination } (r^2) &= (0.9945)^2 \\ &= 0.9890 \end{aligned}$$

### C. Probable Error (PE)

**PE** used to measure the reliability and test of significance of correlation coefficient. It is calculated as follows:

$$\begin{aligned} \text{P.E} &= 0.6745 \frac{\sqrt{1-r^2}}{\sqrt{n}} \quad \text{where } r = \text{the correlation coefficient and } n = \text{no of paired observations} \\ &= 0.6745 \frac{\sqrt{1-0.9890}}{\sqrt{7}} \\ &= 0.6745 \frac{0.0110}{2.6458} \\ &= 0.6745 \times 0.0042 \\ &= 0.0028 \end{aligned}$$

$$6\text{P.E} = 6 \times 0.0028 = 0.0168$$

Since  $r > 6\text{P.E}$ , it is significant, i.e. there is correlation between GDP and VAT

### D. t-Test for Significance of an observed sample correlation coefficient

t-test can be used to find if the sample correlation coefficient  $r$  is significant of any correlation between the variables in the population or it is just due to fluctuations of sampling. [source: Research Methodology; P.R.Joshi 2003 p.cit.201]

We have,

Sample size ( $n$ )=7,

Sample correlation coefficient ( $r$ )=0.9945

Null hypothesis H0:  $\rho = 0$ . That is, population correlation coefficient is zero. In other words, variables are uncorrelated in the population.

Alternative hypothesis H1:  $\rho \neq 0$ . That is, population correlation coefficient is not equal to zero. In other words, variables are correlated in the population.

Test Statistic: Under H0, the test statistic is

$$\begin{aligned} t &= \frac{r}{\sqrt{1-r^2}} \times \sqrt{(n-2)} \sim t_{n-2} \\ &= \frac{0.9945}{\sqrt{1-0.9945}} \times \sqrt{(7-2)} \\ &= \frac{0.9945}{0.0742} \times 2.2361 \\ &= 29.97 \end{aligned}$$

Degree of Freedom =  $n-2 = 7-2 = 5$

Tabulated value of t for 5 d.f. at 5% level of significance for two tailed test is 2.571.

Decision: since, the calculated value of t is greater than the tabulated value of t, it is significant and H0 is rejected, which means that the variables are correlated in the population.

#### **E. Average % of VAT on Total Revenue**

Average Total Revenue for 7 years = 122712.30 millions

Average VAT for 7 years = 36104.80 millions

$$\begin{aligned} \therefore \text{Average \% of VAT on Total Revenue} &= \frac{36104.80}{122712.30} \times 100 \\ &= 29.42\% \end{aligned}$$

## Appendix - VI

### Calculation of Correlation, Coefficient of Correlation and t-test

#### Total Tax Revenue and Value Added Tax

##### A. Correlation

Years	X1(TTR)	X2(VAT)	$x1=(\bar{X1}-X1)$	$x2=(\bar{X2}-X2)$	$x1^2$	$x2^2$	$x1x2$
2004/2005	54,104.70	18,894.63	-47,887.02	-17,210.17	2,293,166,684.48	296,189,951.43	824,143,754.99
2005/2006	57,430.40	21,613.04	-44,561.32	-14,491.76	1,985,711,240.14	210,011,107.90	645,771,954.72
2006/2007	71,126.73	26,095.60	-30,864.99	-10,009.20	952,647,607.70	100,184,084.64	308,933,857.91
2007/2008	85,155.50	29,815.70	-16,836.22	-6,289.10	283,458,303.89	39,552,778.81	105,884,671.20
2008/2009	117,051.90	39,700.92	15,060.18	3,596.12	226,809,021.63	12,932,079.05	54,158,214.50
2009/2010	156,294.90	54,920.86	54,303.18	18,816.06	2,948,835,358.11	354,044,113.92	1,021,771,893.07
2010/2011	172,777.91	61,692.85	70,786.19	25,588.05	5,010,684,694.72	654,748,302.80	1,811,280,569.03
<b>N=7 Total</b>	<b>713,942.04</b>	<b>252,733.60</b>	<b>0.00</b>	<b>0.00</b>	<b>13,701,312,910.67</b>	<b>1,667,662,418.56</b>	<b>4,771,944,915.43</b>

$$\bar{X}_1 = X_1/7 = 713,942.04/7 = 101991.72$$

$$\bar{X}_2 = X_2/7 = 252,733.60/7 = 36104.80$$

$$\begin{aligned} \text{Correlation Coefficient } (r_{12}) &= \frac{[\sum X_1 \times X_2]}{[(\sqrt{\sum X_1^2})(\sqrt{\sum X_2^2})]} \\ &= \frac{4,771,944,915.43}{[\sqrt{13,701,312,910.67} \times \sqrt{1,667,662,418.56}]} \\ &= \frac{4,771,944,915.43}{117,052.61 \times 40837.02} \\ &= 0.9983 \end{aligned}$$

### B. Coefficient Of determination

$$\begin{aligned} \text{Coefficient of determination } (r^2) &= (0.9983)^2 \\ &= 0.9966 \end{aligned}$$

### C. Probable Error (PE)

PE used to measure the reliability and test of significance of correlation coefficient.

It is calculated as follows:

$$\begin{aligned} \text{P.E} &= 0.6745 \frac{\sqrt{1-r^2}}{\sqrt{n}} \quad \text{where } r = \text{the correlation coefficient and } n = \text{no of paired observations} \\ &= 0.6745 \frac{\sqrt{1-0.9966}}{\sqrt{7}} \\ &= 0.6745 \times \frac{0.0034}{2.6458} \\ &= 0.6745 \times 0.0013 \\ &= 0.00087 \end{aligned}$$

$$6\text{P.E} = 6 \times 0.00087 = 0.0052$$

Since  $r > 6\text{P.E}$ , it is significant, i.e. there is correlation between Total Tax Revenue and VAT

### D. t-Test for Significance of an observed sample correlation coefficient

t-test can be used to find if the sample correlation coefficient  $r$  is significant of any correlation between the variables in the population or it is just due to fluctuations of sampling. [source: Research Methodology; P.R.Joshi 2003 p.cit.201]

We have,

Sample size (n)=7,

Sample correlation coefficient (r) = **0.9983**

Null hypothesis H0:  $\rho = 0$ . That is, population correlation coefficient is zero. In other words, variables are uncorrelated in the population.

Alternative hypothesis H1:  $\rho \neq 0$ . That is, population correlation coefficient is not equal to zero. In other words, variables are correlated in the population.

Test Statistic: Under H0, the test statistic is

$$\begin{aligned} t &= \frac{r}{\sqrt{1-r^2}} \times \sqrt{(n-2)} \sim t_{n-2} \\ &= \frac{0.9983}{\sqrt{1-0.9966}} \times \sqrt{(7-2)} \\ &= \frac{0.9983}{0.058317} \times 2.2361 \\ &= 38.13 \end{aligned}$$

Degree of Freedom =  $n-2 = 7-2 = 5$

Tabulated value of t for 5 d.f. at 5% level of significance for two tailed test is 2.571.

Decision: since, the calculated value of t is greater than the tabulated value of t, it is significant and H0 is rejected, which means that the variables are correlated in the population.

#### **E. Average % of VAT on Total Tax Revenue**

Average Total Tax Revenue for 7 years = 101991.72 millions

Average VAT for 7 years = 36104.80 millions

$$\begin{aligned} \therefore \text{Average \% of VAT on Total Revenue} &= \frac{36104.80}{101991.72} \times 100 \\ &= 35.40\% \end{aligned}$$

## Appendix - VII

### Calculation of Correlation, Coefficient of Correlation and t-test Total Indirect Tax Revenue and Value Added Tax

#### A. Correlation

Years	X1(TITR)	X2(VAT)	$x1=(\bar{X1}-X1)$	$x2=(\bar{X2}-X2)$	$x1^2$	$x2^2$	$x1x2$
2004/2005	41,032.90	18,894.63	-33,268.24	-17,210.17	1,106,775,792.70	296,189,951.43	572,552,066.00
2005/2006	43,462.30	21,613.04	-30,838.84	-14,491.76	951,034,052.55	210,011,107.90	446,909,067.96
2006/2007	52,146.44	26,095.60	-22,154.70	-10,009.20	490,830,732.09	100,184,084.64	221,750,823.24
2007/2008	62,067.80	29,815.70	-12,233.34	-6,289.10	149,654,607.56	39,552,778.81	76,936,698.59
2008/2009	82,731.20	39,700.92	8,430.06	3,596.12	71,065,911.60	12,932,079.05	30,315,507.37
2009/2010	114,544.75	54,920.86	40,243.61	18,816.06	1,619,548,145.83	354,044,113.92	757,226,180.38
2010/2011	124,122.58	61,692.85	49,821.44	25,588.05	2,482,175,883.67	654,748,302.80	1,274,833,497.79
<b>N=7 Total</b>	<b>520,107.97</b>	<b>252,733.60</b>	<b>0.00</b>	<b>0.00</b>	<b>6,871,085,126.00</b>	<b>1,667,662,418.56</b>	<b>3,380,523,841.33</b>

$$\bar{X}_1 = X_1/7 = 520,107.97/7 = 74301.14$$

$$\bar{X}_2 = X_2/7 = 252,733.60/7 = 36104.80$$

$$\begin{aligned} \text{Correlation Coefficient } (r_{12}) &= \frac{[\sum X_1 \times X_2]}{[(\sqrt{\sum X_1^2})(\sqrt{\sum X_2^2})]} \\ &= \frac{3,380,523,841.33}{[\sqrt{6,871,085,126.00} \times \sqrt{1,667,662,418.56}]} \\ &= \frac{3,380,523,841.33}{82,892.01 \times 40837.02} \\ &= 0.9987 \end{aligned}$$

### B. Coefficient Of determination

$$\begin{aligned} \text{Coefficient of determination } (r^2) &= (0.9987)^2 \\ &= 0.9973 \end{aligned}$$

### C. Probable Error (PE)

PE used to measure the reliability and test of significance of correlation coefficient.

It is calculated as follows:

$$\begin{aligned} \text{P.E} &= 0.6745 \frac{1-r^2}{\sqrt{n}} \quad \text{where } r = \text{the correlation coefficient and } n = \text{no of paired observations} \\ &= 0.6745 \frac{1-0.9973}{\sqrt{7}} \\ &= 0.6745 \times \frac{0.0027}{2.6458} \\ &= 0.6745 \times 0.0010 \\ &= 0.00068 \end{aligned}$$

$$6\text{P.E} = 6 \times 0.00068 = 0.0041$$

Since  $r > 6\text{P.E}$ , it is significant, i.e. there is correlation between Total Indirect Tax Revenue and VAT

### D. t-Test for Significance of an observed sample correlation coefficient

t-test can be used to find if the sample correlation coefficient  $r$  is significant of any correlation between the variables in the population or it is just due to fluctuations of sampling. [Source: Research Methodology; P.R.Joshi 2003 p.cit.201]

We have,

Sample size ( $n$ ) =7,

Sample correlation coefficient ( $r$ ) =0.9987

Null hypothesis H0:  $\rho = 0$ . That is, population correlation coefficient is zero. In other words, variables are uncorrelated in the population.

Alternative hypothesis H1:  $\rho \neq 0$ . That is, population correlation coefficient is not equal to zero. In other words, variables are correlated in the population.

Test Statistic: Under H0, the test statistic is

$$\begin{aligned}t &= \frac{r}{\sqrt{1-r^2}} \times \sqrt{(n-2)} \sim t_{n-2} \\&= \frac{0.9987}{\sqrt{1-0.9973}} \times \sqrt{(7-2)} \\&= \frac{0.9987}{0.051769} \times 2.2361 \\&= 43.14\end{aligned}$$

Degree of Freedom =  $n-2 = 7-2 = 5$

Tabulated value of t for 5 d.f. at 5% level of significance for two tailed test is 2.571.

Decision: since, the calculated value of t is greater than the tabulated value of t, it is significant and H0 is rejected, which means that the variables are correlated in the population.

#### **E. Average % of VAT on Total Indirect Tax Revenue**

Average Total Indirect Tax Revenue for 7 years = 74301.14 millions

Average VAT for 7 years = 36104.80 millions

$$\begin{aligned}\therefore \text{Average \% of VAT on Total Revenue} &= \frac{36104.80}{74301.14} \times 100 \\&= 48.59 \%\end{aligned}$$

## Appendix - VIII

### Calculation of paired t-test

#### A) Before and after increase of VAT rate :

Null hypothesis ( $H_0$ ):  $\mu_x = \mu_y$  i.e. There is no significant difference between VAT & Revenue mobilization before and after the increment in VAT Rate.

Alternative hypothesis ( $H_1$ ):  $\mu_x < \mu_y$  i.e. There is significant effectiveness in VAT & Revenue mobilization after the increment in VAT Rate.

Calculation of d and  $\bar{S}_d$

Revenues	Before increase (at 10 %) (x) (2004/2005)	After increase at 13 % (y) (2005/2006)	d=y-x	d-d	(d-d) <sup>2</sup>
VAT	18885.40	21613.04	2727.64	204.35	41760.96602
Total Indirect TAX Revenue	41032.9	43462.30	2429.40	-93.89	8814.393225
Total Tax Revenue	54104.7	57430.40	3325.70	802.42	643869.8322
Total Revenue	70122.7	71733.10	1610.40	-912.88	833359.0232
Total			10093.14		1527804.215

We have

$$\bar{d} = \frac{\sum d}{n} = \frac{10093.14}{4} = 2523.29$$

and

$$S_d = \sqrt{\frac{1}{n-1} \sum (d-\bar{d})^2}$$

$$= \sqrt{\frac{1}{4-1} \times 1527804.22}$$

$$= \sqrt{\frac{1527804.22}{3}}$$

$$= \sqrt{509268.07}$$

$$= 713.63$$

Test statistic,

$$t = \frac{\bar{d}}{\frac{S_d}{\sqrt{n}}} = \frac{2523.29}{\frac{713.63}{\sqrt{4}}} = \frac{2523.29}{\frac{713.63}{2}} = \frac{2523.29}{356.82} = 7.07$$

Degree of freedom =  $n-1 = 4-1 = 3$

Level of significance ( $\alpha$ ) = 5 %

Critical Value: The tabulated value of t at 5 % level of significance for one tailed test for one tailed test and for 3 d.f is 2.353

Decision: Since calculated value of t is greater than the tabulated (critical) value of t, the null hypothesis  $H_0$  is rejected and hence the alternative hypothesis  $H_1$  is accepted. Therefore we can conclude that there is significant effectiveness in VAT & Revenue mobilization after the increment in VAT Rate.

### B) Before and after Peoples' Revolution :

Null hypothesis ( $H_0$ ):  $\mu_x = \mu_y$  i.e. There is no significant difference between VAT & Revenue mobilization before and after peoples' revolution.

Alternative hypothesis ( $H_1$ ):  $\mu_x < \mu_y$  i.e. There is significant effectiveness in VAT & Revenue mobilization after people's revolution.

Calculation of d and  $\bar{S}_d$

Revenues	Before peoples Revolution (x) (2005/2006)	After peoples Revolution (x) (2006/2007)	d=y-x	d-d	(d- d)2
VAT	21613.04	26095.60	4482.56	-6227.72	38784527.54
Total Indirect TAX Revenue	43462.30	52146.44	8684.14	-2026.14	4105253.43
Total Tax Revenue	57430.40	71126.73	13696.33	2986.05	8916479.672
Total Revenue	71733.10	87711.20	15978.10	5267.82	27749901.21
Total			42841.13		79556161.85

We have

$$\bar{d} = \frac{\sum d}{n} = \frac{42841.13}{4} = 10710.28$$

and 
$$S_d = \sqrt{\frac{1}{n-1} \sum (d-\bar{d})^2}$$

$$\begin{aligned}
&= \sqrt{\frac{1}{4-1} \times 79556161.85} \\
&= \sqrt{\frac{79556161.85}{3}} \\
&= \sqrt{26518720.62} \\
&= 5149.63
\end{aligned}$$

Test statistic,

$$t = \frac{\bar{d} - 0}{\frac{S_d}{\sqrt{n}}} = \frac{10710.28 - 0}{\frac{5149.63}{\sqrt{4}}} = \frac{10710.28}{2574.82} = 4.16$$

Degree of freedom = n-1 = 4-1 = 3

Level of significance ( $\alpha$ ) = 5 %

Critical Value: The tabulated value of t at 5 % level of significance for one tailed test for one tailed test and for 3 d.f is 2.353

Decision: Since calculated value of t is greater than the tabulated (critical) value of t, the null hypothesis  $H_0$  is rejected and hence the alternative hypothesis  $H_1$  is accepted. Therefore we can conclude that there is significant effectiveness in VAT & Revenue mobilization after peoples' revolution.

### C) Before and after leading government by Maoist :

Null hypothesis ( $H_0$ ):  $\mu_x = \mu_y$  i.e. There is no significant difference between VAT & Revenue mobilization before and after leading government by Maoist.

Alternative hypothesis ( $H_1$ ):  $\mu_x < \mu_y$  i.e. There is significant effectiveness in VAT & Revenue mobilization after leading government by Maoist.

#### Calculation of d and $\bar{S}_d$

Revenues	Before Govt by Maoist (x) (2008/2009)	Before Govt by Maoist (x) (2009/2010)	d=y-x	d-d	(d-d) <sup>2</sup>
VAT	39700.92	54920.86	15219.94	-15466.33	239207441
Total Indirect TAX Revenue	82731.20	114544.75	31813.55	1127.28	1270754.562
Total Tax Revenue	117051.90	156294.90	39243.00	8556.73	73217585.51
Total Revenue	143474.50	179943.10	36468.60	5782.33	33435311.32
Total			122745.09		347131092.4

We have

$$\bar{d} = \frac{\sum d}{n} = \frac{122745.09}{4} = 30686.27$$

and

$$S_d = \sqrt{\frac{1}{n-1} \sum (d - \bar{d})^2}$$

$$= \sqrt{\frac{1}{4-1} \times 347131092.4}$$

$$= \sqrt{\frac{347131092.4}{3}}$$

$$= \sqrt{115710364.10}$$

$$= 10756.88$$

Test statistic,

$$t = \frac{\bar{d}}{\frac{S_d}{\sqrt{n}}} = \frac{30686.27}{\frac{10756.88}{\sqrt{4}}} = \frac{30686.27}{\frac{10756.88}{2}} = \frac{30686.27}{5378.44} = 5.71$$

Degree of freedom =  $n-1 = 4-1 = 3$

Level of significance ( $\alpha$ ) = 5 %

Critical Value: The tabulated value of t at 5 % level of significance for one tailed test for one tailed test and for 3 d.f is 2.353

Decision: Since calculated value of t is greater than the tabulated (critical) value of t, the null hypothesis  $H_0$  is rejected and hence the alternative hypothesis  $H_1$  is accepted. Therefore we can conclude that there is significant effectiveness in VAT & Revenue mobilization after leading the Govt. by Maoists.

#### D) Before and after Tax Participation Year :

Null hypothesis ( $H_0$ ):  $\mu_x = \mu_y$  i.e. There is no significant difference between VAT & Revenue mobilization before and after tax participation year.

Alternative hypothesis ( $H_1$ ):  $\mu_x < \mu_y$  i.e. There is significant effectiveness in VAT & Revenue mobilization after tax participation year.

Calculation of  $\bar{d}$  and  $\bar{S}_d$

Revenues	Before tax participation(x) (2008/2009)	After tax participation(x) (2009/2010)	$d=y-x$	$d-\bar{d}$	$(d-\bar{d})^2$
VAT	39700.92	54920.86	15219.94	-15466.33	239207441
Total Indirect TAX Revenue	82731.20	114544.75	31813.55	1127.28	1270754.562
Total Tax Revenue	117051.90	156294.90	39243.00	8556.73	73217585.51
Total Revenue	143474.50	179943.10	36468.60	5782.33	33435311.32
Total			122745.09		347131092.4

We have

$$\bar{d} = \frac{\sum d}{n} = \frac{122745.09}{4} = 30686.27$$

and

$$S_d = \sqrt{\frac{1}{n-1} \sum (d-\bar{d})^2}$$

$$= \sqrt{\frac{1}{4-1} \times 347131092.4}$$

$$= \sqrt{\frac{347131092.4}{3}}$$

$$= \sqrt{115710364.10}$$

$$= 10756.88$$

Test statistic,

$$t = \frac{\bar{d}}{\frac{S_d}{\sqrt{n}}} = \frac{30686.27}{\frac{10756.88}{\sqrt{4}}} = \frac{30686.27}{\frac{10756.88}{2}} = \frac{30686.27}{5378.44} = 5.71$$

Degree of freedom =  $n-1 = 4-1 = 3$

Level of significance ( $\alpha$ ) = 5 %

Critical Value: The tabulated value of t at 5 % level of significance for one tailed test for one tailed test and for 3 d.f is 2.353

Decision: Since calculated value of t is greater than the tabulated (critical) value of t, the null hypothesis  $H_0$  is rejected and hence the alternative hypothesis  $H_1$  is accepted.

Therefore we can conclude that there is significant effectiveness in VAT & Revenue mobilization after tax participation year.

**E) Before and after Tax Implementation Year :**

Null hypothesis (H<sub>0</sub>):  $\mu_x = \mu_y$  i.e. There is no significant difference between VAT & Revenue mobilization before and after tax implementation year.

Alternative hypothesis (H<sub>1</sub>):  $\mu_x < \mu_y$  i.e. There is significant effectiveness in VAT & Revenue mobilization after tax implementation year.

Calculation of d and  $\bar{S}_d$

Revenues	Before tax implementation(x) (2009/2010)	After tax implementation(x) (2010/2011)	d=y-x	d-d	(d- d)2
VAT	54920.86	61692.85	6771.99	-6405.20	41026522.99
Total Indirect TAX Revenue	114544.75	124122.58	9577.83	-3599.36	12955356.42
Total Tax Revenue	156294.90	172777.91	16483.01	3305.83	10928478.93
Total Revenue	179943.10	199819.01	19875.91	6698.73	44872916.63
Total			52708.74		109783274.96

We have

$$\bar{d} = \frac{\sum d}{n} = \frac{52708.74}{4} = 13177.19$$

and 
$$S_d = \sqrt{\frac{1}{n-1} \sum (d-\bar{d})^2}$$

$$= \sqrt{\frac{1}{4-1} \times 109783274.96}$$

$$= \sqrt{\frac{109783274.96}{3}}$$

$$= \sqrt{36594424.97}$$

$$= 6049.33$$

Test statistic,

$$t = \frac{\bar{d}}{\frac{S_d}{\sqrt{n}}} = \frac{13177.19}{\frac{6049.33}{\sqrt{4}}} = \frac{13177.19}{\frac{6049.33}{2}} = \frac{13177.19}{3024.67} = 4.36$$

Degree of freedom =  $n-1 = 4-1 = 3$

Level of significance ( $\alpha$ ) = 5 %

Critical Value: The tabulated value of t at 5 % level of significance for one tailed test for one tailed test and for 3 d.f is 2.353

Decision: Since calculated value of t is greater than the tabulated (critical) value of t, the null hypothesis  $H_0$  is rejected and hence the alternative hypothesis  $H_1$  is accepted. Therefore we can conclude that there is significant effectiveness in VAT & Revenue mobilization after tax implementation year.