

# CHAPTER-I

## INTRODUCTION

### 1.1 General Background

VAT is a modern tax system which is imposed on the value added in each economic activity from production to consumption. It means VAT is charged to value addition done to prepare the final production.

It was first recommended by Wilhelm Von Siemens, in 1919, for Germany to replace the multistage sales tax. However, this development was only theoretical. The concept of VAT was developed further in 1949 by a tax mission to Japan led by Prof. Carl S. Shoup. In modern day VAT appeared in France in 1954 A.D. It covered industrial sector then extended to the wholesale level.

Government of Nepal introduced VAT system in 1997. Although the VAT Act was passed in 1995, VAT came into full operation in 1998. VAT was justified in the context of increasing that was of government fiscal imbalances and needed for extra revenue mobilization through an efficient tax system. There are six headings under the VAT as included in the budget speech. They are production, import, sales and distribution, contract and consultancy, tourism industries. VAT rate was changed from 10% to 13% in 2005. According to Budget Speech 2010, Nepalese government's estimation of revenue from VAT was NRs. 51.56 million. Thus, the study of VAT has become a matter of great concern these days.

The "Value Added" to a product by a business is the sale price charged to its customer, minus the cost of materials and other taxable inputs. A VAT is like a sales tax in that ultimately only the end consumer is taxed. It differs from the sales tax in that, with the latter, the tax is collected and remitted to the government only once, at the point of purchase by the end consumer. With the VAT, collections, remittances to the government, and credits for taxes already paid occur each time a business in the supply chain purchases products.

Maurice Lauré, Joint Director of the French Tax Authority, the *Direction générale des impôts*, was first to introduce VAT on April 10, 1954, although German industrialist Dr. Wilhelm von Siemens proposed the concept in 1918. Initially directed at large

businesses, it was extended over time to include all business sectors. In France, it is the most important source of state finance, accounting for nearly 50% of state revenues.

Personal end-consumers of products and services cannot recover VAT on purchases, but businesses are able to recover VAT (input tax) on the products and services that they buy in order to produce further goods or services that will be sold to yet another business in the supply chain or directly to a final consumer. In this way, the total tax levied at each stage in the economic chain of supply is a constant fraction of the value added by a business to its products, and most of the cost of collecting the tax is borne by business, rather than by the state. Value Added Taxes were introduced in part because they create stronger incentives to collect than a sales tax does. Both types of consumption tax create an incentive by end consumers to avoid or evade the tax, but the sales tax offers the buyer a mechanism to avoid or evade the tax-persuade the seller that he (the buyer) is not really an end consumer, and therefore the seller is not legally required to collect it. The burden of determining whether the buyer's motivation is to consume or re-sell is on the seller, but the seller has no direct economic incentive to collect it. The VAT approach gives sellers a direct financial stake in collecting the tax, and eliminates the problematic decision by the seller about whether the buyer is or is not an end consumer (Khanal, 2010).

In the least developed countries like Nepal, the role of indirect tax is seen to be more important. Of the Indirect taxes, Value Added Tax is the most recent innovation in the field of taxation. Actually, VAT is considered one of the most important tax reforms of the second half of the twentieth century. It is a scientific tax system, which was first introduced in 1954 in France. The concept of VAT was developed for first time by Dr. Wilhelm V. Siemens in Germany in 1919. VAT is a family member of indirect tax. Indirect tax is primarily so called because the real burden of tax under this type can be shifted forward to the consumers or in other words, it is not borne directly by the person who pays it. From the experience of VAT in several countries, many economist and policy makers have agreed on or VAT is probably the best indirect tax. It is outstanding that it gained such as a remarkable popularity in such a short span of time. It is also regarded as the backbone of income tax system in Nepal. The parliament of Nepal enacted "value Added Tax Act, 1995(2052)" in 1995 and VAT regulation was made in 1996. Although the Act was passed in 1995, its implementation was delayed due to political instability and strong position from the business community.

VAT is the important tax innovation on the second half-twentieth century. VAT is a scientific tax system. Since late 1960s and now this tax has become one of the main stays of the tax system in over the world 130 countries. In south Asia Pakistan adopted a VAT in 1990 and Bangladesh and Silence have 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 is limited in scope it covers only a half of the revenue collected. An India has just adopted full VAT since the year 1999. Nepal is considering a VAT since 1992. The first Intension to move toward VAT could be found in Eighth plan (1992-97). A commitment to implement a VAT in Nepal was made in 1995/96 budgets and it was scheduled to come into effect from April 1997.

The concept of VAT in Nepal was introduced in early 1990s.Nepal government indicated its intention to introduce VAT in the eighth plan subsequently the finance minister declared to introduced a two -tier sales tax system to make the base of implementing VAT from the fiscal year 1992/93. A VAT task force was created in 1993 under the financial assistance of USAID in order to make necessary preparation for the introduction of VAT. The VAT task force prepared the draft of VAT legislation.

The parliament of Nepal enacted “Value Added Tax Act 1995{2052}”, subsequently VAT regulation was made in 1996; although the act was passed in 1995 its implementation was delayed due to political instability and strong opposition from business community. VAT with single rate of 10% has been fully implemented with effect from 16 November 1997.It has replaced sales tax, hotel tax, contract tax and entertainment tax. VAT is a new tax system for Nepal, VAT has been justified in the light of government fiscal imbalance and need for extra revenue mobilization through an efficient tax system. The government of Nepal has been increased VAT to 13% with its effect from 15 February 2004 (Magh ,1 ,2061). The Value Added Tax its name implies a tax in the value added to a commodity or service. Its special characteristics being that it falls on the value added at each stage of production and distribution (Khadka, 2003).

## **1.2 Statement of the Problem**

Nepalese government considered various issues which were previously raised and most of them were solved before implementation a VAT. However "Resistance from the business community, ignorance of general people and the lack of full support and commitment from politicians and government officials forced the authority responsible

for the implementation VAT to make compromise in various aspects of VAT which has weakened the process of its implementation right from the beginning.

The expensiveness of VAT implementation could be defective in Nepalese context because it requires more manpower, expensive computer difficult to work business and only total population of 40% are educated among which only 25% retailers use to keep up their amount transactions properly (Nepal Chamber of Commerce, 1997).

Due to high custom duty, administrative procedure and with the objective of evading tax, the imports under invoicing the goods and accordingly fornicates the invoices right up of the level of retail sale and this make it difficult to collect the actual tax. While several tax pays have been maintaining two set of amounts issuing two types of invoices collecting VAT from the buy but not depositing them to the treasury and collecting VAT without being registered seen as a major problem in current scenario similarly open border with neighboring country is major problem with VAT. Due to which goods are coming through illegal means and government lose of revenue.

Another problem in the principle of VAT due to political instability and frequent changes in the government VAT could not be fully implemented. Therefore, strong political commitment with political stability is required for the effective implementation of VAT. For the limited business and employees and the influential people backing them, including politician who have been taking undue advantage from the non-transparent tax system will never appeal to them. Since those who opposed VAT took advantage of this situation it proved even more difficult.

Additional problem have emerged owing to the lack of sufficient awareness among the tax payer regarding the importance of issuing invoice and the lack of Necessary initiation and effectiveness in the tax administration in making the issuance of invoice compulsory. It need to preserve and develop to consumers to demand the invoice on the purchase and sellers to issue invoice on the sale of goods is key for the successful implementation of VAT in retail level is seen as major problem.

The following research questions have been focused in this study:

- ) What is the trend of indirect tax revenue collection in Nepal?
- ) How has VAT been contributing to GDP in Nepal?
- ) Which are the major problems faced by the taxpayers and tax administrators in Nepal?

- ) What are the current issues of VAT implementation in Nepal?

### **1.3 Objectives of the Study**

The main objective of this study is to explore the major existing issues of VAT in Nepal. Some specific objectives of the study are:-

- ) To analyze the trend of indirect tax revenue structure after the implementation of VAT.
- ) To examine the contribution of VAT to GDP and total tax revenue.
- ) To identify the major problems in effective implementation of VAT system and suggest possible corrective measures.
- ) To explore the major issues of VAT implementation in Nepal.

### **1.4 Significance of the Study**

VAT can play an important role in the process of development. Developing countries like Nepal need higher revenue to fulfill various responsibilities. VAT provides various financial needs, if it is properly implemented. More revenue collection is possible through VAT by broadening its tax base, introducing new area into VAT net, reducing tax evasion through good management. For the successful implementation of VAT, a proper co-ordination between government bodies and business community is essential.

Nepalese government has already implemented VAT for achieving ultimate objectives of economic development and acceleration growth rate of economy through expanding the tax net without any distortions, promoting exports and making the tax system more optimistic. During the last 14(fourteen) years of VAT implementation, government has made a great effort to make VAT more effective and productive. However, VAT was subject of a strict opposition from the business community in initial stage of implementation. Later there were some corrections in VAT rules and regulation and then slowly business community accepted the system and further demanded it to extend the retail level so that all the businessman firms will be treated equally. In such situation, internal resource mobilization should be strengthened to overcome resource gap problem. The experience shows that successfully implemented VAT will have positive impact on the economy. For strengthening internal resource mobilization of Nepal, the government has already adopted VAT administration and policy, according to the reform policy and programmed noted in the eight five-year plans (Adhikari, 2003).

Despite more than 14 years of VAT implementation, many Nepalese people are unknown about various aspects of it. The implementation of VAT is not devoid of challenges yet. To establish this tax on a completely successful scale and to make it apart of the daily life of the people requires much bigger efforts. VAT system is extremely challenging in a growing economy like Nepal. Resistance from the business community, ignorance of general people, lack of full support and commitments from the politicians and government officials forced the authority responsible for implementing VAT to make compromises on various aspects of VAT which has weakened the process of its implementation right from the beginning. The attitude of businessmen and tax administration also appear hostile to the effective implementation of VAT in Nepal. The culture of doing business without maintaining proper books of accounts or maintaining multiple sets of books of accounts have made implementation of VAT difficult. Similarly the lack of issuing and receiving the actual valued VAT invoices, certain administrative weakness and awareness of customers are the major problems of successful implementation of VAT. So this study basically concentrates on administrative structure of VAT, major issues of VAT in Nepal, the importance of VAT, the major existing problems of effective implementation of VAT in Nepal and provided suggestion to making VAT effectiveness (Bhattraï & Koirala, 2009).

In this regard, this study carries a great significance to mobilize additional resources through improved and successful implementation of VAT and hence make the country self -dependent to some extent instead of the rapidly persisting resource gap.

### **1.5 Limitations of the Study**

There are some limitations in this study which are as follows:

- ) This study is concentrated about the study of Value Added Tax in Nepal.
- ) It is not a complete study of the whole tax system in Nepal.
- ) Mainly secondary data will use.
- ) The views of respondents are collected only in the Kathmandu Valley.
- ) The study is confined to Nepalese laws, acts, rules, ordinance, regulations and circular to income tax.

### **1.6 Organization of the Study**

The whole study has been divided into five major chapters which are as follows:

**Chapter-I: Introduction:** This is the first or introductory part of the research which consists of background of the study, brief description about Value Added Tax, statement of the problem, objectives of the study, needs and significance of the study, review of literature and limitations of the study.

**Chapter-II: Review of related literature:** This chapter is related to review of conceptual as well as empirical literature.

**Chapter-III: Research methodology:** This chapter provides the guidelines to the research which contains research design, data collection procedure and presentation and analysis tools and techniques.

**Chapter-IV: Data presentation and analysis:** This is the main body of the research which is related to collection and analysis of relevant data using various financial as well as statistical tools.

**Chapter-V: Summary, conclusion and recommendations:** This is the conclusion part of the research which provides summary of the study, conclusion of the study and recommendations for further improvement.

Finally, bibliography and appendices have also been incorporated.

## CHAPTER-II

### REVIEW OF RELATED LITERATURE

#### 2.1 Conceptual Framework

##### 2.1.1 VAT

VAT has become the main source of revenue of the government in the recent years. Value Added Tax is the latest innovation in the field of taxation. VAT is considered as the reform tax system of the 21st century, which has already been implemented popularly in more than 135 countries in the world. VAT is multi-staged commodity and service based tax which is levied on the value added of business at different stage of production and distribution. It is imposed on value of goods and services.

Different experts and institutions have defined the meaning of VAT according to their own interpretations. Some of them are as follows:

*Khadka, (1997) defines VAT as:* 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.

*Bhattraï & Koirala (2009) defines VAT as:* VAT is a general consumption tax assessed on the value added to goods and services. It is a general tax that applies, in principle, to all commercial activities involving the production and distribution of goods and the provision of services. It is a consumption tax because it is borne ultimately by the final consumer. It is not a charge on companies. It is charged as a percentage of prices, which means that the actual tax burden is visible at each stage in the production and distribution chain. It is an indirect tax, in that the tax is collected from someone other than the person who actually bears the cost of the tax (namely the seller rather than the consumer). As VAT is intended as a tax on consumption, exports (which are, by definition, consumed abroad) are usually not subject to VAT.

*Silwal (1988),* Most of the developing countries are now engaged in the study of VAT very seriously and most of the economists of all countries have realized that the VAT only is the source of tax revenue which has very high tax potential yield among the existing tax systems. It will not be an exception for Nepal. VAT is said to be consumption tax by when the taxable good and services are consumed will ultimately pay the tax. If

any goods become spoiled before consuming, it will not be liable to tax. The features of tax are stated:

- ) Input tax credit (Tax paid on earlier stages)
- ) Neutrality (VAT does not offer unnecessary burden of tax in any sector)
- ) Compulsory invoice system (For its good operation),
- ) Wide tax coverage (Covering from importing & producing to retailing stage, products, services, and others) similarly possibility of tax evasion and cheating are also minimized.

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.

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.

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 improved version of sales tax (*IRD & VAT Project, 2001*). As clarified by Mr. Adhikari, It is also an improved and reformed sales tax (*Adhikari, 2003*). In sales tax, there is no provision for input tax credit, which means that the end consumer may pay tax on an input that has already been taxed previously. This is known as cascading and leads to increases consumer tax and price levels, which increases the rate of evasion and can be detrimental to economic growth. In contrast, the VAT that has been levied in the previous level can be deducted while paying taxes on the later levels. It has a special system where a person trying to deceive tax will be caught on either one of the subsequent levels. Therefore, the trend of tax evasion is highly discouraged.

## 2.1.2 Types of VAT

Where there is discussion about value added tax, we normally bear in mind the broad based consumption type VAT. However the value added tax can be basically classified into three categories namely consumption types VAT, income type VAT and production type VAT. The difference among the types of VAT depends upon the treatment of capital goods purchased from other firms and the treatment of depreciation for the purpose of tax base (Value Added). That is why discussion is concentrated within the treatment of these two items for all types of VAT.

### 2.1.2.1 Consumption Type VAT

If all capital goods (investments) brought from other firms are excluded from the tax base (Value Added) in the year of purchase but the depreciation is included in the tax base, it is known as consumption type VAT. It can be expressed in the following equation:

$$\text{Value Added} = \text{Wages} + \text{Interest} + \text{Rents} + \text{Depreciation} + \text{Profit} - \text{Capital Goods purchased from outside (in the year of purchase)}$$

The above equation clearly shows that the tax base is consumption because investments are free from taxation. Under this type of VAT investment are encouraged because it excluded from tax base. Similarly, imports are taxed whereas exports are relieved from tax. Thus, tax base for the nation under this type is equal to the domestic consumption the country. Nepal has adopted it with tax credit mechanics from very beginning (*Khadka, 1997*).

### 2.1.2.2 Income Type VAT

Under the income type VAT, capital goods purchased from the outside suppliers are included in the tax base in the years of purchase but depreciation is excluded from the tax base. The following equation may be presented to make clear ideas about the tax base under it.

$$\text{Value Added} = \text{Wages} + \text{Interests} + \text{Profits} + \text{Capital goods purchased from Outside (in the years of purchase)}$$

Or,

$$\text{Value Added (Tax base)} = \text{Sales} - \text{Purchase (Excluding purchase of capital goods from outside in the year of purchase)} - \text{Depreciation.}$$

The above equation clearly shows that the value added is equal to the consumption plus net investment. It means the tax base for the nation is the Net National Income that comprises the consumption and net investment of all firms within the country (*Khadka, 1997*).

### **2.1.2.3 Product Type VAT**

The production type VAT includes capital goods purchase from the other firm in the tax base in the year of purchase and also includes depreciation in the tax base. It can be expressed in the following equation.

*Value Added = Wages + Interests + Rent + Depreciations + Profits + Capital goods purchased from outside (in the year of purchase).*

*Or,*

*Value Added (tax base) = Sales - Purchases (Excluding purchase of capital goods from outside in the years of purchase)*

The above mentioned equation obviously shows that the tax is imposed both on consumption and gross investment. This means that value added by all firms within the country constitute the Gross National Product (GNP). That is why; the tax base of this type of VAT is conceptually equal to the GNP. Thus, this type of VAT is also termed as Gross national product type VAT.

Among these three types of VAT, the consumption variant is the most superior form of VAT and is universally practiced. The reasons for the popularity of this type are as follows:

- ) This variant doesn't affect decision regarding investment and growth since it relieves investment from any tax burden.
- ) Likewise, the consumption variant is attractive from point of view of tax administration as there is no need to distinguish between the purchase of intermediate goods and capital goods under this variant which is necessary under the other two variants. Unlike the consumption variant, the other two variants stimulate firms to classify their purchases of capital goods as intermediate goods leading to complication for the administration.
- ) Furthermore, the consumption variant is more attractive than the income variants from the consideration of foreign trade, because the consumption variants are

compatible with the destination principle of taxation, which has been used by many countries. Under the destination principle, the tax base is consumption and hence export is relieved completely from VAT.

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

### **2.1.3 Methods of Computation of VAT**

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

#### **2.1.3.1 Addition Method**

Under this method, the tax base is obtained by adding the incomes produced by the firm or by adding the payment made by the firm to the factors of production employed in turning out the product, such as wages, interest, rent, royalties and profits. This method is appropriate for the income type of VAT that includes the rewards to all the factors of production in its base. Because all the payments made for the factors of production have to be added, it creates complexities in calculating them in practice. Virtually no country has based the additive method, however, Argentina and Israel have used it in selected economic activities, such as banking and finances, where value of inputs and outputs are difficult to measure (*Khadka, 1997*).

Thus, VAT under additional method is the function of the total factor payment as given by:

$$VAT = f(W+R+I+P)$$

Where,

$W = \text{Wage}, R = \text{Rent}, I = \text{Interest}, P = \text{Profit}$

### 2.1.3.2 Subtraction Method

Under this method, cost of production is deducted from the sales. In other words, value added is determined as net turnover that is obtained by subtracting the cost of materials from sales proceeds. It is much closed to consumption type VAT. Theoretically, it looks simple and early but it is very difficult to compute especially where multiple rates of VAT exist. Problems like ascertaining tax value in an accounting period may also arise. Value added is obtained by subtracting purchase of produced goods from the figure of sales during the period, as given in the functional form by,

$$VAT = f(S_v - P_v)$$

Where,

$S_v = \text{Sales Value,}$

$P_v = \text{Purchase Value}$

Above two methods are called direct methods because value added is computed directly either by adding the payments made by the firms to the factors of production or by subtracting the cost of production from sale. These both methods of direct calculation can not supply the information needed to compute precisely the export rebate or the import compensating tax when there is not uniform rate to all stages of value added of all goods and services (*Khadka, 1997*).

### 2.1.3.3 Tax Credit Method

Tax credit method is also known as the invoice method and uses an indirect subtraction technique to compute the tax liability. Value added as such never calculated at all. In this method, but the effect is exactly the same as if the figure was calculated and the tax rate applied. Since, the firm deducts the amount of the tax paid on its purchases during the period from the figure calculated by applying the tax rate to its figure of taxable sales for the period. Under this method taxpayers are allowed to subtract the taxes already paid by the supplier and passed on to them from the gross tax liability, which is levied on the total value of their sales (*Khadka, 1997*).

Thus, in contrast to the subtraction method, which deducts purchases from sales and levies taxes on the difference, tax on purchases is subtracted form the tax on sales under the tax credit method.

Hence, net tax liability is given by:

$$VAT = f(Outputs - Inputs)$$

Where,

*Outputs* = Tax collection from Sales and

*Inputs* = Tax paid on Purchase

Among the above three method of computing VAT, the tax credit method is widely favored in the countries. The invoice method is used generally in European countries. The tax credit method is so superior to the other method in terms of application and enforcement as well as adaptability to various rates modification that is now universally employed. The methods of calculating VAT liability under the different methods are shown in the table (table 2.1) below:

**Table 2.1**

**Calculation of VAT Liability by Different Methods (13% VAT)**

*Figure in Rs.*

Detail	Stages of production; and distribution			
	Manufacture	Wholesaler	Retailer	Total
<b>A. Addition Method</b>				
a. Wages	2400	400	200	3000
b. Rent	800	600	400	1800
c. Interest	200	100	100	400
d. Profit	600	200	100	900
e. Value added (a+b+c+d)	4000	1300	800	6100
f. VAT liability (13% of e)	520	169	104	793
<b>B. Subtraction Method</b>				
a. Sales	10000	11300	12100	33400
b. Purchase	6000	10000	11300	27300
c. Value added (a-b)	4000	1300	800	6100
d. VAT liability(13% of c)	520	169	104	793
<b>C. Tax Credit Method</b>				
a. Sales	10000	11300	12100	33400
b. Tax on sales (13%)	1300	1469	1573	4342
c. Purchase	6000	10000	11300	27300
d. Tax on purchase (13%)	780	1300	1469	3549
e. Net VAT liability(b-d)	520	169	104	793

*Note: All sales and purchases are exclusive of tax and the figures are assumed.*

Among three methods, the tax credit method is much better than other. It has following major benefits over the other two types of VAT computation.

- ) In the tax credit method, tax liability is attached to transaction that makes it legally and technically superior.
- ) Tax collection is easy.
- ) Cross checking is possible.
- ) It provides the benefits catch up effect that makes under evaluation and tax evasion impossible.
- ) There will be no loss of revenue due to the exemptions granted to the small traders.
- ) It never demands for the calculation of value-added total tax.
- ) Liability entirely depends on the rate on the last stage, so rate differentiation is possible for the same revenue yields.

Calculation of VAT liability under tax credit method is described in detail below:

**Table 2.2**  
**Calculation of VAT Liabilities by Tax Credit Method**  
**(VAT Rate 13%)**

*In Rs. thousand*

Particular	Stages of production and distribution			
	Farmer	Manufacturer	Wholesaler	Retailer
Type of production	Sugarcane	Sugar	Sugar	Sugar
(a) Purchase	0	200	400	450
(b) VAT paid on purchase	0	26	52	58.5
(c) Sales value	200	400	450	510
(d) Gross VAT liability on sales (@ 13% on (d))	26	52	58.5	66.3
(e) Net VAT liability (d-b) or VAT paid in each stage	(26-0)=26	(52-26)=26	(58.5-52)=6.5	(66.3-58.5)=7.8
Actual sales price	22 6	452	508.5	576.3

*Note: Figure is estimated arbitrarily and both the sales and purchase value exclude tax liability.*

Here, for the sake of simplicity, the purchase value of the farmer is assumed zero as shown in the table 4.2 Each seller calculates the gross tax liability by applying the

given tax rate to his sales value and then gets net VAT liability by subtracting the amount of VAT liability paid by the seller at different stages equals to the gross VAT liability on sales with the same VAT rate, so far as tax credit chain is not broken. Unlike the remaining two methods, there will be no change in total VAT liability. Two methods in the tax credit method, there will be no change in total VAT liability by the rate differentiation in earlier stages.

#### **2.1.4 Principles of VAT**

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

##### **2.1.4.1 Original Principle**

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

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

#### **2.1.5 Characteristic of VAT**

The main characteristics of VAT are it is a form of indirect taxation; It is broad based tax as it covers the value added at each commodity by a firm during all stages of production and distribution. It substitutes sales tax, hotel tax, contract tax and entertainment tax. It avoids cascading effect existed in sales tax and contains catch up

effects. It is based on self- assessment system and provides the facility of tax credit and tax refunds.

### **2.1.6 Origin and Development of VAT**

Tax is collected by government to meet the need of budget. Among the various types of tax, the sales tax is one of the major sources. VAT is the most scientific system of sales tax. In the early days, the tax from the consumption and production is collected as sales tax. But now, it is almost completely replaced by the VAT.

In the history of Taxation value added tax is the latest and the emerging tax. Value added approach was discussed as early in 1918. However, this tax was first recommended by William von Simens in 1919, in Germany replaced Simens in 1919 in Germany to replaced the multi stage turnover tax in order to avoid the undesirable particularly cascading and vertical integration of the later tax. The VAT proposal was seriously considered by the then German government but as the tax was new and through to be complicated. It decided to reduce the rate of a improved from the turnover tax in the literature "The improvement consisted in the subtraction of previous outlays from taxable sales with the result that the tax base of each firm would be reduced to the value which it added to the product (*Regmi, 1996*).

In 1921, VAT was suggested by Professor Thomas S. Adams for the United State of America. Similarly, proposals are periodically made to have the federal government to adopt a VAT either as a supplementary revenue sources or as replacement of some taxes i.e. parole or corporate income tax in America in 1953 the State of Michigan enacted a form of VAT as a compromise between groups, seeking and opposing a state corporation income tax. The firm was required to calculate Valued Added and applies the rate to this figure, rather than using the tax credit method regarding the tax as a change for privilege of business and, it was replaced by the corporate income Tax.

A mission led by Professor Coul S. Shoup proposed a value added tax for Japan and developed its broad structure. This mission suggested the Fuka Kaci Zie (VAT). For Japan in order to avoid the undesirable and unintended effects of the then Japanese enterprises and turnover taxes, the tax was considered very seriously. It was decided by the Japanese government not to introduce it promptly, showing the cause of further study. Although, the Michigan state of USA introduced a limited feature of VAT, the tax was not introduced by any country till 1953(*Due, 1997*).

In the real practice France launched the value added tax. The term value added tax on its origin to France phase tax *Aur la Value Ajoutec*. The father of the modern VAT is *Mc Maurice Lauer* who in his capacity as an official of French Ministry of Finance developed the French Levy. The VAT adopted in France was the result of the modification of the French production tax. The change involved two elements.

- ) Extension of the tax through wholesale level (until 1968) before Jumping to retailer level.
- ) Exclusion of capital equipment on a current basis instead of materials and parts alone.

Thus, the French Levy of this tax initially replaced the turnover tax, converging industrial sector and limited up to the wholesale level. Despite this pioneer work, VAT could not cross to the boundary of France until 1959(*Sullivan, 1995*).

The speed of introduction VAT was geared up in early sixties, while Ivory Coast Followed France by adopting it in 1960 and Senegal in 1967. The success of France Levy and the realization that the cascade type multiple stage taxes (turnover taxes) were incompatible with European Common Market Lead the Financial and Fiscal Committee of the European Economic Community to recommend in 1962 that all member countries shift to the VAT and it was approved by EC Council of Minister. They considered VAT as a standard form of sales tax. Brazil and Denmark introduced VAT in 1967 and France extended it through retail level in 1968, while Germany followed the route in the same year by adopting VAT through retail level and Luxembourg and Sweden in 1969 (*Khadka, 1996*).

The pace of VAT further accelerated in 1970 and after while its adoption as a requirement of member in EC has given the great prestige and has estimated in other countries. Rapid spread in subsequent year was primarily the product of the evils of the turnover tax, which the EC countries previously used. Belgium and Ireland coincided in the flow of adopting VAT in 1971 and 1972 respectively Austria, Bolivia, Italy, United Kingdom and Vietnam pioneered in the move, being the First country in the Asian region and United Kingdom imposed the tax as the became a member of the EC. Despite a stagnant in 1974, the tax remained explaining as Chile, Argentina, Costa Rice, Nicaragua and Colombia introduced VAT in 1975. Honduras Israel and Peru in 1976, and followed

the line by South Korea and Panama in 1977 meanwhile, the sixth EC VAT directive of 1977 step up a common VAT structure (*Manual, 1992*).

The continuous flow of adopting VAT stopped in 1978 and 1979 and started to move slowly from 1980, while Mexico Culminated it at same years and by people republic of China in 1984 while Indonesia and Turkey adopted VAT in 1985.

**Table 2.3**

**Implementation of VAT in Different Countries**

<b>Serial</b>	<b>Name of country</b>	<b>Year</b>
1.	France	1954 A.D.
2.	Ivory Coast	1960 A.D.
3.	Senegal	1961 A.D.
4.	Brazil & Denmark	1967 A.D.
5.	Germany	1968 A.D.
6.	Nether land & Sweden	1969 A.D.
7.	Ecuador, Luxembourg & Norway	1970 A.D.
8.	Belgium	1971 A.D.
9.	Ireland & Uruguay	1972 A.D.
10.	Australia, Bolivia, Italy, Vietnam & UK	1973 A.D.
11.	Costa Rica, Nicaragua, Chile, Argentina & Colombia	1975 A.D.
12.	Honduras, Isarel & Peru	1976 A.D.
13.	South Korea & Panama	1977 A.D.
14.	Maxico	1980 A.D.
15.	Haiti	1982 A.D.
16.	Guatemala	1983 A.D.
17.	China	1984 A.D.
18.	Indonesia & Turkey	1985 A.D.
19.	Morocco, New Zealand, Niger, Portugal, Spain & Taiwan	1986 A.D.
20.	Grenada & Greece	1987 A.D.
21.	Hungary, Philippines & Tunisia	1988 A.D.
22.	Japan and Malawi	1989 A.D.
23.	Iceland, Kenya, Pakistan, Trinidad & Tobago	1990 A.D.
24.	Bangladesh, Benin, Canada, Jamaica, Mali, South, Africa &	1991 A.D.

	Estonia	
25.	Tajikistan, Paraguay, Belorussia, Algeria, Fiji, Thailand, Ukraine, Cyprus, El-Salvador, Moldova, Kazakhstan, Kyrgyzstan, Russia, Dominican Republic, Uzbekistan	1992 A.D.
26.	Burkina Faso, Poland, Romania, Czech Republic, Slovakia, Venezuela, Turkmenistan, Azerbaijan, Armenia Georgia	1993 A.D.
27.	Bulgaria, Finland, Lithuania, Singapore, West Samoe, Congo Niger & Madagascar	1994 A.D.
28.	Gabon, Ghana, Swaitzerland, Malta, Latvia, Liechtenstein Mauritania, Togo & Zambia	1995 A.D.
29.	Albania, Belize, Uganda & Guinea	1996 A.D.
30.	Barbados & Nepal	1997 A.D.
31.	Croatia, Surinam, Mauritius, Tanzania, French, Polynesia Vanuatu, Sri Lanka, Mongolia	1998 A.D.
32.	Solvenia, Namibia, Mozambique, Papua New Guinea	1999 A.D.
33.	Macedonia, Dominica Botswana, Rwanda, Australia	2000 A.D.
34.	India	2005 A.D.

*Sources: Khadka, 1997: "Probability of VAT in Nepal"*

Among the nations of SAARC region Pakistan and Bangladesh have already adopted VAT. The VAT has been considered great in India and introduction of the VAT is now figuring prominently in agenda of government, both at the center and states voices toward VAT in India are increasing day by day. However this country introduces VAT in different ways under the name of Modified Value Added Tax (MODVAT) since 1986, which is designed to collect excise duty. The tax reforms committee, India headed by Professor Raja J. Chelliah has recommended a genius VAT in place of central excise which is in course of time could be extended down to the wholesale level. The scope of MODVAT was extended 1994/95 (Bajchi, 1995).

However awareness towards VAT was created before five year in Nepal but it faced many pitfalls and facts. The Eighth plan announced to apply VAT in Nepal at the end of the plan. The budget speech of F/Y 1993/94 extended its compliments towards VAT saying that to make sales tax as a principal sources of revenue mobilization, governments attempts will be directed to change sales tax into VAT will be directed to change sales tax into VAT gradually, "A task force was set up in the sales tax and excise

duty department to make necessary preparations for an early introduction of VAT. The task force prepared a draft of VAT law and made other few studies during a period of one year after political change of 1994. The ordinance budget of 1994/95 repeated its compliments to make VAT preparations complete within 1995 giving continuity in preparation. But the budget speech of 1994/95 presented by the government of CPN (UML), Lengthened the move towards VAT showing the need for more study. The task force came to an automatic stop. But the government formed a task force on re-observations of the Nepalese tax system, headed by Dahal and assisted by Khadka. A study was conducted which reached a conclusion that "There is not any other reliable measure without changing the existing sales tax to VAT".

The budget speech of 1995/96 announced that VAT will be introduced from the next fiscal year in apparent to make sales tax opportune in Nepal. "Now the Value Added Tax Act 1996 and Value Added Tax Rules 1997 have been approved. Ultimate Nepalese government has decided to adopt VAT from Nov. 16, 1997. Somewhat hurriedly in the light of its preparation, it is facing the transitional problem as well as Sharp opposition from the business Community. So it will be implemented from 13 February 1998 in Nepal.

## **2.2 Value Added Tax in Nepal**

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

In Nepal the concept of introducing value added tax was developed along with the eighth plain (1992-1997) when the government indicated its intention to converts the import/manufacturing level sales tax into value added tax in that document of plan. Preparation of VAT was initiated in September 1993 when "VAT Task Force" was created in the sales Tax and Excise Department in order to make the necessary preparation for the introduction of value added tax. A VAT steering committee was also formed to evaluate and monitor VAT preparatory activities. After the depth study on various aspects relating to the structure an operation of VAT, the task force prepared the draft of VAT law in 1994. It was discussed in depth at several stages with in the taskforce with concerned parties. After reviewed by the steering committee, the draft was sent to various business groups for their comments. Although the business community did not provide and written comment on the draft VAT law, the private sector opposed to the implantation of Value Added Tax.

Due to the disagreement of private sector and political instability in those days, the government did not indicate its commitment to introduce value added tax. They expressed the argument that the infrastructure and preparation were insufficient to implement the value added tax effectively. In September 1995, along with the formation of coalition government, it committed to introduce value added tax in the same fiscal year 1995/96. The VAT bill was presented to the parliament on December 1995. As per parliamentary process, it was referred to the finance committees (a parliamentary committee) and the committee returns the bill to the parliament on same month together with its report for amendments to a few provisions. The lower house of parliament passed the VAT bill on same month while upper house of parliament passed it on January 1996. The royal seal was provided to 'Value Added Tax Act, 1995 (2052)' on 21<sup>st</sup> March 1996. For the effective implementation and administration of VAT, the government established one VAT department in center and seventeen VAT offices in different districts by changing the name of Sales Tax and Excise Department and its offices as Value Added Tax Department and Value Added Tax Office respectively in 16<sup>th</sup> July 1996. The government has issued Value Added Tax Rules, 1997 in 24<sup>th</sup> March 1997.

Since the strong opposition from the business community and from the oppositions of political parties the government could not enact VAT laws immediately and has made a provision in section 1.2 of Act and section 1.2 of the Rules that the VAT laws shall come into force on such date as Government may specify by notification published in the Nepal Gazette. In this way the implementation of value added tax has been postponed for some time although the Act has already been provided royal Seal. The Act finally has come to force as the government specified the date of implementation of VAT by publishing in the Nepal Gazette on 16 November 1997 (1<sup>st</sup> Marga 2054). However, it could not be implemented in full phase until the fiscal year 1998/99 due to political instability and strong opposition from the business community after the compromise with business community; the government has implemented value added tax in full phase since 17<sup>th</sup> July, 1998. It has been introduced as an improved indirect tax for the replacement of the sales tax. It also replaces hotel tax, entertainment tax and contract tax and has been supported to collect the same revenue as the four taxes it replaced. Now a day, Value Added Tax is administered through Inland Revenue Department and Inland Revenue Offices as Department of Value Added Tax and Department of Taxation are merged as Inland Revenue Department since 17<sup>th</sup> July 2001.

Nepal has adopted broad based consumption type value added tax with credit method. This means the tax base is domestic consumption only. Some social or political grounds including exports goods or services are zero rated. Some goods and services like goods or services of basic needs, agricultural products, social welfare services, educational goods and services, cultural goods and services etc. are exempted from tax. VAT with single rate of 10 percent has been increase to 13 percent with its effect from 15 Jan, 2004 (Magh, 1, 2061).

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

The type of VAT adopted by Nepal in conventional similar to that implemented over 135 countries around the world, it has injected some special features in to VAT system to make it uniquely Nepalese. The following are the main features of the Nepalese VAT system: The adoption of consumption type of VAT because VAT is finally borne by the consumer.

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

## **2.3 Structure of VAT in Nepal**

### **2.3.1 Coverage**

Nepal has adopted a broad-based consumption-type VAT using the tax-credit method. Under this system the tax is levied on all types of goods and services, both imported and domestically produced, except those specifically exempted by the Law. Tax exempt goods and services may broadly be classified as goods and services of basic needs, basic agricultural products, agricultural inputs, social welfare services, goods made for the use of disabled persons, most passenger transport services, educational and cultural goods and services, personal services, the purchase and rent of land and

buildings, financial and insurance services, postage and revenue stamps. VAT is extended right through to the retail level. It is levied on the value added by each firm at each stage in the production and distribution process. However, small vendors whose annual turnover is below the registration threshold irrespective of their place in the production and distribution chain are not required to register for VAT and thus the tax will not be applied to goods and services that they sell( *khadka, 1997*).

### 2.3.2 VAT Computation

The base of VAT is the value added by each firm through its production and distribution activities. The value added is not calculated directly but the exact result obtained by levying tax on total sales and deducting tax on purchases from tax on sales. For example, let us suppose that a wheat producer sells to miller a quintal at Rs 700. The miller sells wheat floor to the dealer at Rs.2400. Finally, the dealer sells it to consumer at Rs.3000. On the basis of these figure, VAT will be levied in the following manner.

**Table 2.4**  
**Computation of VAT**

*Figure in Rs.*

Production and Distribution stages	Purchase Price	Selling Prices	Value Added	Output Tax (Collected on sales)	Input Tax (Tax paid on purchased imported)	VAT Payable to GOV.
Farmer to Miller	-	2000	2000	260	0	260-0=260
Miller to Dealer	2000	2400	400	312	260	312-260=52
Dealer to Consumer	2400	3000	600	390	312	390-312=78
Total VAT paid to Government						390

From the above calculation, Applicable VAT rate is 13%, the farmer collects Rs 260 as VAT on his sales and pays it to the treasury. The miller collects VAT of Rs 312 on his sales but has on input tax credit of Rs 260 and thus remits Rs 52 to the government. Finally, the dealer collects VAT of Rs. 390 but deducts his input tax of Rs 312 and remits the balance of Rs.78 to the government account. Thus the government gets Total revenue of (260+52+78) Rs. 390.

As indicated in the above illustration, a taxpayer is allowed to deduct from the tax collected on sales the tax paid on purchases for his business. This deduction, known as an input tax credit, includes the tax paid on his purchases or importation of raw materials, semi-processed goods and overheads, provided that they are used to make taxable goods or services.

### **2.3.3 Input Tax Credit**

Tax credit is one of the important features of VAT. Taxpayers are allowed to deduct their input tax from their output tax. In other words a taxpayer is allowed to deduct tax paid on purchases from the tax collected on sales for his business. This deduction is known as input tax credit. Input tax credit includes the tax paid on the purchases or import of raw materials, semi -processed goods and overhead that they are used to make taxable good or services.

### **2.3.4 Exemption**

Under VAT system all goods and services are divided into two basic categories: taxable and tax-exempt. Goods and services are either taxed at the standard rate of 13 percent or they are taxed at zero percent. Those taxed at the standard tax include all goods and services except those that are specified as taxed at zero percent or tax-exempted. According to VAT Act 1996, the purchaser will not pay VAT on tax-exempt goods and services and the supplier is not allowed input tax credits on purchases related to the following goods and services. *(The details of goods and services exempted from VAT are given in the Appendix- 4)*

Group1: Basic Agricultural Products:

Group2: Goods of Basic Needs:

Group 3: Live Animals and their products:

Group 4: Agricultural inputs:

Group 5: Medicine, Medical cure and Similar Health services:

Group 6: Education:

Group 7: Books, news papers, printed materials and printing and publishing:

Group 8: Artistic, cultural and carving services:

Group 9: Passenger transportation and transportation services:

Group 10: Business or Professional services:

Group 11: Other goods and services:

Group 12: Building and Land:

Group 13: Gambling, casino and lottery:

### **2.3.5 Zero rating**

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

Goods or Services payable at zero rate:

#### **1. Export of goods**

- a) Goods exported outside the Nepal;
- b) Goods shipped for use as stores on a flight to an eventual destination outside the Nepal;
- c) Goods loaded for use as stores on aircraft to a destination outside Nepal or as merchandise for sale by retail or supplied to persons in the course of such a flight.

#### **2. Export of services**

- a) A supply of services by a person resident in the Nepal to a person outside the Nepal and having no business establishment, agent, or legal representative acting on his behalf in the Nepal.
- b) Where goods are supplied on a here or loan basis by a registered person resident in Nepal to a person resident outside the Nepal
  - ) Imports of goods a services by accredited diplomats
  - ) Medical industries can get zero rate facility, if they intended
  - ) Local purchase from those which were provided exemption from sales tax as per the agreement made previously.

### **2.3.6 Tax Rate**

The Nepalese VAT will be levied at single positive rate, in order to make the VAT system easier and simple. This is because, the multiple rates makes tax administration more complicated and there is need to classify records of commodities and have to supply more information which preparing their tax returns resulting in higher burden on the businessman and tax administration. Moreover in a developing country like Nepal, many small traders who are not sufficiently literate sell a number of commodities. They are not able to apply properly the different rate to various goods they sell. So in Nepal, VAT has levied at a single positive rate. The rate will be fixed by the finance etc. In past the rate was 10%. This rate is remained unchanged until 10 years (from 1996 to 2006). Since January 2006, the rate of VAT is charged by 13 % at a single positive rate. Exports are subjects to a rate of zero percent.

### **2.3.7 Threshold**

Relating to simplification of the VAT administration, many countries provide a threshold level even for taxable supply. A threshold would keep of trades form VAT who sells below the prescribed level. The only major difference between exemption and threshold is that, a threshold applies to taxable supply and more often that not there is an option to register voluntarily in the VAT where as, under exemption, registration is out of question. So, any one sells below a level of threshold, if gets in to the VAT voluntarily he/she would be getting an equal treatment to other registered taxpayer. Many countries even provide extra privilege for voluntary registration.

In case of Nepal, small traders whose annual turnover is below a certain level are not required to register on VAT. The level of the threshold varies from country to country depending up in the revenue requirement, administrative capability, level of record and accounting proficiency in the industry and business etc. Section I of the VAT Act 1995 has made a provision for setting a threshold limit and initially the level was fixed by VAT regulation. Later, this threshold level was raised to Rs. 2 million by Economic Act 2054.

## **2.4 Operation of VAT**

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

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

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

tax enforcement and investigation, tax audit, tax refund, excise and liquor administration, tax payer services (*Adhikari, 2003*).

#### **2.4.1 Registration (VAT Act 2052: sec 10)**

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

A person means an individual, firm, company, association, cooperative, institution, joint business, partnership, trust, government body or religious organization. Similarly those persons who fall below the defined threshold don't necessarily have to register. But if they want, they can register and take TPIN. A non-registrant is not entitled to collect VAT and utilize the facility of tax credit and refund. The TPIN refers to the Taxpayer Identification Number that is to be allocated to each registrant during the registration process. For the registration, first of all the taxpayer should get the prescribed form (in Nepali) from any Inland Revenue Office. The TPIN or PAN is very important regarding the Inland Revenue administration. The taxpayer should include his TPIN in the documents related to VAT office, income tax, customs, imports and exports, and banks. Registration is required for any business with annual taxable sale of more than Rs. 1 million. Regarding the calculation of turnover zero-rated sales if from it is impossible to identify the purchase, sales, stock, the tax officer may treat all these transactions as turnover and may assess the tax. This mean if the zero rated sales exceed the threshold, taxpayer is liable to register. VAT registrants are required to pay VAT on or before the 25<sup>th</sup> day following the end of each month. Every taxpayer that is involved in taxable sales exceeding the prescribed threshold is liable to register for VAT before starting their business or 30 days after starting their business. They must provide their customers with a tax invoice and should maintain records and keep their VAT records for a period of 6 years. It is required to give notice and advice to the concerned Inland Revenue Office if any changes to the business such as new address, telephone number or a reorganization of the partnership. They post their Certificate of Registration at their principal place and copies of it at all branches where the customers may easily notice and observe it. They

should allow tax officers to enter the business to examine the business records and the stock at hand (*Adhikari, 2003*).

#### **2.4.2 Deregistration (VAT Act 2052: sec 10-2)**

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

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

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

#### **2.4.3 Accounting (VAT Regulation Act 1996: Annex 8-9)**

The effectiveness of VAT depends on the VAT accounting system. It should neither contain unnecessary details nor is inadequate so that it cannot provide appropriate and useful information. The VAT accounting should be information-based as well as less costly. The accounting in VAT consists in the process of maintaining purchase, sales book, VAT account and stock. Thus Purchase and Sales books are the main part of VAT accounting. The Purchase book contains such information as TPIN, the supplier's name with TPIN, The customer's name with TPIN. Similarly in the sales book date, invoice number, name and number of the supplier, purchase price and taxable price of the import, taxable value and the amounts of VAT should be recorded. The Purchase book is a certified register. The registrants should maintain or record all the purchases during the period, all the goods and services either taxable or non-taxable appearing in separate columns. Likewise, the sales book is another main part of VAT accounting. It should be

posted on the basis of sales invoices chronologically showing the amount of standard and zero-rated sales amount and the tax amount. At the end of tax period it should be total led while mentioning the amounts in the VAT account. The VAT account is monthly summary showing the sources of the figures used in the VAT return. In order to complete the VAT return, a taxpayer should need to ensure that the amount of VAT paid on purchase, the amount of VAT collected on sales, a method of distinguishing between taxable and exempt sales, the time of goods and services supplied and proof that goods were exported (*Adhikari, 2003*).

#### **2.4.4 VAT Invoices (VAT Regulation Act 1996: Annex 8-9)**

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

Only retailers are facilitating to issue abbreviated invoice with prior approval of tax officer. It is not necessary to mention details in abbreviated invoice as shown in tax invoice. It can't be issued for transaction exceeding Rs. 5000 including VAT. It also must be issued in sequential order. It shall be the duty of a registered person to provide a tax invoice who asks for. A recipient who receives and abbreviated tax invoice shall not be allowed to edit the input tax. In an abbreviated tax invoice, tax is calculated by multiplying the sales value by rate of tax divide by adding 100 to rate of tax.

#### **2.4.5 Return Filing (Sec 18)**

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

- ) Failure to submit return in specified time is penalized;
- ) Nil return or credit return Rs. 1000 flatly.

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

#### **2.4.6 VAT Collection**

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

- ) Deducting the tax from the refundable tax amount
- ) Possessing the taxpayer's fixed and current account
- ) Auctioning the property owned by the taxpayer
- ) deducting from the bank account
- ) Deducting from the amount payable to taxpayers by Government offices or Government owned enterprises.
- ) Deducting from the amount payable by the third person with the prior approval of the taxpayer.
- ) Blocking the taxpayers' export-import business (*Adhikari, 2003*).

#### **2.4.7 Tax Credit**

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

- ) Beverages
- ) Alcohol or alcohol mixed beverages such as liquors and beers
- ) Petrol

- ) Entertainment expenses

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

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

#### **2.4.8 Assessment**

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

- ) If tax is not field
- ) If tax return is filed lately
- ) If tax return contains incomplete information or
- ) If tax official has reason to believe the tax is not genuine

#### **2.4.9 Refund**

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

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

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

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

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

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

#### **2.4.11 Appeal**

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

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

#### **2.4.12 Offences and Penalties**

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

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

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

#### **2.4.13 Rewards**

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

#### **2.4.14 Auditing**

The purpose of the audit is to find out, according to the law and regulation, the actual VAT liability of the taxpayers. Auditing in VAT system is a selective review of the taxpayer's books of accounts and other records including balance sheet profit and loss accounts. Main cause of auditing is to be ensured that the major areas of purchases, sales, stock and profit or loss accounts are substantially correct or not. The purpose of VAT audit is to find out actual VAT liability of the taxpayer's. A VAT audit, which is based on the principle of self-assessment by taxpayers, may be integrated with that of income tax. However the intergraded audit is more desirable and popular. The types of a VAT audit can divide into field audit and office audit, where the former include advisory visit, verification of records and fraud investigation and the latter includes desk audit checking

the return for arithmetical accuracy and completeness. The office audit is desirable to check each return for probable accuracy, as a basis for selecting account for audit.

Several activities and steps; which appear in performing the audit, are included in the audit management. Generally the audit management activities include

- ) Searching of the taxpayers who fail to register and file the return.
- ) Reviewing the tax returns, checking the conformity of calculation and verifying the data inputs, outputs, zero-rated goods and exemptions.
- ) Selecting the business unit for audit through the establishment of appropriate selection criteria and accounting to the audit capacity of the administration.
- ) Preparation for audit and audit result for further decision-making and auditors, allocation of tasks among inspectors and auditors, audit manuals etc.

## **2.6 Review of Previous Studies**

John and Francis (1991) wrote successful story of VAT in their paper, "*Trinidad and Tobago: The Development of VAT*"; development of VAT was carefully planned and it went through the several phases from 1986 to 1989. The tax performance committee was established in 1987. The first task of the committee was to review the current tax system and develop a preliminary recommendation in direction of reform. The studies showed that the existing tax system was an urgent need of revision for several aspects. 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 or the final adoption of VAT. The structure of VAT was drafted in final paper after the careful examination of several issues including revenue and equity with development of analytical models. After so many detailed 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 previously expected and forecasted results. For its success, there were several reasons such as careful planning of tax structure and administration, a close co-operation between the government and business sector, the extensive publishing programmer, the coordinated reform in purchased tax and income tax, and selection of competent persons. There were several things can be taken as suggestion from Trinidad and Tobago for the introduction and operation of VAT in other developing countries as well.

IMF (1991) Washington DC Entitle- "*Value Added Tax Administrative and Policy Issue*" edited by Alan A. Jait brings out the beauty of the VAT and briefly reviews the reasons why the VAT is chosen as the main sales tax.

The study concentrates on the policy concerns on the basic illustration of some theoretical as well as empirical proofs. The study clearly depicts three main group of reason to adopt a VAT: revenue, neutrality and efficiency.

*Revenue:* VAT would generate more revenue with less cost than that taxes it replaces." Traditional income and sales taxes have been meeting public resistance and the VAT provides a new concept. Buoyant revenue base, typically yielding more than initial estimates as the case of Indonesia, Korea, New Zealand, Portugal and Tunisia show "Because of broad coverage this tax offers much greater revenue potentiality as compared to according to of revenue in most countries. According to this study the VAT contributes from 12 percent to 30 percent.

*Neutrality:* The VAT is non-distortion provided. There are few exemptions and little zero-rating. VAT on investment should be fully credited and this frequently is an improvement over the taxes replaced that often taxed capital goods:

VAT is natural with respect to the choice methods of production and distribution, since the tax is levied. Only on the value added at each stage in the system, tax liability remains the same regardless of the system of Producing and distributing. Total tax paid on a given commodity depends on the rate of the tax and on the total value added. (i.e. the final price ) of that commodity but not on the number of stages through which it has passed. So the tax is considered vertically natural except for negligible element of discrimination. It also doesn't discriminate the production whether it is capital-intensive or labor.

*Efficiency:* A significant characteristic of an ideal tax system is efficiency. An efficient tax system is one that does not cause any distortion introduction and consumption. In other word such a tax system does not bring any unintended and undesirable effect in the methods of production and distribution or in consumption. Rather it avoids probable distortions of the optimum allocation of resources. In this connection Editor Nan a Tait writes-the VAT was often replaced efficient, distortion and badly administered taxes. The introduction of the VAT provides an opportunity to sweep away the cobwebs and revamp a substantial part of the tax administration.

Bogetic and Hasson (1993) undertook a cross-section analysis on "*Determinants of Value Added Tax Revenue*" using data from 34 countries to answer certain key question: what empirical relationship emerges from existing data on VAT revenue and VAT rates for countries with a single VAT rate? How much on average can one percent increase in the VAT rate be expected to raise VAT revenue as measure by VAT to GDP ratio? What key determinants of VAT revenue emerge from a cross-country analysis of the full sample of countries? Is there a statistically significant difference in VAT revenue performance between countries with a single VAT rate and multiple VAT rates?

The result of their regressions generally confirm the conventional views on the key variables influencing VAT revenue performances the rates, the base and rate dispersion. The rate and base coefficients are significant and with the expected positive sign in all of the estimated versions of the model. An estimated model is used with appropriate caveats to predict VAT revenue potential in countries (such as Bulgaria) that are thinking of introducing a single rare VAT. They also find that other things being constant VAT generates higher revenue in countries with a single VAT rate than in countries with multiple VAT rates. The difference in the estimated models for the two country groups is statistically significant, indicating a structure/change. However this change in the pattern of VAT revenues can't be explained exclusively in terms of differences in rate structure. A satisfactory explanation must include other factors such as the base and tax administration capacity. The suggestions of that analysis are: to provide superior revenues, VAT should be levied in a single rate on as broad base as possible and tax administration and enforcement must be tough to ensure compliance.

Thapa (1994) published a book entitled "*Value-Added Tax in Nepalese Context*," he applied the theoretical methodology and deal with theoretical issues. The conclusion of the study was "considering the present condition of Nepal facing government expenditure, low revenue efforts high dependency on foreign loan, need of more economic growth of the economy, and because of low revenue potentiality from the direct taxes there is a prompt need to improve the sales tax of Nepal. But there is less chance to mobilize more revenue through existing form of sales tax. In this context there is no any other alternate except introducing VAT in Nepal." However, the study is directed to Nepal but is fully dependent on theoretical issues.

Ministry of Finance (1995) conducted a study by preparing a 'Task Force' headed by Prof. Dahal reviewed the Nepalese tax system. It mainly analyzed the magnitude of the Nepalese tax system and recommended various measures for the tax reforms.

The study was depended on theoretical base and the study reached the conclusion that "There is no possibility of any other great measure to introduce a tax rather than introducing VAT in Nepal".

The major findings of the study are:

i. The necessity of VAT in Nepal

- ) To increase the revenue collection by boarding the tax base.
- ) To make the tax system more buoyant
- ) To discourse the tendency of tax evasion
- ) To make the system efficient
- ) To promote the export.

ii. The existing tax system of Nepal generates less amount of revenue, so alternatives for the system should be searched. In this context the VAT appears as the best alternatives.

iii. Some aspects for consideration of VAT are price level, equity, the condition of tax payers and small vendor.

iv. A special consumption tax on luxuries goods sold be introduce as a supplementary tax for the VAT.

v. There must be fully and detailed preparation before implying VAT.

Khadka (1996) in his paper "*A VAT for Nepal*" focuses on the purposed structure, operation and administrative set up of a VAT for Nepal and necessary steps to be taken for its early introduction. In its purposed Structure the coverage of VAT should be made as broad as possible covering all business transaction. Exemption should not be granted unless there is a Specific reason to do so, such as administration and equity. Zero rating should be single in order to avoid complication and inefficiencies in collection.

The purposed operation as VAT requires that the taxpayers above a threshold limit should be registered. The vendor should issue an invoice for Each sale, keep a clean account as his purchases and sales (separate accounts for Zero rated, exempted and positive rate goods) and VAT liability should be Calculated of its taxable sales, tax credit

methods should be used as a methods of computation of the tax, and tax payment and refund Period should be of one Month. The present sales tax department and excise department should be restructured drastically to administer a VAT. Officer level posts should be increased Considerable and extensive training should be provided including the causation of computer system. A VAT implementation team including experts and person from every field should be set up. A detailed preparation should be considered as a pre-requisite for the introduction of VAT. Comprehensive VAT Education program must be launched to be educating the taxpayers.

Subedi (1997) stated in his dissertation entitle “*Applicability of Value Added Tax in Nepal*” that existing tax system is not efficient in raising adequate revenue, and it is also distortion, inequitable and gives incentives for tax evasion, the finding of the study emphasize the need for the reform of entire tax system. To reform the tax system, it is desirable and necessary to move towards VAT and improves the administration. A VAT in Nepal expands the coverage of tax, removes distortion effects of the existing taxes and will have a minor effect on prices. Empirically VAT is also found to be the best alternative for reducing the inefficiencies and introducing neutrality, fairness, productivity and transparency in the tax system. A VAT however, would rise the regressively of tax system.

According to his study, the most important problem of implementing a VAT is administrative inefficiency. The present sales tax administration is not capable of handling a VAT. Others problem associated with the application of VAT are on account keeping system, lack of knowledge about VAT, lack of co-operation between the government and private sector, illiteracy and low public awareness. The existing tax evading practices also pose a serious problem. The full advantage of VAT cannot be achieved with out extending it to the retail level but the extension of VAT to the retail level is impossible and impracticable in Nepalese context.

The study suggests that moderate single rated VAT is desirable. If the VAT is implemented well, it will generate 1.5 to 2.5 more revenue then existing sales tax. But, however a VAT in Nepal may not be "A hen with golden eggs" and it is not a "Panacea" for curing all ills, it requires actives efforts and commitment of all sides-the study concludes.

A Study made by Nepal Chamber of Commerce (1997) to analyze the possible effects of VAT on Nepalese Economy makes some observations. The observations are:

- ) Adverse effect on price level,
- ) Increase in the prices of imported goods would hit the import business and re-export of imported good leading to a decline in the revenue from import tax
- ) the account keeping requirement of the VAT would increase the tax compliance cost and cost of doing business, it would adversely affect the small traders,
- ) adverse effects on domestic production due to the abolition of protection policy under VAT
- ) VAT would be unjustifiable on social ground, it would aggravate the income distribution negative effects in revenue collection and
- ) Changes of failure of a VAT in Nepal are great because the present administration incapable of handling a VAT.

The study concludes that a VAT in Nepal should not be implemented in haste. A partial VAT on some commodities should be implemented on experimental basis to know its pros and cons and after that a full VAT might be considered.

Nepal chamber of commerce organized a nationwide discussion program on VAT. According to a report of discussion program (Nepal Chamber of Commerce, 1997) the various views express about VAT in Nepal may be summarized in the following way:

1. Government Machine is not capable for implementing a VAT.
2. The business community has no confidence in the administration because it has failed to implement many other taxes effectively and fulfill its own commitments even previously.
3. VAT will hamper genuine trade and as a consequence, illegal trade will prosper. Rise in the price of domestic products will make them less competitive, import and export of imported goods will get a negative impact leading to a decline in government revenue.
4. VAT will inhibit the growth of newly developing trade and activates in the country.
5. The modern account keeping system is required by the VAT but difficult to keep due to the raise in the expense of the current business.

6. There will be a sharp price rise if a VAT is introduced. Consumers will badly be affected due to the rise in price. Nepalese markets in boarder areas will dry up due to the increasing VAT.

To sum up, it is not possible to implement a VAT in Nepal and if implemented, it will have adverse effects on the role economy.

Ghimire (1998) in his dissertation "*Value Added Tax: Key issues in Nepal*" explains great importance for the effective implementation of VAT administrative capability in Nepal. Organizational structure, audit and inspecting system, reward and punishment, political intervention, selection of skilled and experienced manpower are needed to improve for effective implementation of VAT. VAT is considered as a board based tax and potential advantages of it can be attained fully if the tax is extended through retail level. For the period of time, he suggested to improve following aspects: - (a) Administrative power and creditability (b) Identification of tax payer (c) Registration (d) Educational programs (e) Incentives for small trades.

He also found some difficulties in implementation of VAT in Nepal. These are (i) Rate structure (ii) Small trader in large proportion (iii) Lack of accounting records (iv) Illiteracy and high compliance cost (v) Existence of open boarder.

Strong administration educational program , registration program existence trading program , technical data base system, combination of various, revenue offices, high level VAT implementation term, co-ordination of VAT department. Close co-operation between government and private sector etc. are essential prerequisites for the successful implementation of VAT in Nepal. Focusing on the ever increasing resource gap inefficiency in sales tax and need of revenue for handing developmental works, VAT should be implemented in Nepal.

Silwal (1999) in his book "*Value Added Tax: A Nepalese Experience*" had expressed his practical experience about VAT. The book covers all the aspect of VAT. In writer's word "VAT is an all stages non cascading tax system. It extends to all levels of production and distribution. Similarly, it covers all stages and services. Any discrimination in taxing goods or services or exempting any of them renders VAT ineffective." The book gives main focus on Nepalese tax system. The book clearly analyze why the government of Nepal introduced VAT. Government of Nepal announced retail level sales tax of the rate if 10 percent covers a whole range of goods and services.

There was no procedural law to administer it. When retail sales Tax introduced in Nepal, literacy level was just manger and billing and record keeping was fanciful. In this situation, required revenue could not take place, which in turn into the development expenditure. So that a modern efficient and neutral tax likes VAT was therefore preferred to get rid of past anomalies.

The writer expressed a version by borrowing government declaration that “The government of Nepal does not have the option of doing nothing. Major changes must he make in order to make tax administration fair efficient and effective. The hostility, harassment and corruption that currently exist between the taxes efface and the business community must end if Nepal is to have a modern tax system. The business wants the system changed and willing to pay reasonable tax but they want the system transparent and fair.”

Silwal has suggested that factors affecting VAT design should also take into consideration. A poorly designed VAT accompanied by weak administration would just drain the treasury. So, utmost care is necessary while designing VAT. According to him the following fact were considered while deriving a VAT in Nepal.

- ) Tax base issues
- ) Rate structure issues
- ) Exemption issues
- ) Threshold issues

Finally, the author reached in conclusion that the introduction of VAT provides an opportunity to sweep away the cobwebs and revamp a substantial part of the tax administration. In every country where it has been implanted properly, the VAT has proved itself as revenue productive tax. However the benefits from VAT depends upon its coverage.

Bista (1999) in his research entitle, *"Applicability and Feasibility of VAT in Nepal"*. He has found the followings;

- ) The sales tax system is failure to several cases: narrow tax base, in- elasticity of tax rate, incapable and week administration, tax leakage, corruption and political intervention. So, the entire tax reform is needed.

- ) A VAT is account based, invoice based and record based; it checks the tax loopholes such as under evaluation, non-recording and unauthorized trade. It discourages such issues and problems existed in the sales tax system.
- ) VAT mobilized the additional resources and the rest of internal resources by broadening tax base and by discouraging the existing tax loopholes.
- ) In VAT system, tax refund and threshold, two provisions are necessary for the effective implementation of VAT. But, they are two gates of possible mal-practice and tax evasion for the effective implementation of VAT in Nepal; these gates should be closed by conducting strict monitoring system and by operating the punishment section of VAT enactment.
- ) For implementation VAT, the public awareness level relating VAT and VAT administration should be good and it's a prerequisite in the preparation of VAT.
- ) VAT administration should be strong and efficient in order to implement properly. But, in Nepal, VAT administration has been facing the problem like corruption, incapability, inefficiency, delaying ineffectiveness inadequate physical environment, inexperienced and untrained employee and weak organizational setup. The purpose of each fiscal policy is to reduce the economic inequality between the rich and poor by giving the tax incentives to the poor for the social welfare and by redistributing the national income. Therefore; its effects are found positive on social welfare and negative on the economic inequality.

Khadka (2000) in his book "*The Nepalese Tax System*" writes that reviews the overall Nepalese tax system and tax administration. He also examines the different steps that are taken in the process of developing tax system in Nepal. Further, he recommends so measures to design the tax system that is broad-based, low rated, neutral, simple and transparent, and also some essential measures for the reforms of tax administration are suggested.

The current issues of the Nepalese tax system identified are:

- ) lack of co-ordinate long-term strategy
- ) narrow coverage
- ) artificial tax base
- ) defective organizational structure
- ) weak and traditional tax administration

- ) traditional and complex procedures
- ) Un-enforced local taxes.

The study concludes that tax officials are mostly responsible for the existing problem of tax system and the hesitation of the policy makers to take hard decision is also being boundary to clean tax system.

The following steps are suggested to take in order to rationalize tax system;

- ) Adopt a long term co-ordinate approach
- ) Broaden the tax base
- ) Enhance the tax compliance
- ) Implement local taxes.

Along with these existing issue and suggestions, the study considering the introduction of VAT in Nepal in states that there was no choice other then to introduce VAT in Nepal to generate revenue required for improving it's deteriorating macro economic performance. As VAT is based on transition value, need not to fix arbitrary or artificial values for tax purpose, which avoids the existing problems of under valuation, corruption, non-transparent etc. Achievement of this good feature of VAT depends up on its implementation, which is the major issue for its success in Nepalese context.

Laudari (2001) in his dissertation “*Analysis the Problem and Prospects of VAT in Nepal*” writes that basically on the theoretical aspect. He stated that in the current status of decreasing revenue form custom duties due to the liberal economic policies, importance of VAT is growing for resource Product (GDP) is mobilization. The contribution of VAT in tax revenue and gross domestic product is growing. While the contribution of other tax; replaced by VAT is gradually declining. From the field survey, the study concludes that the VAT having positive effect the national economic growth. Majors' problems associated with the VAT system to business houses are account keeping and billing.

From the field survey, the study concludes that VAT will have effect on economic growth major problems associate with the VAT system to business houses are account keeping and belling. Weaknesses of VAT administration are lack of motivation service minded attitude and dishonesty in VAT officers. VAT system, the best and advanced fiscal tool in theoretical sense, could not yielding the expected returns in Nepal because of the lack of strong and honest tax administration, lack of motivation and service minded

attitude among tax officials, lack of the cooperation of business community lack of coordination between tax collectors and taxpayers, lack of strong political commitment and weak public consciousness.

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

Shrestha (2004) in his article "*Appeal System in VAT ACT 2052*" published in the journal "Rajaswa" identified the problem of VAT Act System; taxpayers do not want to show the transparency in their transactions. They do not want to keep the accounts; they all want to register the firm under small-scale business. Taxpayers generally show the low productivity and high wastage ratio. Likewise they show the large amount of discount allowed to customers. Issue of billing is the serious problem of VAT system in Nepal. Shortcoming of VAT implementation indicated in his study was, not giving the information of preliminary tax assessment, not examining the accuracy of data faulty explanation of act. No adopting the administration circular, not verifying the stock and not conducting link audit, he further suggested what is to be done for correcting the mistake. Billing procedure should be developed scientifically through the help of computer. Taxpayer should be provided education for keeping accounts to make a ware

about billing procedures. An equal punishment standard should be made in the field of tax administration and judicial administration. Consumer should be provided education for their right and duties.

Shrestha (2006), has stated in his Thesis titled "*Assessment of VAT in Nepal*" that;

- ) The primary objective of VAT implementation was to avoid the problems inherent to manufacture's sales or cascading turnover. The system has been universally accepted because of its growing popularity, catch-up effect, self policing, free of cascading and pyramiding and being a broad based tax.
- ) VAT is broad based tax that is directly related to the list of exemption and threshold. The list of exemption in Nepal is so long that it narrows the tax base.
- ) Refund process mechanism is to attract investment and to promote exports.
- ) In Nepal compliance rate is very low compared to registration figure, which means revenue is not being collected significantly.
- ) Excise duty is an important source for VAT but it has not been effectively administered.
- ) Widespread leakages are normal practices due to lack of professionalism, integrity, technically competent and international orientation.

Singh (2007) mentioned in his dissertation "*Value Added Tax: Its Problem, prospects and suggestion in Nepal*", considered VAT as broader based tax system. He puts the reason for the adoption of VAT as:-

- ) It is based modern theory
- ) It raises the revenue
- ) It is more informative
- ) It is free from cascading effect
- ) It is based on self - assessment system.
- ) It is likely to reduce tax evasion.

Prior to its implementation he advises to incorporate various suggestions. Some of them are:

- ) Long term policy with clear vision

- ) Updating taxpayer's profile Transparency and uniformity in the tax rules, regulations and circulars.
- ) Data based computer system must be introduced.
- ) Simple book keeping system should be provided.

Shakya (2008) his dissertation entitled, “*Tax Reform in Nepal: A Study of Nepalese Value Added Tax System*”, stated that “A large amount of government revenue comes from taxation. More than 75% of government revenue comes from taxation whereas the contribution of non-tax revenue is less than 25% in Nepalese tax structure. The contribution of tax revenue was expected to increase after the implementation of VAT. But implementation of VAT did not increase the contribution of tax revenue on total revenue significantly because is not implemented effectively yet.

The major problems of VAT implementations are:

- ) VAT administration is not satisfactory.
- ) There is wide range of practice of evading tax.
- ) Very low public awareness and consciousness level towards VAT.
- ) Need of supervision and rational auditing.
- ) Ignorance and no habit of taking bills.
- ) Lack of trained manpower and expertise etc.

In order to make VAT applicable, following things should be considered:

- ) Administrative power and credibility
- ) Tax payer identification
- ) Registration and educational program
- ) Incentives for small traders
- ) Co-ordination with private sector
- ) Feasibility of refund system
- ) Electronic media

Ghimire (2009) mentions in his dissertation entitle “*VAT as a Tool of Revenue Mobilization in Nepal*” that Value Added Tax puts greater significance in revenue mobilization in Nepal. The main problem of VAT with respective to revenue mobilization in Nepal are structural problems, administrative problems, problems of Tax laws and regulation and problem of open boarder and unauthorized trade.

He has various suggestion to overcome the problems, some of them are:

- ) There should be close cooperation between the private sector and government sectors for the successful implantation of VAT system.
- ) VAT collection from import is remarkably higher than domestic production; such high dependency on import is not good therefore the government should take an effective step to encourage domestic production.
- ) VAT collection from import is remarkably higher than domestic production; such high dependency on import is not good therefore the government should take an effective step to encourage domestic production.
- ) Most of the national economic activities are dependent upon agriculture and large portion of GDP originating from agricultural sector remains out of tax thus VAT should be levied on agriculture sector.
- ) Providing various facilities to VAT registrants can increase VAT compliance. The tax administration should reward the genuine man and punish the fraud businessman.

Khanal (2010), his article “*Get Rid of the VAT*” published in journal “Sambad”; identified the implementation problem of VAT in Nepal. He wrote that there is a popular misconception that VAT is a simple method to generate huge revenue for the government. Leading economists and Policy makers in Nepal are not immune to this misconception. If anything, VAT is an immensely complicated system requiring different taxation policies for different types of goods and services. Given its complicated nature and a requirement of heavy personnel to monitor its implementation, we need to ask ourselves if the VAT is an appropriate taxation system for a poor country like Nepal. We do not have the necessary capital and manpower to monitor the VAT to avoid exploitation and evasion. It is not the right taxation policy for this country.

He has suggested that in today’s Nepal, the manufacturing industry is struggling to survive. Therefore it seems to be the wrong time to implement the VAT in Nepal. Maybe it can be implemented later, in the future, when we have solid economic growth and our manufacturing industry is booming. But, given today’s economic scenario, VAT is not the best tax alternative for us to pursue.

Raut (2010) in his dissertation entitle “*Tax Reform in Nepal: A study of Nepalese value added tax system*” stated that 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. 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. More revenue can be generated through VAT by widening its coverage. The small traders which fall on the threshold limit could not have been brought into VAT net yet. They should be registered. The revenue can increase by discouraging tax evasion. There is wide range of practice of evading tax.

According to his study, the main problems in the process implementation of VAT in Nepal are administrative incapability, lack of maintenance of proper accounts, low public awareness towards VAT.

Kandel and Lamsal (2011) published a book namely “Tax Laws and Tax Planning in Nepal” and concludes about VAT, it is an advanced form of sales tax it is the tax imposed an added value of goods and services. Value Added Tax is one of the form of indirect tax. It is a broad based tax. It is related to both the goods and services. It is tax system that aims to minimize tax evasion and increase resource mobilization. It is imposed on added value amount in stage. It is equivalent to multi stage sales tax, in context to sales tax, VAT is imposed on added value of production and distribution. The value is added in the form of profit, rent, wages, salaries, etc.

Value Added Tax Act 2052 (Section 12) describe the calculating value as follows:

- a. The amount of all expenditures related to transportation and distribution which was borne by a supplier in connection with the transactions and amount of profit.
- b. Exercise taxes and all other taxes (duty charge, and fees as specified by the annual act) but excluding the tax imposed under this act.

However, taxable value does not include the amount of discount, commission or other similar commercial rebate granted on value in supplying goods and services.

The study suggests that for the better administration and implementation of VAT system in Nepal a proper co-ordination between IRD and MOF should be established. Unpractical Acts, Rules and Regulations should be amended. VAT laws needs to review on the basis of experience gained so far VAT laws should be effectively implemented. Similarly 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. 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.

In this way, various books, dissertations, reports, articles and other reference materials have been reviewed while preparing this dissertation. But there are not sufficient studies and reports conducted in such particular topic that “Value Added Tax: Particle Aspect of Implementation in Nepalese context” .A few works have done earlier but they are not able to explain explicitly the real picture of revenue collection from VAT, its trend and its relation with total indirect tax revenue.

## **2.7 Research Gap**

However, there are various researches available in central library done on VAT. Most of them have focused the contribution of VAT in the different government revenue, structure of the government revenue and the contribution of VAT from various sources, VAT structure etc. They have found that the contribution of VAT in government revenue is significant and it should be mobilized to economic development of Nepal. Almost all of them have indicated that VAT administration is inefficient and there is high level of VAT evasion. Most of the researchers have suggested improving the VAT administration, increasing the contribution of VAT in resource mobilization, and widening the VAT coverage. But they have not Explore the major issues of implementation of VAT in Nepal. The value added tax (VAT) is a general, broad based consumption tax assessed on the value added on the goods and services. It applies more or less to all goods and services that are bought and sold for use of consumption in the community. Thus goods which are sold for export of services which are sold to customers abroad are normally not subject to VAT. The success of VAT system depends upon the proper account keeping, registration of business, effective billing system and so on. Among the factors, non awareness of consumers is one of the main reasons of failure of billing system. At present the issues have become the effective implementation of VAT system in Nepal. The culture of doing business without maintaining proper books of account or maintaining multiple sets of books of accounts have made implementation of VAT difficult. Therefore, to fulfill this gap, the researcher has conducted this unique research. Both primary and secondary data have been used in this research. The VAT system, implementation problems of VAT and The major issues of VAT in Nepal has been studied in this research.

## **CHAPTER-III**

### **RESEARCH METHODOLOGY**

Research Methodology refers to the various steps that are generally adopted by researcher in studying one's research problem along with the logic behind it. Thus, research methodology is a systematic and organized effort to investigate a specific problem that needs a solution (Wolf and Pant, 2003:203). Every research should be outlined in the systematic manner and for that reason, research methodology is one of the most important part.

In this regard, the chapter Research Methodology consists of research design, source of data, population and sample, methods and tools of data analysis. The major contents of research methodology followed in course of this study are as follows:

#### **3.1 Research Design**

Research design mainly includes the structure, plan and strategy adopted to conduct scientific inquiry. This study is based on both the description, analytical as well as empirical method. The analytical research design is used for analyzing and interpreting the data acquired from the secondary sources and descriptive research design also has been applied for the conceptualization and description of the problem. The empirical research relies on observation alone often without due regards for system and theory, it is data based research coming up with conclusion, which is capable of being verified by observation.

#### **3.2 Population and Sample**

In this study, the analysis has been done about VAT on the basis of information collection from Tax Officer, Employees of Trading Company, Employees of Manufacturing Company and General Public. Basically, questionnaires are used as study tool. The sample size is taken only eighty from the different field as given in the table below:

### Sample size

Respondents	Sample size	Percentage
Tax Officer	20	25
Employees of Trading Company	15	18.75
Employees of Manufacturing Company	15	18.75
General Public	30	37.5
Total	80	100

### 3.3 Sources of Data

Both Primary as well as secondary data have been collected in order to achieve the real and actual result out of this research. All the possible and useful data as far available have been collected. The major sources of data are as follows:

#### 3.3.1 Primary Data

A set of questionnaires was developed and distributed to the selected respondents in order to obtain accurate information. The questionnaire was distributed to different groups i.e. Tax Officer, Employees of Trading Company, Employees of Manufacturing Company and General Public.

#### 3.3.2 Secondary Data

The secondary sources of data are the information serviced from books, journals, newspapers reports and dissertations etc. The major sources of secondary data are: Published report, articles and research, Published documents of National planning commission and Nepal Rastra Bank, Published report and seminar paper of industry and trade association, Publication of Inland Revenue department ,Publication of VAT project, Budget speech as and economic survey of various fiscal years, Different Publications of Central Bureau of Statistics, World Bank Reports, Newspaper, magazines and journals, Various Websites, Related other different books etc.

### 3.4 Presentation and Analysis of Data

This study was based in descriptive, analytical and empirical methods for the presentation and analysis of data. The information received from primary and secondary sources are firstly tabulated in to separate format symmetrically in order to achieve the desired objectives. After that these data are tabulated and analyzed. For the purpose of analysis generally simple statistical tools have used which are Table, Graph, Diagram, simple percentages, Trend line and Pie charts, time series analysis and Correlation Coefficient are used for the purpose of presentation and analysis of data.

### 3.5 Data Analysis Tools

To make research objective practicable, to find accurate result different statistical tools are used. The different statistical tools in the process of analysis are:

1. Simple percentage.
2. Trend line and Pie charts.
3. Analysis of time series and Coefficient of Correlation

Under the Analysis of Time Series effort has been made to analyze trends in composition of VAT in Nepal. On the basis of 10 years of data, the revenue amount of VAT from domestic product and import has been forecasted.

Let the trend line be,

$$y_c = a + bx$$

Where,

$y_c$  = Total amount of domestic product/import product of VAT

$b$  = Constant which is the change in  $y$  corresponding to the change in  $x$  by one unit

$a$  = Constant which is computed  $y$  value when  $x = 0$

$x$  = Time in the case of time series analysis

Formula to be used:  $a = \frac{\sum y}{n}$  and  $b = \frac{\sum xy}{\sum x^2}$

The coefficient of correlation 'r' deals with the statistical technique which measures the degree of relationship or association between the variables. This analysis will reflect the relationship between VAT and total revenue, VAT and total tax revenue and VAT and total indirect tax revenue to show the contribution of VAT in this particular term. Karl Pearson's correlation coefficient 'r' is used to find out the relationship among these mentioned variables. The following formula is used to calculate 'r'

$$r = \frac{N \sum dx \cdot dy - \sum dx \sum dy}{\sqrt{N \sum dx^2 - (\sum dx)^2} \sqrt{N \sum dy^2 - (\sum dy)^2}}$$

## **CHAPTER - IV**

### **PRESENTATION AND ANALYSIS OF DATA**

#### **4.1 Introduction**

This chapter is devoted to the analysis and presentation of primary and secondary source of data. Data obtained from various sources have been tabulated and presented in graphs and charts and analyzed to reach at some findings. This chapter has been divided into two sub-headings. They are: (i) Analysis of revenue structure of Nepal, Trend and Correlation analysis of VAT and (ii) Analysis of major issues and problems of implementation of VAT in Nepal, which are based on the primary source of data. The primary data were collected from the opinion survey. For the purpose of survey, different questionnaire were prepared to know the opinion of the various persons of different field (i.e. Tax officers, Employee of Trading Company, Employee of Manufacturing Company and General Public). The responses received from various respondents have been arranged tabulated and analyzed in order to facilitate the descriptive analysis of the study.

#### **4.2 Revenue Structure of Nepal**

Taxation is the main source of government revenue. It is also the pillar of fiscal policy. Taxes are compulsory contribution made by the individuals and business irrespective to direct benefit. The tax revenue, which is compulsory sacrifice of the peoples, can divide into two components i.e. direct tax and indirect tax. Those revenues collected as income tax, land tax, property tax, etc are direct tax and those revenues collected as sales tax, value added tax (VAT), customs and contract tax etc are an indirect tax. Another sides, the government has received other kinds of revenues, e.g. postal service charge, fees fines and forfeiture etc are non-tax revenues. Non-tax revenue are not imposed specially views of revenue collection. In Nepalese economy amount of tax revenue is generally higher than that of non-tax revenue. In Nepal, the contribution of tax revenue used to be almost 80% and non-tax revenue almost 20%.

Nepal has been facing growing resource gap rapidly. Despite over five decades of planned development efforts, Nepal has been suffering from resource constraint, massive poverty, rapid population growth, increasing frictional, seasonal and educational unemployment, aggressive dependence on agriculture, subsistence living standard and poor infrastructure. Most of the national economic activities are dependent upon agriculture and large portion of GDP originating from agricultural sector remains out of

the tax net. To solve the above mentioned problems Nepalese government has practiced deficit budget. Government deficit budget is defined as the excess of spending over its revenues. Fiscal deficit has been increasing continuously due to growing expenditure and low revenue performance in Nepal. In addition, the country has also been facing the increasing burden of foreign loan.

**Table 4.1**  
**Revenue Structure in Nepal**

*Rs. In million*

Year	Total Revenue	Tax Revenue	Tax Revenue as % of TR	Non Tax Revenue	Non Tax Revenue as % of TR
2000/01	48893.9	38865.1	79.49	10028.8	20.51
2001/02	50445.6	39330.6	77.97	11115	22.03
2002/03	56229.7	42586.9	75.74	13642.8	24.26
2003/04	62331.0	48173.0	77.29	14158	22.71
2004/05	70122.7	54104.7	77.11	16018	22.84
2005/06	72282.2	57430.4	79.45	14851.8	20.55
2006/07	87712.1	71126.7	81.09	16585.4	18.91
2007/08	107622.5	85129.6	79.10	22492.9	20.90
2008/09	143474.5	68080.2	47.45	75394.3	52.55
2009/10	179945.8	76987.3	42.78	102958.5	57.22

*Source: Economic Survey 2010, MOF, GON*

Above table 4.1 shows the structures of total revenue of the government after implementation of VAT. The contribution of tax revenue on total revenue in the year 2000/01 is 79.49%. There is slightly decreased in the year 2001/02. In the next year 2002/03 there is decrement of 75.74%, in the same following year 2003/04 the tax revenue increase the 77.29%. Likewise in the 2004/05 there is increment and in the year 2005/06 the percentage falls to 81.09%. After the above year the tax revenue is in the increase order till 2009/10 year.

### **4.3 Performance and Analysis of VAT**

Nepalese VAT is of consumption type and method used for deduction is tax credit method. Further VAT is subjected to destination principle, current threshold limit is 2 million and it is subjected to flat rate of 13 percent with zero percent rates on exports. Some selected goods are completely out of VAT net base, basically due to the administrative complexity and equity consideration. More than 60 percent of total VAT revenue comes from import and remaining is from other components.

The biggest virtue of VAT is that it is revenue buoyant and highly instrumental for resource mobilization especially an economy with an acute shortage of resources. VAT has been adopted in Nepalese economy including entertainment tax, hotel tax, contract tax and sales tax, since 1997 and has been established itself as a best instrument of resource mobilization.

#### **4.3.1 Registration**

This is the first step for the smoothly operation of VAT. The registration of firms subject to the tax is a master roll of taxpayers. In this process, all the vendors having a taxable business turnover are compulsory registered on VAT. Any business enterprises that have not compulsion for registration, if they desire to register can register voluntarily. However, there is no compulsion to register for the small vendors who have an annual turnover below the threshold. Trend of VAT registration in Nepal, is shown in table 4.2

Table 4.2 depicts that in initial stage of VAT introducing, the growth rate of VAT registration is high but for the time being the rate is reduced. In the past ten years average growth rate is 16.35 percent. In late years the growth rate can't move up 20 percent above. Until Potential taxpayers could not tie up with tax net. Effective monitoring and supervision is still required to expand the tax base.

**Table 4.2**

**Year-wise Number of VAT Registrant**

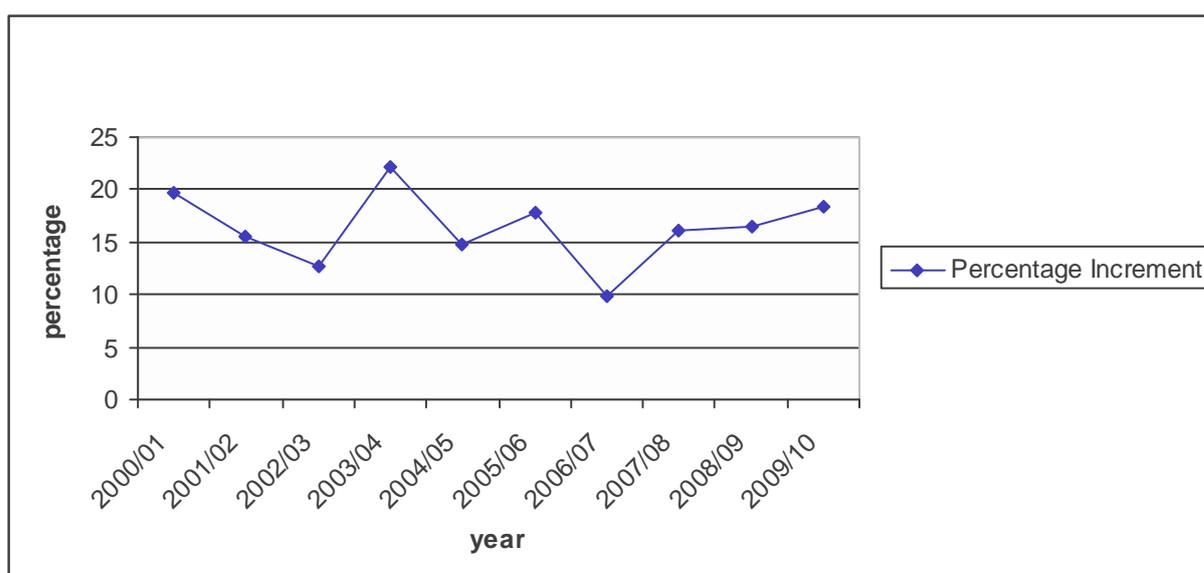
Fiscal year	No. of VAT Registrant	Rate of increase (%)
2000/01	21781	19.65
2001/02	25149	15.46
2002/03	28354	12.74
2003/04	34665	22.25
2004/05	39775	14.74
2005/06	46831	17.74
2006/07	51483	9.93
2007/08	59775	16.10
2008/09	69653	16.53
2009/10	82433	18.35
<b>Average growth rate</b>		<b>16.35</b>

*Source: Annual Report 2010, Inland Revenue Department*

Trend of annual growth in VAT registration can be clearly shown in figure below (figure 4.1).

**Figure 4.1**

**Trend of VAT Registration**



The table below (table 4.3) shows the tax payers' trend of canceling registration from VAT.

**Table 4.3**

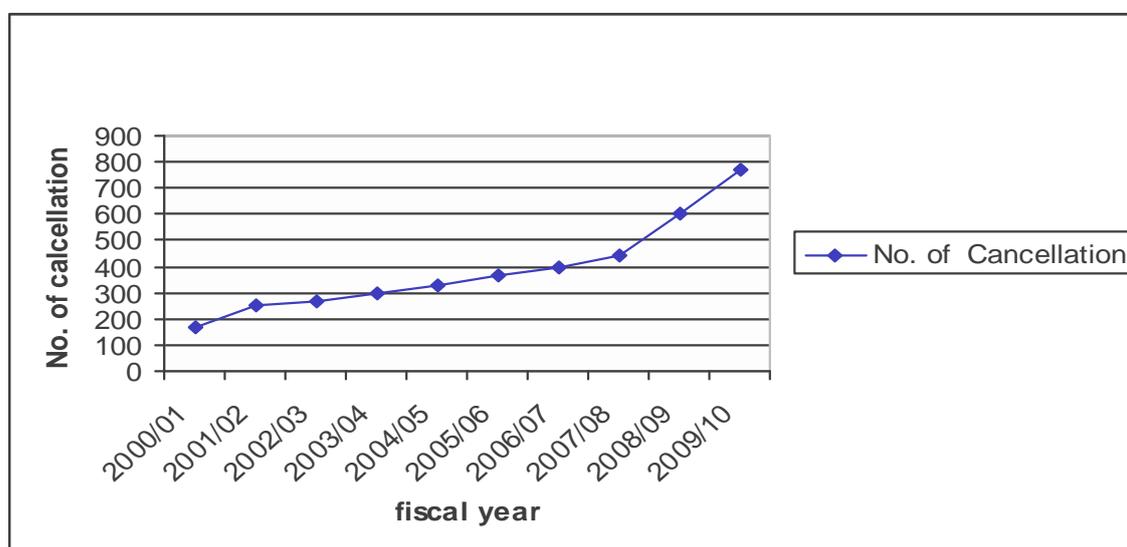
**Year-wise Number of VAT Cancellation**

Fiscal Year.	No. of Cancellation	Cumulative Total	Rate (%)
2000/01	170	170	-
2001/02	80	250	0.47
2002/03	18	268	0.07
2003/04	30	298	0.11
2004/05	30	328	0.10
2005/06	36	364	0.11
2006/07	31	395	0.09
2007/08	150	445	0.37
2008/09	158	603	0.35
2009/10	168	771	0.28

*Source: Annual Report 2010, Inland Revenue Department*

**Figure 4.2**

**Trend of VAT Cancellation**



The above Table 4.3 and figure 4.2 depict the data from the fiscal year 2000/2001 to 2009/2010 , according to which the taxpayers who cancelled their registration in the fiscal year 2000/2001 was by far the most huge number of those of the subsequent years, i.e. 170. This was followed by only 80 which show about half the decrease of the preceding year. The percentage 0.47 shows the significant decrease. In the fiscal year

2002/2003, the cancellation decreased even significantly, thereby hinting at the taxpayers' more inclination towards VAT. The trend stood almost constant from the fiscal years 2002/2003 to 2006/2007. From fiscal year 2008/09 the cancellations increase significantly. If this trend continues, hopefully, this number may decrease in the future. Obviously, more awareness programs must be held to transmit the taxpayers about the benefits of VAT

### 4.3.2 Non - Filers

There is a legal provision in the VAT law that all the registrants are required to submit their tax return after 25 days of completion of the tax period. It does not matter whether any transaction takes place within that period or not. It is necessary to submit the tax return within the specified time. Registrants who fail to submit their tax return is known as non-filers. The table 4.4 and figure 4.3 below illustrate the number of non-filers in each fiscal year from 2000/2001 to 2009/10.

**Table 4.4**  
**Status of VAT Non-Filer**

Year	Total Registration	Non-Filter	Percentage
2000/01	21781	5402	24.80
2001/02	25149	3680	14.63
2002/03	28354	4076	14.38
2003/04	34665	5487	15.83
2004/05	39775	7022	17.65
2005/06	46831	8275	17.67
2006/07	51483	10234	18.45
2007/08	59775	9050	15.15
2008/09	69653	13040	18.72
2009/10	82433	15240	19.89

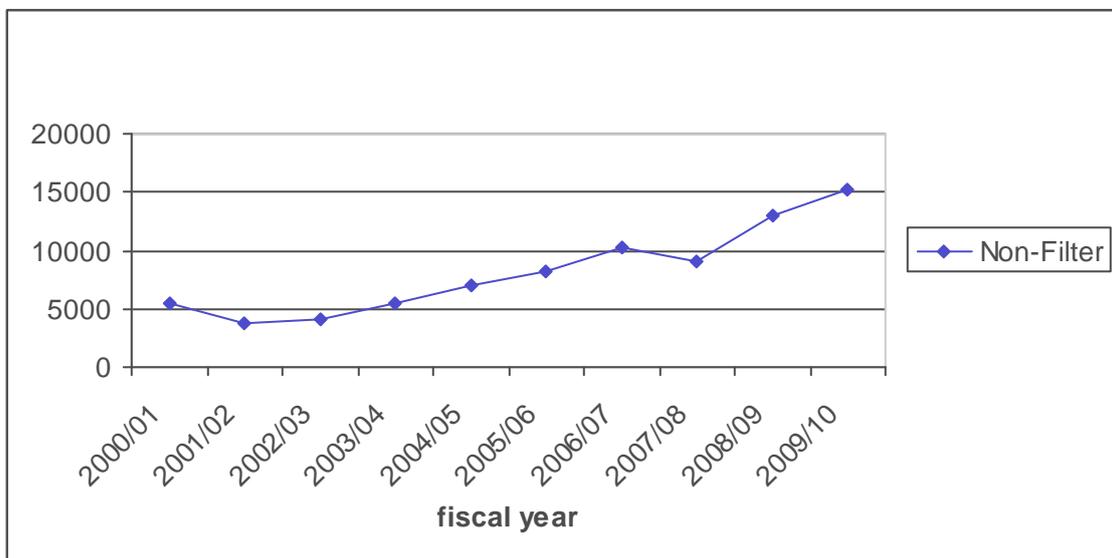
*Source: Annual Report 2010, Inland Revenue Department*

In above Table (Table 4.4) implies that initial stage of introducing VAT, percentage of submission is high but in recent year the trend is gradually reduced. It is a signal of indiscipline and ignorance of law. There is a need of regular monitoring and supervision. Reward and Punishment is also required.

Table 4.4 and figure 4.3 shows that the status of Non-filers in increasing trend from the fiscal years 2000/2001 to 2005/2006. In the fiscal year 2000/2001, only 4 percent failed to submit the tax return. But this trend was on the increase in each subsequent year until the fiscal year 2005/2006. In 2006/2007, the trend once again declined showing a significant check on taxpayers' habit of not submitting the tax return. On the other hand, it foretells a good sign for the future trend as well because it is said that the morning shows the day. But in the year 2008/09 and 2009/10 the table shows the exceeding ratio of non filers which is not a good indication for the economy.

**Figure 4.3**

**Status of VAT Non-Filer**



### 4.3.3 Revenue Collection from VAT

VAT is a most scientific, innovation and powerful tax with the quality of universal application for both developed and developing economics. The biggest virtue of VAT is that it is revenue buoyant and highly instrumental for resource mobilization especially in an economy with actual shortage of resources. Now VAT rate increased from 10% to 13% has a fairly comprehensive base including goods and services. It is consumption based and has a reasonable threshold that renders VAT administration practicable. Nepalese VAT system has already come a long way and that it should experience further revenue productivity in the future.

In spite of preliminary resistance, VAT is currently well received by the consumers as well as businessmen and industrial communities of Nepal. For this is

account based tax that lead to transparency and accountability both on the part of tax payers and tax collectors. The trend of Nepalese VAT collection was shown in the following table 4.5.

**Table 4.5**  
**Revenue Collection from VAT**

*Rs. In million*

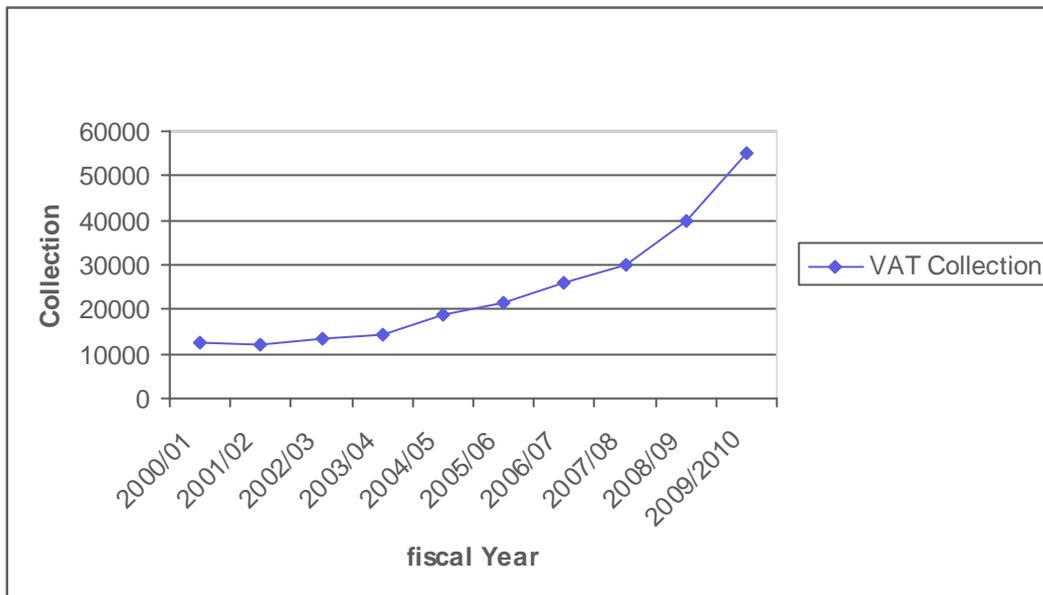
Year	VAT Collection	Growth Rate in %
2000/01	12382.4	-
2001/02	12267.3	-0.93
2002/03	13459.7	9.72
2003/04	14478.9	7.57
2004/05	18885.4	30.43
2005/06	21613.0	14.43
2006/07	26095.6	20.75
2007/08	29815.7	14.26
2008/09	39700.9	33.15
2009/2010	54920.9	38.34
Total VAT Collection	243619.8	
Average Growth Rate	16.865	

*Source: Annual Report, Inland Revenue Department*

Above Table 4.5 shows that VAT revenue collection was an increasing trend. Besides fiscal year 2001/02, in this fiscal year, the revenue collection was decreased in comparison of the past. This decrease in percentage was -0.93%. The net VAT revenue collection in the first VAT implementation fiscal year 1998/99 was Rs. 8765.9 million. The highest increasing percentage of VAT revenue collection was in the fiscal year 2009/10 which was 38.34%. The revenue collection in the fiscal year 2009/10 was Rs. 33811.480 million and increasing percentage was 38.34 %. The total VAT collection of 10 years (2000/2001-2009/2010) was 243619.8 and average growth rate of VAT collection was 16.865%.

**Figure 4.4**

**Trend of VAT Collection**



**4.3.4 Composition of VAT Revenue**

Nepalese VAT is of consumption type and method used for deduction is tax credit method. Further VAT is subjected to destination principle, current threshold limit is 2 million and it is subjected to flat rate of 13 percent with zero percent rates on exports. Some selected goods are completely out of VAT net base, basically due to the administrative complexity and equity consideration. More than 60 percent of total VAT revenue comes from import and remaining is from other components.

The biggest virtue of VAT is that it is revenue buoyant and highly instrumental for resource mobilization especially an economy with an acute shortage of resources. VAT has been adopted in Nepalese economy including entertainment tax, hotel tax, contract tax and sales tax, since 1997 and has been established itself as a best instrument of resource mobilization.

Total VAT collection is divided in to two parts. They are Domestic VAT and Imports VAT. Domestic VAT is collected from national goods and services which are produced or operated in Nepal. It is collected by Inland Revenue offices. Like wise Imported VAT is collected from imported goods at custom points by custom offices. Volume of its revenue depends up on foreign trade. In Nepal, most of the VAT is collected from imported goods. Ratio between Domestic VAT and Import VAT has large different. It is cleared by table 4.6 below.

**Table 4.6**  
**Composition of VAT Revenue**

*Rs. in million*

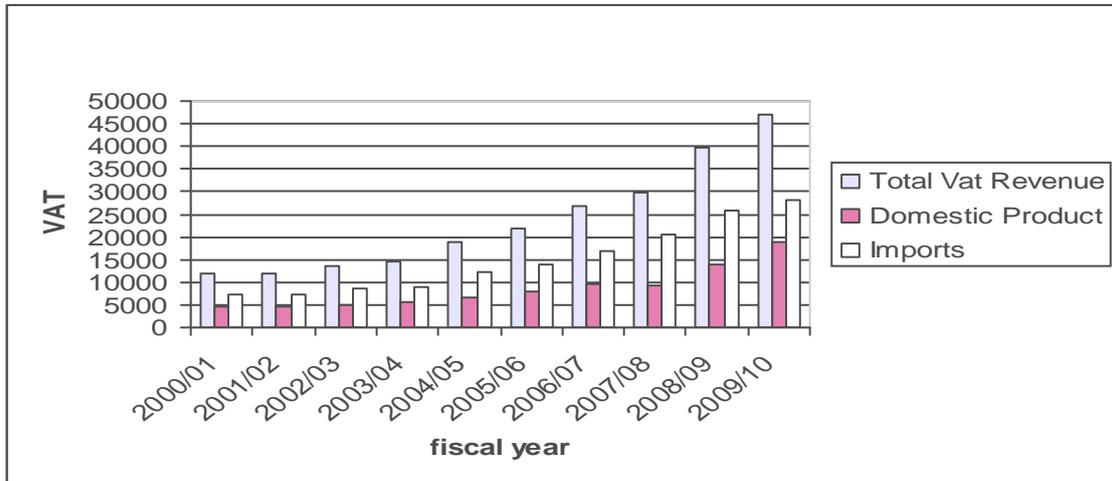
Fiscal Year	Total VAT Revenue	Domestic Product		Imports	
		Amount	%	Amount	%
2000/01	12382.4	4744.72	39.38	7303.04	60.61
2001/02	12267.3	4608.37	68.57	7339.58	61.43
2002/03	13459.7	4819.61	35.84	8629.51	64.16
2003/04	14478.9	5604.12	38.79	8874.77	61.42
2004/05	18885.4	6624.33	35.06	12270.29	64.94
2005/06	21613.0	8057.43	36.71	13888.58	63.29
2006/07	26095.6	9689.98	36.29	17014.20	63.71
2007/08	29815.7	9264.71	31.19	20438.5	68.81
2008/09	39700.9	13918.49	35.06	25782.43	64.94
2009/10	54920.9	18788.00	40.05	28122.00	59.94
Total	243619.8	86119.8	-	149663	-
Average	24361.98	8611.98	39.694	14966.3	63.325

*Source: Annual Report 2010, Inland revenue Department*

In above Table 4.6, total VAT collection, Domestic VAT collection and Import VAT collection and its ratio are presented. In fiscal year 2000/01, contribution of domestic and imported VAT revenue in total revenue was 39.38% and 60.61% respectively while in the fiscal year 2002/03 is 35.83% to 64.16%. In the fiscal year 2006/07, domestic products contributed 36.29% whereas imported goods contributed 63.71% in the total VAT revenue. In Nepalese VAT structure, collection from imports contribution about two-third and collection from domestic source occupies one-third only. In the fiscal year 2009/10 the total VAT revenue is 46910 where as domestic product is 18788(40.05%) and imports is 28122(59.94%).

**Figure 4.5**

**Composition of VAT Revenue**



**4.3.5 Target and Achievement of VAT revenue**

For effective mobilization of national revenue, fixation of target revenue collection is needed. All efforts should be made to achieve targeted goal. It helps to measure the capabilities of tax administration and to disclose its problems and prospects. In given table No.4.7, targeted VAT, collected VAT and percentage of target achieved, is shown from fiscal year 2000/2001 to 2009/10.

VAT was introduced in order to meet the revenue gap that government had been facing for a long time. In the fiscal year 2000/01 total Rs.12382.4 million was collected where as expected or targeted was Rs. 13500 million in the same year which is less by 8.28% than targeted. Similarly, in the fiscal year 2001/02 achieved VAT was Rs. 12267.2 million whereas targeted was Rs. 14750.00 million which is 16.83% less than targeted. However, by small margin of 1.92% only differ between targeted and achieved in the fiscal year 2002/03. In the fiscal year 2004/05, the revenue actually collected even exceeded the targeted one. In figure, the targeted revenue for that period was Rs. 16950 million where as the collected revenue amounted to Rs.18885.4, i.e. 11.42% more than the targeted one. But the boom period in revenue collection was to soon be followed by the depression when the 11.41% increase went far down to -8.61 in the fiscal year 2005/06 with the targeted revenue Rs. 23650 million and the actual collection only amounting to Rs. 21613.0 million. This trend seems to be improved again in the following fiscal year 2006/07 when the actual revenue marginally exceeded the targeted one by 1 percent. In the same way year2007/08 shows the little increment in the

collection of revenue where as in the year 2008/09 and 2009/10 the revenue collection decreased by 3.16% and 6.52% respectively. The change in the revenue collection was triggered partially by the major change in the Nepalese political scenario that took place in the aftermath of the people's movement part 2 on April 2005. Now as can be seen in the figure above, after for the last few years, comparatively the trend of revenue collection is good one although it is still in a fluctuating nature.

**Table 4.7**

**Target and Achievement of VAT revenue**

*Rs. In million.*

<b>Fiscal Year</b>	<b>Targeted</b>	<b>Achieved</b>	<b>% Change</b>
2000/01	13500.0	12382.4	-8.28
2001/02	14750.0	12267.3	-16.83
2002/03	13730.0	13459.7	-1.97
2003/04	15503.5	14478.9	-6.61
2004/05	16950.0	18885.4	11.42
2005/06	23650.0	21613.0	-8.61
2006/07	26463.0	26095.6	-1.39
2007/08	29651.9	29815.7	0.55
2008/09	41000.0	39700.9	-3.12
2009/10	51560.0	54920.9	6.52
Total	246758.4	243619.8	-
Average	24675.84	44294.5091	-2.832

*Source: Annual Reports 2010, Inland Revenue Department.*

#### **4.4 Contribution of VAT in Government Revenue**

##### **4.4.1 Contribution of VAT in Total Revenue**

VAT plays a vital role for revenue generation. The contribution of VAT in the total revenue is shown in the following table.

The following table 4.8 shows the contribution of VAT in total revenue. Above table, reveals that an average contribution of VAT to the total revenue is 26.929% in the fiscal year 2000/2001, its contribution was 25.33%, it kept increasing in the Year to 2005/06 by 29.90%, and in the next 3 fiscal years 2007/08, 2008/09 and it is found to be

decline in the ratio by 27.70% and 27.67 respectively and in 2009/10 the highest ratio is found in the study i.e. 30.52%.

**Table 4.8**

**Contribution of VAT in Total Revenue**

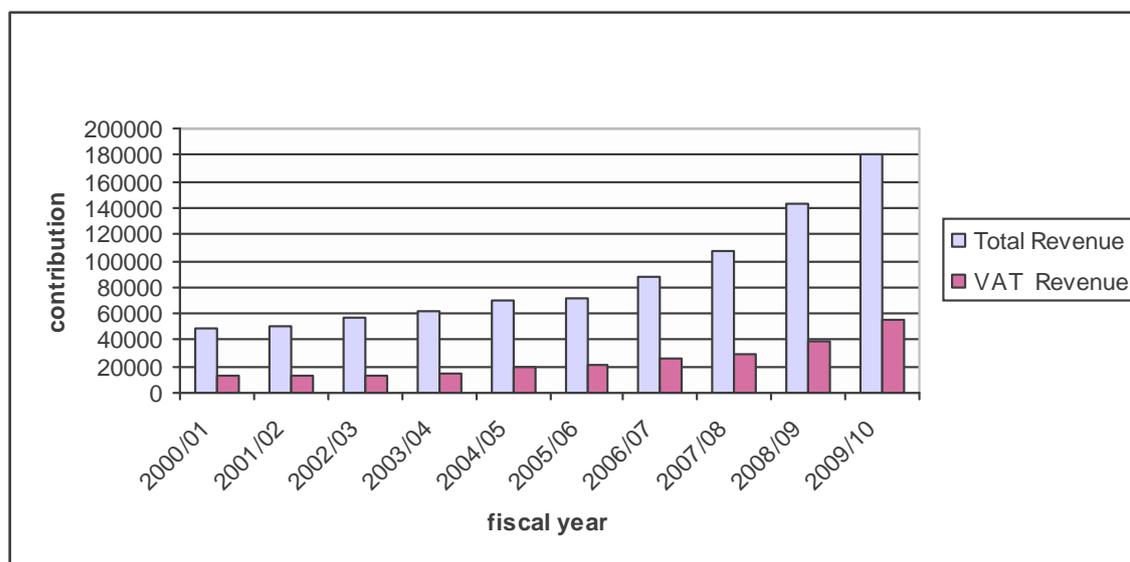
*Rs. In million*

Year	Total Revenue	VAT Revenue	% of VAT in TR
2000/01	48893.9	12382.4	25.33
2001/02	50445.6	12267.3	24.32
2002/03	56229.7	13459.7	23.94
2003/04	62331.0	14478.9	23.23
2004/05	70122.7	18885.4	26.93
2005/06	72282.2	21613.0	29.90
2006/07	87712.1	26095.6	29.75
2007/08	107622.5	29815.7	27.70
2008/09	143474.5	39700.9	27.67
2009/10	179945.8	54920.9	30.52
Average contribution of VAT in Total Revenue			26.929

Source: Economic Survey, 2010 (MOF, GON)

**Figure 4.6**

**Contribution of VAT in Total Revenue**



**4.4.2 Contribution of VAT on 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 4.9:

**Table 4.9**  
**Contribution of VAT on GDP**

*Rs. in Million*

Fiscal Year	GDP	VAT Revenue	% of VAT Revenue in total GDP
2000/001	413428.7	12382.4	2.99
2001/002	404482.0	12267.3	3.03
2002/003	468920.0	13459.7	2.87
2003/004	472424.0	14478.9	3.06
2004/005	504101.0	18885.4	3.75
2005/006	582950.0	21613.0	3.71
2006/007	670588.7	26095.6	3.89
2007/008	820814.0	29815.7	3.63
2008/009	960012.0	39700.9	4.14
2009/2010	1119210.0	54920.9	4.91
<i>Average contribution of VAT on GDP</i>			3.60

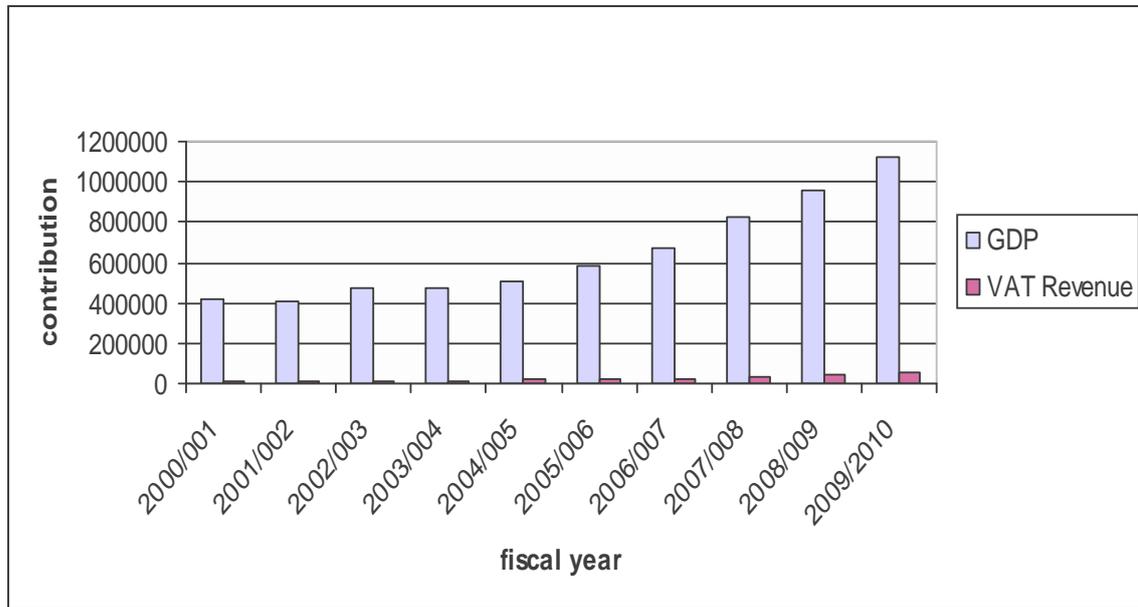
*Source: Economic Survey, 2010 (MOF, GON)*

Table 4.9 reveals that contribution of VAT revenue in GDP is 3.60 % in an average through the analysis period. The contribution made through VAT in GDP is very low. In fiscal year 2000/2001, total amount Rs. 12382.40 million was collected as VAT

which was only 2.99% of GDP. However, though insignificantly, the percentage shows the increasing trend, but very low percentage of GDP throughout all the years of analysis. The highest percentage i.e. 3.89% was recorded in the fiscal year 2006/2007 with VAT revenue amounting to 26095.6. So it can be said that the trend show an increasing trend although in a snail pace. So in conclusion, the contribution made through VAT in GDP is very low.

**Figure 4.7**

**Contribution of VAT in GDP**



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

The percentage contribution of VAT revenue in total tax revenue is presented in following Table.

The table 4.10 shows that there is high contribution of VAT in total revenue in Nepal. In the fiscal year 2000/01, the percentage of VAT in total tax revenue is 31.86%. Similarly in the fiscal year 2009/10 it was increased to 71.34% which is highest over study period. The average contribution of VAT to the total revenue is 39.86%, which is a fraction above the half of the total tax revenue. This proves that Nepalese tax revenue without the inclusion of VAT is unthinkable.

**Table 4.10**

**Contribution of VAT in Total Tax Revenue**

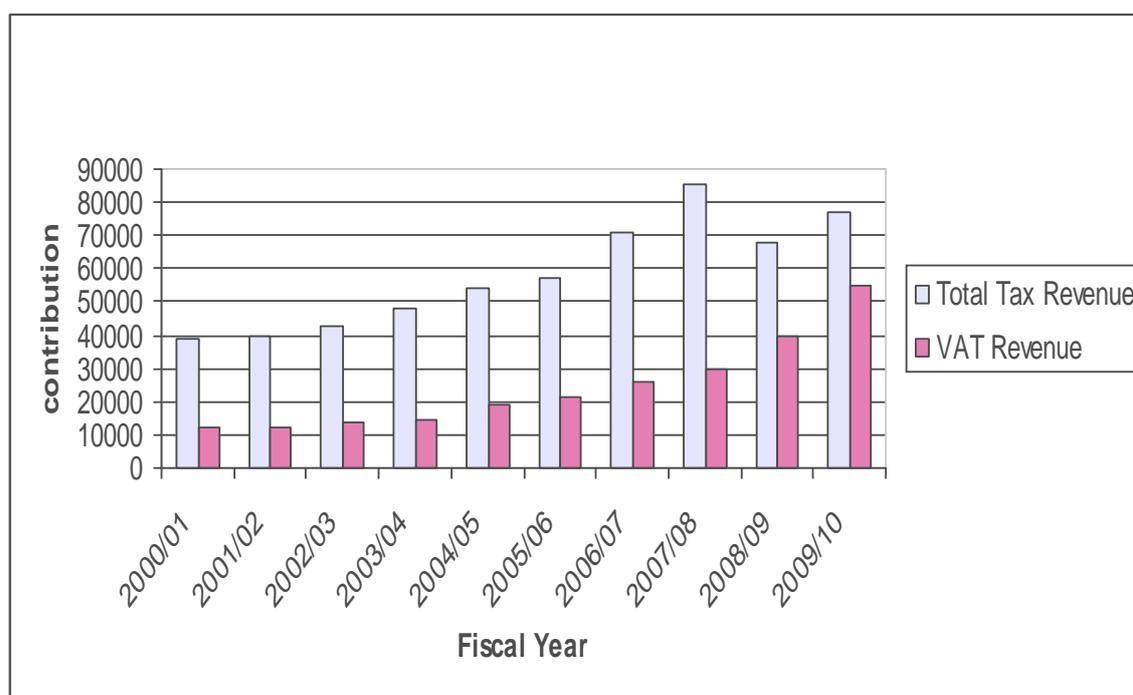
*Rs. in Million*

Fiscal Year	Total Tax Revenue	VAT Revenue	% of VAT on Total Tax Revenue
2000/01	38865.1	12382.4	31.86
2001/02	39330.6	12267.3	31.19
2002/03	42586.9	13459.7	31.61
2003/04	48173.0	14478.9	30.06
2004/05	54104.7	18885.4	34.91
2005/06	57430.4	21613.0	37.63
2006/07	71126.7	26095.6	36.69
2007/08	85129.6	29815.7	35.02
2008/09	68080.2	39700.9	58.31
2009/10	76987.3	54920.9	71.34
Average Contribution of VAT in Total Tax Revenue			39.862

Source: Annual Report 2010, Inland Revenue Department

**Figure 4.8**

**Contribution of VAT in Total Tax Revenue**



#### 4.4.4 Contribution of VAT in Total Indirect Tax Revenue

The following Table shows the contribution of VAT in total indirect tax.

**Table 4.11**

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

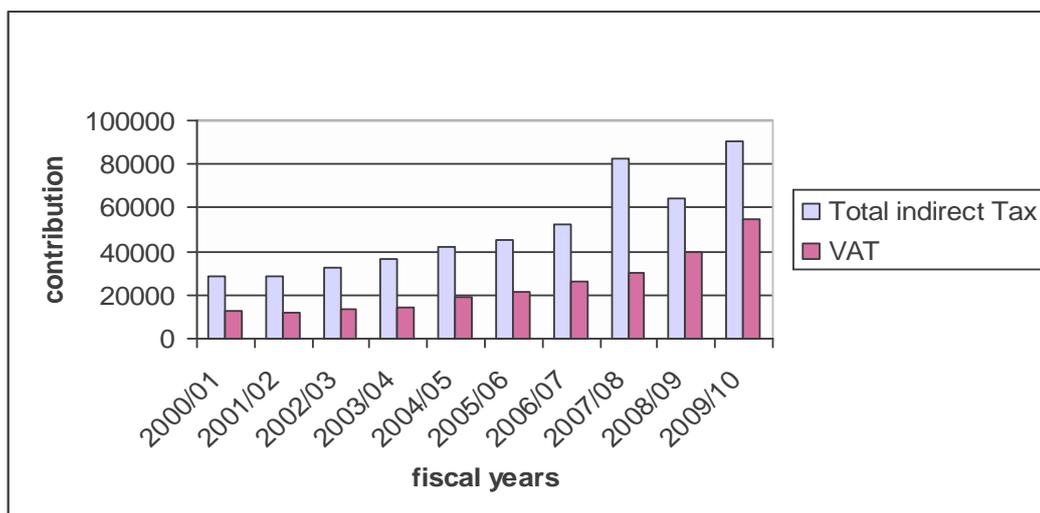
*Rs in million*

Fiscal Year	Total Indirect Tax	VAT	% of VAT Revenue on Total Indirect Tax
2000/01	28705.7	12382.4	43.12
2001/02	28733.1	12267.3	42.69
2002/03	32481.2	13459.7	41.44
2003/04	36260.4	14478.9	39.93
2004/05	41839.3	18885.4	45.14
2005/06	45563.8	21613.0	47.43
2006/07	52146.4	26095.6	50.04
2007/08	82820.8	29815.7	36.00
2008/09	64648.13	39700.9	61.41
2009/10	90819.01	54920.9	60.47
Average Contribution of VAT in Total Indirect Tax Revenue			46.767

Source: Economic Survey, 2010(MOF, GON)

**Figure: 4.9**

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



According to figure 4.9 provided in table 4.11 the contribution of sales tax/VAT in total indirect tax is reasonable as the increasing trend is satisfactory.

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

The analysis with the help of statistical tool is performed in this part taking 10 years data (2000/01 to 2009/10) includes the following statistical tools.

- a. Trend Analysis
- b. Coefficient of Correlation

### **4.5.1 Trend Analysis**

Trend estimation is a statistical technique to aid interpretation of data. When a series of measurements of a process are treated as a time series, trend estimation can be used to make and justify statements about tendencies in the data. By using trend estimation it is possible to construct a model which is independent of anything known about the nature of the process of an incompletely understood system (For example, physical, economic, or other system). This model can then be used to describe the behavior of the observed data.

In particular, it may be useful to determine if measurements exhibit an increasing or decreasing trend which is statistically distinguished from random behavior.

Under this topic effort has been made to analyze trends in composition of VAT in Nepal. On the basis of 10 years of data, the revenue amount of VAT from domestic product and import has been forecasted.

Here, in case of this study, each domestic VAT and import VAT at a time is considered as the main variable and denoted by  $y$ ,  $x$  is the base year, and here all the years are denoted by  $t$ . The following table shows the trend values of domestic product VAT and import VAT from FY 2000/01 to 2009/10.

**Table 4.12**

**Trend Value of Domestic Product VAT Revenue and Import VAT Revenue**

Year (t)	$Y_c = a + bx$ (trend value of domestic product VAT)	$Y_c = a + bx$ (Trend value of import VAT)
2000/01	2408.069	4014.87
2001/02	3786.715	6448.519
2002/03	5165.361	8882.168
2003/04	6544.007	11315.82
2004/05	7922.653	13749.47
2005/06	9301.299	16183.11
2006/07	10679.95	18616.76
2007/08	12058.59	21050.41
2008/09	13437.24	23484.06
2009/10	14815.88	25917.71

*Source: Appendix 5*

Therefore by the help of trend analysis it is found that the value of domestic product VAT and import VAT for past ten years. By adopting same formula of trend we can get the future trend value of domestic product and import product VAT which will reflect the trends in composition of VAT. Following table reveals the trend value of domestic and import VAT for next 10 years.

From the computation of table 4.13 it can be conclude that both total VAT revenue and its composition component are in increasing trend, however, contribution of revenue from domestic product in total VAT is continuously decreasing, in contrary the contribution of VAT revenue from import is continuously increasing in total VAT revenue.

**Table 4.13****Trend of Domestic Product VAT Revenue and Import VAT Revenue****For Next 10 Years**

Financial Year	Trend value of Domestic product VAT	Trend value of Import VAT	Total VAT*	% Contribution of Domestic product VAT on total	% Contribution of Import VAT on total VAT
2010/11	16194.53	28351.36	44545.89	36.35	63.65
2011/12	17573.18	30785.01	48358.19	36.34	63.67
2012/13	18951.82	33218.66	52170.48	36.33	63.68
2013/14	20330.47	35652.31	55982.78	36.32	63.68
2014/15	21709.11	38085.96	59795.07	36.31	63.69
2015/16	23087.76	40519.61	63607.37	36.30	63.70
2016/17	24466.41	42953.25	67419.66	36.29	63.71
2017/18	25845.05	45386.90	71231.95	36.28	63.72
2018/19	27223.70	47820.55	75044.25	36.28	63.72 4
2019/20	28602.34	50254.20	78856.54	36.27	63.73

*Source: Appendix 5*

\* Obtained by addition of Column 2 and 3.

#### **4.5.2 Correlation Analysis**

The coefficient of correlation 'r' deals with the statistical technique which measures the degree of relationship or association between the variables. To fulfill the purpose of this study, this statistical tool has been used. This analysis will reflect the relationship between VAT and total revenue, VAT and total tax revenue and VAT and total indirect tax revenue to show the contribution of VAT in this particular term.

Under this chapter, Karl Pearson's correlation coefficient 'r' is used to find out the relationship among these mentioned variable. The value of coefficient of correlation is calculated in between -1 to +1. The negative value of 'r' signifies negative relationship

between the variables i.e., increase in one variable, causes decrease in another and vice-versa.

#### **4.5.2.1 Correlation between VAT and Total Revenue**

The coefficient of correlation 'r' between VAT and total revenue measures the degree and relationships between these two variables. The purpose of computing coefficient of correlation between VAT and total revenue is to find out whether VAT is significantly contributed in total revenue or not.

To find out the Karl Pearson's correlation 'r' between VAT and total revenue, VAT (y) is assumed to be independent variable and total revenue (x) is assumed to be dependent variable. The assumption is made that total revenue will decrease or increase as increase or decrease in VAT. The correlation between VAT and total revenue is shown in the Appendix-6. The value of r is calculated in between -1 and +1. The negative value of 'r' signifies the opposite relationship between the variable i.e. increase in VAT will lead decrease in total revenue and vice-versa. While positive value of 'r' shows the positive/similar relationship between the variables. The value of r,  $r^2$ , PEr and 6PEr between VAT and total revenue is given below:

$$r = 0.99$$

$$r^2 = 0.9801$$

$$\text{PEr} = 0.0042$$

$$6\text{PEr} = 0.0252$$

From the above value of r,  $r^2$ , PEr and 6PEr, it is found that the coefficient of correlation 'r' between VAT and total revenue is 0.99. This shows the highly positive relationship between VAT and total revenue. The value of coefficient determination  $r^2 = 0.9801$ . It means that there will be the variation in total revenue 98.01% due to VAT and remaining 1.99% by other factors, moreover r higher than the probable error (6PEr). Therefore the value of r is significant. It can be concluded that there is a significant relationship between VAT and total revenue. In another words, VAT has contributed a significant amount in total revenue of Nepal.

#### **4.5.2.2 Correlation between VAT and GDP**

To identify the impact and contribution of VAT in total tax revenue, correlation between these two variables should be calculated. To find out the Karl Pearson's

coefficient of correlation 'r' between VAT and total tax revenue, VAT (y) is assumed as independent variable and total GDP (x) is taken as a dependent variable. The correlation between VAT and total GDP is shown in Appendix-9. The value of r is calculated between +1 to -1. The negative value of r signifies the opposite relationship between the variables and vice-versa.

$$r = 0.985$$

$$r^2 = 0.970$$

$$PEr = 0.0064$$

$$6PEr = 0.0384$$

Here, the coefficient of correlation between VAT and total tax revenue is 0.99. It seems to be near +1. This shows that there is highly positive relationship between VAT and total tax revenue. The value of coefficient determination ( $r^2$ ) is equal to 0.9801 which implies that there will be the variation in total revenue 98.01% due to VAT and remaining due to by other factor. Similarly 'r' is for higher than 6PE so that it can be made conclusion that the value of r is significant. VAT has large contribution on total tax revenue.

#### **4.5.2.3 Correlation between VAT and Total Tax Revenue**

To identify the impact and contribution of VAT in total tax revenue, correlation between these two variables should be calculated. To find out the Karl Pearson's coefficient of correlation 'r' between VAT and total tax revenue, VAT (y) is assumed as independent variable and total tax revenue (x) is taken as a dependent variable. The correlation between VAT and total tax revenue is shown in Appendix -7. The value of r is calculated between +1 to -1. The negative value of r signifies the opposite relationship between the variables and vice-versa.

$$r = 0.80$$

$$r^2 = 0.64$$

$$PEr = 0.077$$

$$6PEr = 0.463$$

Here, the coefficient of correlation between VAT and total tax revenue is 0.80. This shows that there is positive relationship between VAT and total tax revenue. The

value of coefficient determination ( $r^2$ ) is equal to 0.64 which implies that there will be the variation in total revenue 98.01% due to VAT and remaining due to by other factor. Similarly 'r' is for higher than 6PE so that it can be made conclusion that the value of r is significant. VAT has large contribution on total tax revenue.

#### **4.5.2.4 Correlation between VAT and Total Indirect Tax Revenue**

Correlation between VAT and total indirect tax reflects the contribution of value added tax on total indirect tax. The value of correlation coefficient along with other necessary instrument of correlation shown in the Appendix – 8.

The following are the respective value of:

$$r = 0.915$$

$$r^2 = 0.837$$

$$PEr = 0.035$$

$$6PEr = 0.209$$

Here, the coefficient of correlation between total indirect tax and VAT is 0.915. Then it shows the positive relationship and if VAT increases total indirect tax will also increase. The value of coefficient of determination is  $r^2 = 0.837$ , it means that there will be the variation of 98.01% in total indirect tax due to VAT and remaining is due to other factors. However, the value of 6PEr is less than r so value of r is significant. It can be said that VAT has major contribution on total indirect tax.

#### **4.5.3 Conclusion of Trend and Correlation Analysis of VAT**

Through the analysis of time series, we can conclude that there will be higher potentiality in VAT revenue. So government must pay higher attention in VAT for effective resource mobilization. After analyzing the coefficient of correlation between VAT and total revenue, VAT and total tax revenue and VAT and indirect tax, we can conclude that VAT has contributed a significant percentage in total revenue, total tax revenue and total indirect tax. Because they have higher positive relationship (near about one) similarly, there is more than 90% variation due to VAT in total revenue, total tax revenue and total indirect tax revenue. And all these relationship are significant as  $r > 6PEr$  everywhere. So VAT has significant contribution in government revenue. And all these relationship are significant as  $r > 6PEr$  everywhere. So VAT has significant contribution in government revenue.

## **4.6 Survey Results**

### **4.6.1 An Empirical Investigation of VAT**

There have been various empirical studies conducted implementation of VAT system in Nepal. It is viewed that this system has not been implemented effectively as expected. There was a strong opposition from the business community during the earlier period of VAT implementation. In that time, there was a negotiation between private sector and government on the different aspects and provisions of VAT. After that, VAT was extended through the retail level and thus implemented in its full-fledged form. In the beginning period of VAT implementation, there was lack of skilled and trained manpower and setup properly. But currently different informative programs, seminars and meeting were held to make the businessmen. General publics and people know to the VAT currently business community is also in favor of VAT and further demanding to identify and include into the tax net. In such situation an empirical study is done to know the views of person of different field on different issues of VAT. For the purpose of survey, different questionnaire were prepared to know the opinion of the various persons of different field (i.e Tax Officer, Employees of Trading Company, Employees of Manufacturing Company and General Public). The responses received from various respondents have been arranged tabulated and analyzed in order to facilitate the descriptive analysis of the study.

The questionnaires were asked either for a yes/no response or for ranking of choice according to number of alternatives, where first choice was most important and last choice was least important for analysis purpose. Choices were assigned to weights according to number of alternatives. If the number of alternatives were seven, then the first preferred choice got seven points and the last preferred choice got one point. Any alternatives, which were not ranked, did not get one point. The total points available to each choice were converted into percentage in reference to the total point available for all choices. The choice with the highest of score of percentage was ranked as the most important choice and one with the lowest percentage being ranked as last choice.

### **4.6.2 Knowledge about VAT**

VAT is newly introduced scientific tax system so everybody should be educated about it. About VAT education, few people are aware with this 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.

The question was "From which media you know about VAT" the opinion survey on this context is summarized in the table 4.14.

**Table 4.14**

**Knowledge about VAT**

Respondents	Radio/FM		TV		Hording Board		Pamphlets		Daily Newspaper		Total
	No.	%	No.	%	No.	%	No.	%	No.	%	
Tax Officers	6	30	4	20	-	-	-	-	10	50	20
Employees of Trading Companies	3	20	5	30	1	10	1	10	5	30	15
Employees of Manufacturing Companies	6	40	5	30	-	-	2	10	3	20	15
General Public	9	30	6	20	3	10	-	-	12	40	30
Total	24	30	20	25	4	5	3	5	30	38	80

*Source: Opinion Survey, 2012*

According to the survey 30% of the total respondents were known about it from Radio/FM. Similarly 25%, 5%, 5% and 38% of the total respondents get idea about VAT from TV, Hording Board, Pamphlets and Daily Newspapers respectively.

### **4.6.3 View of Billing System**

VAT is based on billing system. So that issuance of proper bill is necessary for the successful implementation of VAT. In other words, the success of VAT depends on bill issuance by traders and compulsory receipt of bills by general public. In Nepal, however the widespread practice of not issuing VAT registered bill while selling goods is still an impediment in the effective implementation of VAT, paralyzing the government commitment to develop VAT as the backbone of revenue collection. Even after eleven years of enforcement of VAT, general publics are unaware of the significance of billing system. The culture of asking for bills while purchasing goods has not developed in spite of government's commitment and administrative efforts. Due to the lack of public awareness about billing system, very few people ask bills for their purchases. Thus, the billing system could not play crucial role in the field of VAT system. With out proper

billing system principle of VAT could not effectively implement. Therefore, it should be compulsion to issue VAT bill for all level of purchase and selling for effective implementation of VAT. In Nepal the billing system has been one of the main burning problems. The respondent related to different field have given their views on billing system are given below.

In order to know the opinion of the respondents about proper implement ability of VAT bill in all level a question "What do you think about the possibilities of good implementation billing system in VAT administration in Nepal?" has been asked. The respondents have to choose one among four answers. The responses of the various respondents are presented below.

According to the opinion survey, 80 percent tax officers, 60 percent employees of trading company, 80 percent employees of manufacturing company and 70 percent general public or in total 72.5 percent respondents advocate for the possibility of billing system in VAT. Similarly, 20 percent employees of trading company, 10 percent general public or in total 7.5 percent respondents claim that billing system is not possible. While at the same time 10% tax officers, 20 percent employees of trading company, 20 percent employees of manufacturing company or in total 10 percent respondents says that billing system is costly. Like wise, 10 percent tax officers and 20 percent General public or in total 10 percent respondent's views that total billing system in VAT is impracticable. Out of total samples (respondents) 72.5% say possible, 7.5% say not possible, 10% say Costly, and 10% say impracticable.

**Table 4.15**

**View of Billing System**

Respondents	Possible		not possible		Costly		impracticable		Total
	No.	%	No.	%	No.	%	No.	%	
Tax Officer	16	80	-	-	2	10	2	10	20
Employees of Trading Company	9	60	3	20	3	20	-	-	15
Employees of Manufacturing Company	12	80	-	-	3	20	-	-	15
General Public	21	70	3	10	-	-	6	20	30
Total	58	72.5	6	7.5	8	10	8	10	80

Source: Opinion Survey, 2012

On the basis of result of above field survey it is concluded that most of the respondents view that billing system is possible. We should be never forget that it is possible gradually not at once time because our tendency is difficult to change over a night. Tax administration, general publics and business entity should be committed for effective implementation of billing system in VAT.

#### **4.6.4 Demanding of VAT bill**

The implementation aspect of VAT has been weak owing to the lack of practice of issuing and receiving invoices. Hence, the tax collection and other economic benefits from this tax have not been achieved at the expected level. Despite the policy changes that were introduced to establish a proper billing system, the practice of issuing and receiving proper invoices could not be established and there is still a lack of this practice in the market. While some have been issuing improper invoices others have been stating that an additional 13% has to be paid if invoices are required. Similarly, the problem of under invoicing at the customs has not been reduced. Billing has been seen as the biggest problem in the implementation of VAT. Therefore, at this point priority should be given to inculcating the habit of issuing and receiving invoices (Khadka, 2001).

As while introducing VAT there is fear amount the general public and organization that it will raise the price of goods and services, So general public always makes excuses to demand bill due to lack of education that VAT bill does not allow the increment of price of goods. Government has provided limitations for payment of VAT but general public always went to stay below the level to escape from the VAT. This trend seems in the context of Nepal. It is necessary to key the revenue of the nation transparent.

In order to know the opinion of the respondents about percentage of total customers demanding VAT bills a question *"In your opinion what percentage of the total customers is demanding VAT bills?"* has been asked. The respondents have to choose one among four answers. The responses of the various respondents are presented below:

**Table 4.16****Percentage of Customers Demanding VAT bill**

Respondent	Around 10%		Upto 20%		20 to 60%		Above 60%		Total
	No.	%	No.	%	No.	%	No.	%	
Tax Officer	16	80	4	20	-	-	-	-	20
Employees of Trading Company	15	100	-	-	-	-	-	-	15
Employees of Manufacturing Company	9	60	6	40	-	-	-	-	15
General Public	18	60	12	40	-	-	-	-	30
Total	58	72.5	22	27.5	-	-	-	-	80

Source: *Opinion Survey, 2012*

According to the VAT bill demanding by general public is it too low in practice. Out of 80 respondents 72.5% agreed around 10% general public demand VAT bill where as 27.5% respondent around 20% ask for VAT bill. They also mention that the governmental and other client, who is forced to need VAT bills by their rules and regulation, only demand VAT bills.

#### **4.6.5 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.

In order to know the opinion of the respondents about habit of taking bills on purchase a question "*May I know about your habit of taking bills on purchase*", has been asked. The respondents have to choose one among four answers. The responses of the various respondents are presented below:

**Table 4.17****Habit of Taking Bills on Purchase**

Respondent	Yes on every Purchase		Yes, on most of the Purchase		Yes, But not Regular		No, I never get any bill		Total
	No.	%	No.	%	No.	%	No.	%	
Tax Officer	8	40	6	30	4	20	2	10	20
Employees of Trading Company	7	47	4	27	2	13	2	13	15
Employees of Manufacturing Company	8	53	5	33	-	-	2	14	15
General Public	4	13	6	20	2	7	18	60	30
Total	27	34	21	26	9	11	24	30	80

*Source: Opinion Survey, 2012*

According to the public opinion survey, it shows that 40% of tax officers, 47% of employees of trading company, 53% of employees of manufacturing company and 13% of general public have the habit of taking bills on their every purchase. In total 33.75% of people take bills on their every purchase. Around 26.25% people are taking bill on their most of purchase but they are not fully confident that bills provided by sales person are not forged. About 11.25% 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. 30% of people complain that they are not given any bill when they buy goods or services. It is a liability of every salesman to produce the bill whereas demand for bills is the lawful right of every customer.

#### **4.6.6 Major weaknesses of VAT Implementation**

The VAT should be introduced after a considerable level of the preparation creating infrastructure organizing a proper and the efficient administration and providing minimum required level of taxpayer education in Nepal. If the VAT is implemented hurriedly on presumptive basis without making the full presumptive basis without making the full and adequate preparation the VAT system could be distractive and counter productive in least developed country like Nepal.

In order to know the major weakness of VAT implementation, respondents were requested to rank their responses on the given choice. The question “*What are the major weaknesses of VAT implementation in Nepal?*” has been asked.

The major weaknesses of VAT implementation ranked in the order of preference of the respondents are as follows:

1. Lack of consciousness of tax payers.
2. Problem in billing system.
3. Costly system in management.
4. Administration corruption.
5. Lack of public awareness.

Which are shown in the below table 4.18

**Table 4.18**

**Major Weaknesses of VAT Implementation**

S.N.	Weaknesses of VAT	No. of Respondents	%	Rank
1	Problem in billing system	13	16%	2
2	Lack of consciousness of tax payers	15	19%	1
3	Administration corruption	9	11%	4
4	Problem on tax refund	6	7.5%	7
5	Weakness of Government Economic policies	5	6%	8
6	Lack of awareness in public	8	10%	5
7	Lack of mutual understand between tax payers and tax administration	7	9%	6
8	Lack of lunching enough special programs	4	5%	9
9	Difficult account system	3	4%	10
10	Costly system management	10	12.5%	3

*Source: Opinion Survey, 2012*

#### 4.6.7 Areas of Major Problems in the Process of VAT Collection.

The tax payer and the tax collectors both have to be well known and conscious about the record keeping and process of VAT system. Through 14 years have been already passed, but still it has a great challenge in this aspect. The respondents were asked for their views to explore the problems that implementation aspect is facing. The study shows registration collection, tax refunds are main problems for the implementation.

In order to know the opinion of the respondents about habit of taking bills on purchase a question *"In your opinion, what are the areas of major problems in the process of VAT collection in Nepal?"* has been asked. The respondents have to choose one among four answers. The responses of the various respondents are presented in above table 4.19.

**Table 4.19**

**Views on Areas of Major Problems in the Process of VAT Collection**

Respondent	Registration		Collection		Tax refund		I don't know		Total
	No.	%	No.	%	No.	%	No.	%	
Tax Officer	9	60	3	20	3	20			20
Employees of Trading Company	4	40	4	40	2	20			15
Employees of Manufacturing Company	2	20	3	30	5	50			15
General Public	6	30	4	20	8	40	2	10	30
Total	26	37	20	29	21	30	3	4	80

*Source: Opinion Survey, 2012*

From the table 4.17 it is found that 60% tax officers, 40% employees of trading company, 20% employees of manufacturing company, 30% general public agreed around 37% in total showed registration as the problem while for 20% Tax Officer, 40% Employees of Trading Company, 30% Employees of Manufacturing Company, 20% General Public and in total 29% agreed in collection in problem. Similarly for 20% tax officers and employees of trading company, 50% employee of manufacturing company,

40% general public and in total 30% viewed in refund problem. 10% general publics are unknown about it.

#### 4.6.8 Legal Provision for Proper Implementation of VAT

Legal provision is the most important part of VAT system. It regulates all of taxation procedure, tax coverage, zero rates, tax exempt, right and duty of tax administration and taxpayer and so many other provisions related to VAT system. Without legitimate law, no any state could impose tax to their citizens in modern rule of law system. Policy of government, providing facilities to taxpayer, nature of tax administration and so on aspects are depicted in tax law. So, legal provision of VAT plays crucial role for effective implementation of VAT.

The government of Nepal has prepared VAT Act 2052 B.S. and VAT regulation 2053 B.S. Generally, they are amending by every year's finance act when government realized to change or to add any provision in VAT law. The field survey has been conducted to find out whether the act and regulation are sufficient or not with reference to present VAT system.

The responses of the various respondents are presented below:

**Table 4.20**

#### **Views on Present Legal Provision**

Respondents	Sufficient and appropriate		Insufficient and need to improve		complex and require simplifying		I don't know		Total
	No.	%	No.	%	No.	%	No.	%	
Tax officer	12	60	4	20	4	20	-	-	20
Employees of trading company	6	40	8	53	1	7	-	-	15
Employees of manufacturing company	2	13	8	53	3	20	2	14	15
General public	6	20	12	40	6	20	6	20	30
<b>Total</b>	<b>26</b>	<b>32.5</b>	<b>32</b>	<b>40</b>	<b>14</b>	<b>17.5</b>	<b>8</b>	<b>10</b>	<b>80</b>

*Source: Opinion Survey, 2012*

The study shows 60 % Tax officer, 40 % employees of trading company, 13 % employees of manufacturing company and 20% general public or 32.5% in total respondents said that present legal provision is sufficient and appropriate. While, 20% Tax officer, 53 % employees of trading company, 53 % employees of manufacturing

company and 40 % general public or 40 % in total respondents claim that the present act and regulation are insufficient and need to improve. Similarly, 20% Tax officer, 7 % employees of trading company, 20 % manufacturing company and 20 % general public or 17.5 % in total respondents suggest that present legal provision is complex and require simplifying. Where as, 14% employees of manufacturing company and 20 % general public or 20% in total respondents have no idea about the act and regulation. It shows that the publicity of legal provision of VAT is lacking.

From the above table 4.18 shows that most of the respondents identified present VAT law is insufficient and need to improve. Thus, we can say that the VAT act and regulation should be reviewed for implementation of VAT properly.

#### 4.6.9 Responsible for Tax Evasion

Tax evasion is the great problem of our country. Tax Evasion not only tosses the revenue but also creates distortions, market imperfection, encourage illegal business, decline business ethics etc. There are many groups such as general publics and administration who always support business enterprise for tax evasion for their benefits. The field survey is conducted to provide the views on most responsible group for tax evasion among respondents.

The responses of the various respondents are presented below:

**Table 4.21**

#### **Views on Responsible Group of Tax Evasion**

Respondents	Business Enterprise		consumers		Tax Administration		Auditors		All of them		Total
	No.	%	No.	%	No.	%	No.	%	No.	%	
Tax officer	12	60	6	30	-	-	2	10	-	-	20
Employees of trading company	3	20	6	40	3	20	3	20	-	-	15
Employees of manufacturing company	-	-	1	7	10	67	4	26	-	-	15
General public	15	50	1	3	6	20	5	17	3	10	30
Total	30	37.5	14	17.5	19	23.75	14	17.5	3	3.75	80

Source: Opinion Survey, 2012

Opinion Survey shows that 60 % tax officer, 20 % employees of trading company and 50 % general public or 37.5 % in total respondents said that business enterprises are most responsible for tax evasion under VAT system. Similarly, 30% Tax officer, 40% employees of trading company, 7% employees of manufacturing company and 3% general public or in total 17.5 % of respondents claim that general public are responsible for tax evasion. Like wise, 20 % employees of trading company, 67 % employees of manufacturing company and 20 % general public or 23.75 % in total respondents said that the tax administration is the most responsible for tax evasion. At the same time, 10 % Tax officer, 20 % employees of trading company, 26 % employees of manufacturing company and 17% general public or 17.5% in total respondents claim that auditors are most responsible for tax evasion. Where as, 10 % general people say all of them (business enterprises, general public, tax administration, and auditors) are responsible for tax evasion.

From Above survey result, it can easily say that tax administration and business enterprises are major accountable for tax evasion. They are top ranked by most respondents for tax evasion according to survey result. They are blamed to each other for tax evasion. In fact, both of them are responsible and can't escape by giving blame to another group. In practical field all of them are responsible for tax evasion.

#### **4.6.10 Major Issues of VAT Implementation**

The taxpayers as well as the tax collectors must be more conscious for the successful implementation of VAT because it is new and advanced tax system. Since eleven years experience, it is found that the future success of VAT basically depends on its implementation aspects. In our country there are many problems of VAT. Respondents are asked to identify the major issues of VAT. There may be so many problems in implementation of VAT system. For simplicity of research study, smuggling and under valuation, lack of proper billings, lack of proper account and weak tax administration are identified as major problems.

In order to know the opinion of the respondents about current issues of VAT implementation in Nepal a question "*In your opinion, which are the current issues of VAT implementation in Nepal?*" has been asked. The respondents have to choose one among four answers. The responses of the various respondents are presented below:

**Table 4.22****Views on Major Issues of VAT Implementation**

Respondents	Smuggling and under valuation		Lack of proper Billing		Lack of proper Account		Weak tax administration		I don't know		Total
	No	%	No	%	No	%	No	%	No	%	
Tax officer	4	20	12	60	4	20	-	-	-	-	20
Employees of trading company	3	20	8	50	-	-	4	30	-	-	15
Employees of manufacturing company	3	20	10	67	-	-	2	13	-	-	15
General public	5	16	18	60	2	7	2	7	3	10	30
Total	15	18.75	48	60	6	7.5	8	10	3	3.75	80

*Source: Opinion Survey, 2012*

According to the field survey, it is found that 20% of tax officer, employees of trading company, employees of manufacturing company and 16% general publics or in total 18.75% of total respondents say that smuggling and under valuation is the most challenging problem of VAT implementation. Similarly, lack of proper account is also the problem of VAT effectiveness. 60% of tax officer, 50% of employees of trading company, 67% employees of manufacturing company and 60% general public or in total 60 % of total respondent believes that lack of proper billing system is the main problem of VAT implementation. Like wise, 20% of tax officer and 7% of general public or in total 7.5% of total respondent believes that lack of proper account system is main problem of VAT implementation. Besides this, 30% of employees of trading company, 13% of employees of manufacturing company and 7% of general public or in total 10% of total respondent says that weak administration is challenging problem in effective VAT implementation.

Most of the employees of manufacturing company claim that corrupted nature of the tax officer is the basic problem. On the other hand general public says that week and irresponsible administration is encouraged for under invoicing and smuggling. In brief, out of total respondent 18.75% identified smuggling and under valuation, 60% identified lack of proper billing, 7.5% identified lack of proper account, 10% identified weak

administration, and 3.75% of respondent has no any idea about problem of VAT implementation.

On the above table we come to the conclusion that most of the respondents view that all of them are the main problems of VAT in Nepal. But numerically, most of the respondents (i.e.60%) believe that lack of proper billing system is most challenging problem among them. For effective implementation of VAT, all problems should be resolved.

#### **4.6.11 Suggestions for Effective Implementation of VAT**

There is no doubt that VAT is major revenue source of national revenue. It has greatest contribution to national income of Nepal. Due to its unique character, it became more popular than other forms of taxation. It has no any economic distortion in economy.

In Nepal, contribution of income tax is very low because income level of Nepalese people is very poor and inequity. Like wise, revenue from custom duty is not satisfactory because of lowering. It is the cause of the liberalization and globalization effect on economy. Nepalese industrial development scenario is miserable. For this cause revenue from excise duty is also poor. In this context, broad- based VAT has great potential to mobilize required fund for nation development. Thus, there is no doubt that effective implementation of VAT should be our first motto. There may be so many suggestions for effective implementation of VAT. For this study simplification, major ten alternative possible suggestions are given to all respondents alternative.

In order to know the suggestion for effective implementation of VAT in Nepal, respondents were requested to rank their responses on the given choice a question "*Do you have any suggestions for effective implementation of VAT in Nepal?*" has been asked.

Summarized result of field survey is presented as below:

Table 4.21 shows that most of the respondents suggested that proper billing and account system, strictly market monitoring, lunching regular public awareness program, skilled and trained manpower are main instruments and public awareness for successful implementation of VAT in Nepal. Thus we can conclude that these suggestions are guidelines in our VAT reform journey.

**Table 4.23****Suggestions for Effective Implementation of VAT**

S.N.	Suggestions for effective implementation of VAT	No. of respondents	%	Rank
1	Skilled and trained manpower	8	10	5
2	Proper billing and account system	15	18.75	1
3	Taxpayer friendly tax administration	5	6.25	8
4	Strictly market monitoring	13	16.25	2
5	Clear VAT law and regulations	6	7.5	7
6	Lunching Regular public awareness programs	12	15	3
7	Punishment must be on the spot for tax evaders and corrupted VAT officers	9	11.25	4
8	Open Boarder should be monitored strictly	3	3.75	9
9	Expand audit and investigation activities	7	8.75	6
10	Encourage the use of cash machine	2	2.5	10

*Source: Opinion Survey, 2012*

**4.7 In Summary: Current Issues of VAT in Nepal**

- ) Lack of billing system: no billing, low billing, low billing in custom evaluation
- ) Problem in tax refund
- ) Some potential taxpayers are outside the tax net
- ) Lack of accurate book and account
- ) Mal practices
- ) Corruption
- ) Political instability
- ) Lack of cooperation between the government and private sector
- ) Low public consciousness
- ) Large amount of tax evasion
- ) Weak tax administration
- ) Smuggling, under valuation and unauthorized trade
- ) Lack of effective fine and penalties etc.

## 4.8 Major Findings of the Study

On the basis of previous chapter and data presentation and analysis some important findings can be drawn. The major findings are viewed below:

- a) A large amount of government revenue comes from taxation. More than 75% of government revenue comes from taxation whereas the contribution of non-tax revenue is less than 25% in Nepalese tax structure. The contribution of tax revenue was expected to increase after the implementation of VAT. But implementation of VAT did not increase the contribution of tax revenue on total revenue significantly.
- b) 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.
- c) More revenue can be generated through VAT by widening its coverage. The small traders which fall on the threshold limit could not have been brought into VAT net yet. They should be registered. The revenue can increase by discouraging tax evasion. There is wide range of practice of evading tax.
- d) Only few numbers of consumers have habit of taking bills on their purchases. Customers have no habit to take bill on their purchase. This implies that there is very low public awareness and consciousness level towards VAT. On the other hand, businessmen do not want to issue bills. The businessmen have the intension of 'malpractice' on VAT. So they don't provide bills to customers. This indicates the very need of supervision and rational auditing. The percentage of customers demanding bills on their purchase is very low. This might be the cause of ignorance and no habit of taking bills.
- e) 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. 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 day dream.

- f) 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 under way 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.
- g) 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 businesses do not feel liable to provide bills on their every sale to customers. The only motive not to provide bills is for tax evasion. It has been noticed that traditional Nepalese businessmen do not have the habit of maintaining their account.
- h) Tax evasion is very difficult if account is properly maintained. Some are illiterate and some desire to evade tax. Administrative in capability, under invoicing/unbilling and lack of public awareness towards VAT are main problem in the process of VAT implementation in Nepal.
- i) From the study, it is found that, there are lots of the traders; manufacturer and general public do not have any clear idea about VAT and its aspects. They have been facing many problems such as pricing problems, main training account problem and more over billing problem. Businessmen and traders are not encouraged by the government and tax administration.
- j) Non-registration of business is no problematic most businessmen above the threshold level have now registered. The implementation of problem of registration, collection, tax refund and miscellaneous.
- k) Through fourteen years have been already passed but record keeping and process of VAT system has still a great challenges and problems for taxpayer. Most of the tax payers are unknown about the record keeping and process of VAT system.
- l) Billing system is one of the major aspect of the effective implement of VAT but businessmen hardly issue bill to consumers, consumers are not much interested in

taking bills due to miss-concept of increase in the price of goods such practice has discouraged the consumers to demand VAT bill and is the root cause of the failure of the billing system.

- m) Most of the taxpayers are not conscious about VAT system. Taxpayers are still unknown about its threshold, exemption, zero rating and related issues, which is essential criteria for VAT registration.
- n) Smuggling business activities are increasing due to weak administration proper operation/ implementation. It is expected that VAT system help the government to control over these illegal activities.
- o) In the implementation of VAT in Nepal many problems arise which are as challenges in application of VAT. Narrow tax base, weak public conscious level, improved tax administration, political instability, geographical barriers, open boarder and unauthorized trade exist as problems in the implementation of VAT in Nepal etc.

## **CHAPTER- V**

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

This chapter is the important chapter for the research because this chapter is the extracts of all the previously discussed chapters. This chapter consists of mainly three parts: Summary, Conclusion and Recommendation. In summary part, revision or summary of all four chapters is made. In conclusion part, the result from the research is summed up and in recommendation part, suggestion and recommendation is made based on the result and experience of thesis. Recommendation is made for improving the present situation to the concerned parties as well as four further research.

#### **5.1 Summary**

VAT is the latest innovation in the field of taxation for 21<sup>st</sup> century. It was first implemented in 1954 by the French government. Then after more than 135 countries of the world are being attracted towards this system. In Nepal, VAT was seriously considered during the first half of 1990 and came into practice since 1997. Some studies held in that period concluded that VAT was applicable to Nepal but its effective implementation through efficient administration was identified as a serious challenge. Adequate preparation suggested for its success in future.

Implementing VAT in Nepal is not only an easy task but also a highly challenging job. The main obstacles for successful implementing of VAT are: type of business structure and their malpractice, unclear distributional channel, credit sales system, seasonal market. This aspect should be improved as the time of demand. Special problems came up due to the existence of small trades in large portion. As many of small traders cannot fully comply with the requirement of a VAT due to their low scale of operation, lack up accounting records, illiteracy and high compliance cost. A problem arises on small trades them with out no substitution revenue loss and extra burden on small traders. Fixing threshold limit to exempt the truly smaller traders is only the appropriate option of this problem.

The existence of open boarder and large number of unauthorized trade from India to Nepal poses a great threat to the success of VAT in Nepal. The illegal import from India and china would help to from a channel of unrecorded trade or black market channel resulting in a large-scale tax evasion. Because the tax administration is not strong enough to check or control the situation, the scope for illegal trade and tax evasion would not

decrease even after the adoption of a VAT. The implication of unrecorded trade is that the genuine traders would be adversely affected and illegal trade would ultimately repeal the legal trade.

Due to the lack of experts a skilled manpower in the VAT administration, the auditing system, which is one of the most importance part of VAT operation, is not effective. Refund system is not easy task, process oriented and delaying .So that, the businessman are getting trouble to get the refundable amount. A public consciousness level is very low. Businessmen are cheating consumers by charging high price to them in the name of VAT. They are also cheating government by not issuing proper bills in their sales and hence do not pay real VAT amount.

The geographical condition of the country and difficulties would create several problems for the effectiveness of VAT in Nepal. In the remote areas like Humla, Mugu, Dolpa etc. where the people most bear the burden of higher prices of commodities due to the following elements: A wage of porter and animal, Expensive flight rate of air cargo, time factor, food and other miscellaneous factor. In this condition, the applicability of VAT may be regressive. It adds additional burden to the remote area's people because miserable in equitable and unjustifiable. So the higher price level of commodities discourages completely the VAT.

Strong administration, educational, registration program, extensive training program, technical data base system, Co-ordination of various departments (i.e. IRD, CD, RID), High level VAT implementation team, co-operation between government and private Sector, etc are essential pre-requisites for success of VAT.

We cannot easily forecast the effects of VAT on various areas. In general considerations of various effects have been made extant by using some of the existing evidences. VAT would have a favorable impact on saving, investment and production activities of the country. VAT would also increase the competitiveness of Nepalese products. The business activities of country would get certain impact from the VAT business activities would get certain re-adjustment and business structure and practices would also change. The VAT would be helpful in promoting countries exports. But import would decline due to the raise in the prices of imported goods. VAT would have positive impact on the collection of income tax and import duties. Because VAT would disclose the trading records of businessmen making them more transparent, collection of income tax would certainly increase with VAT. The VAT would put the revenue at risk.

Tax liability would be distributed among more unsophisticated taxpayers like trader; there is more danger of revenue leakage.

One of the best features of VAT is its catch up effect, which makes tax evasion impossible. But this effect is difficult to achieve in practical ground because of existing channel of illegal trade and under valued transaction and lack of administrative capability to catch and destroy the illegal channel and regulate system fairly.

## **5.2 Conclusion**

It is clear that, the tax is most essential source of the government revenue. Tax can be classified as two categories; direct tax and Indirect tax. 3/4 portion of total is occupied by Indirect tax. VAT is a major source of national revenue. It covers almost 1/3 share of total revenue. Thus the conclusion is that the prospects of VAT entirely depend on its implementation aspect. VAT has bright prospect in Nepal only when it can be implemented in a successful way further, the successful featuring depends up on the strong, fair, capable, honesty, taxpayer friendly and efficient administration.

Trend of VAT collection is increasing from the past. Government also adopted VAT as a foundation of revenue. This fact is shown in 10th plan, budget speech and strategies of Inland Revenue department. Nepal adopted open and liberal economy. In liberal economy the rate of custom duty should be reduced. Contribution of custom duty in total revenue is gradually declining in recent years. Income level of Nepalese people is low, lack of industrialization. So, at present income tax can't contribute to national revenue because of above reason. High income rate discourage saving and investment. Contribution of excise duty is not sufficient because lack of industrialization. Besides this, VAT is broad-based tax system. It has many attributes that increase the potentiality of VAT in Nepal. Strong political commitment, co-operation between customs offices and revenue offices, Co-operation between private sector and the government bodies, systemization of the open brooder, high public consciousness level, transparency and improvement of rules and regulation accordingly overtime. Thus VAT can be entrenched as an integral part of the Nepalese tax structure in the long run if the issues mentioned above are taking seriously.

There is no doubt about suitability of VAT for nation building. At present, Consumer awareness is gradually increasing, no one an opposition of VAT, All business communities accepted, Administrative capacity is strengthen, computerization system is

applied are promote the implementation of VAT. Effective implementation of VAT helps other tax, Such as income tax, import duties. So many beauty aspect of VAT makes it popular. Thus, VAT has great potentialities for fulfillment of revenue scarcity.

### **5.3 Recommendations**

Based on the analysis and interpretation of data, following are the recommendations have been made for further improvement in VAT system in Nepal:

- ) Most of the people are unknown about VAT. VAT process and its effects on various aspects. They have developed kings of miss-concept regarding to VAT. Proper publicity for all related persons is the fundamental tool to success of VAT. Tax related information should be published regularly through journals, magazines, newspapers, pamphlets, program with professors, researchers, tax experts and economist should be conducted and published through advertisings Medias.
- ) Taxpayer should be provided better services with due regard and honor to them. Tax officials should behave with the taxpayers on equal footing. Many discretionary powers of the tax official should be limited making them rational.
- ) The administration should be very watchful to prevent any kinds of mal practice, fraud and tax evasion. Almost care should be taken to prevent any kind of bribing and corruption. Tax officials should effectively be monitored to control it.
- ) There is no fixed pricing system in the market to market, shop to shop and from day to day prices of some products are determined by bargaining. There is also a frequent price fluctuation. For proper implementation of VAT, there should be uniform price of the product in the market. Otherwise, the profit margins and value added of different sellers would upper different, which is very suspicious for tax persons.
- ) Not only the co-operation of government sector and private sector is sufficient there must be smooth co-operation and joint effort of both customs administration and the VAT administration also the customers.
- ) To increase registration, the registration program should be lunched as a campaign. Strong notices for the registration should be widely disseminated with strong warning of penalty for non-registration is found this should be severely

treated with greater publicity among other traders so that it may act as a deterrent to others.

- ) Simple accounting system should be applied as far as possible. Small traders may be supplied account books and purchases book free of cost if they demand. Tax rebate of certain percent of their tax liability may be allowed as compensation to the compliance cost of the taxpayers. Administrative procedure should be simplified. Computerization in administration system should be wide spread to all IROs.
- ) To increase the capability of administration, training of tax personnel should be kept on the top most priority. Training should be designed for various level and purpose. General training for all and specialized training for particular persons and foreign training should be designed and provided.
- ) Tax collection and payment activities should be made transparent. Rule and regulation should also be made simple and unambiguous. The limitation of discretionary power and transparency in tax rules and tax collection activities would reduce the change of malpractice.
- ) Simplification of forms and proper educate them to taxpayer. Probability of tax audit is established for all taxpayer. Message should be disseminate to all taxpayer about the possibilities of cross check for all transaction. Ethical code of conduct for tax officials should be develop and strong implemented it. Business community should be involved in policy making process.
- ) A policy of increasing the threshold and introduction of annual turnover tax for the non-registered taxpayer could be a viable option for structural reforms in VAT administration. The ever-changing nature and dynamics of service business is also the VAT administration could look into.
- ) The most challenging aspect of VAT is to address no-billing and under-billing conditions. For this, the custom administration should enforce the law to buy all the goods declared undervalued and simultaneously, the IRD should purchase under-invoiced goods. And no fraudulent taxpayer should be shielded from legal action.

- ) The tax administration and business community that were once at loggerheads over the introduction of VAT are now on the same boat. They need to continue working together for the effective implementation of the VAT regime.
- ) Procedural simplification through application of e-based system, scaling up investment for ICT sophistication, restructuring and reengineering of the organization, decentralization of service delivery, and centralization and specialization of audit and investigation are needed.

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## Appendix-1

### QUESTIONNAIRE

Full Name of Respondent: .....

Address: .....

Occupation: .....

Office/ organization: .....

Date: .....

Please you are requested to provide your opinion (tick any one) about VAT for the following questions:

1. From which media you know about VAT?

- |                     |                          |                   |                          |
|---------------------|--------------------------|-------------------|--------------------------|
| 1. Radio/F.M.       | <input type="checkbox"/> | 2. T.V.           | <input type="checkbox"/> |
| 3. Hording Board    | <input type="checkbox"/> | 4. Pamphlets      | <input type="checkbox"/> |
| 5. Daily Newspapers | <input type="checkbox"/> | 6. If other ..... |                          |

2. What do you think about the possibilities of good implementation of billing system in VAT administration in Nepal?

- |             |                          |                  |                          |
|-------------|--------------------------|------------------|--------------------------|
| 1. Possible | <input type="checkbox"/> | 2. Not possible  | <input type="checkbox"/> |
| 3. Costly   | <input type="checkbox"/> | 4. Impracticable | <input type="checkbox"/> |

3. In your opinion, what percentage of the total customers demanding the VAT bills?

- |                |                          |              |                          |
|----------------|--------------------------|--------------|--------------------------|
| 1. Around 10%  | <input type="checkbox"/> | 2. Up to 20% | <input type="checkbox"/> |
| 3. 20% to 60 % | <input type="checkbox"/> | 4. Above 60% | <input type="checkbox"/> |

4. May I know about your habit of taking bills on purchase?

- |                           |                          |                                  |                          |
|---------------------------|--------------------------|----------------------------------|--------------------------|
| 1. Yes, on every purchase | <input type="checkbox"/> | 2. Yes , on most of the purchase | <input type="checkbox"/> |
| 3. Yes, but not regular   | <input type="checkbox"/> | 4. No, I never get any VAT bills | <input type="checkbox"/> |

5. In your opinion, what are the major weaknesses of VAT implementation in Nepal?

1. Problem in billing system
2. Problem on tax refund
3. Weakness government economic policy
4. Lack of awareness in public
5. Lack of mutual understand between tax payer and tax administration
6. Lack of lunching enough special programme
7. Difficult account system
8. Lack of consciousness of tax payers
9. Administration Corruption
10. Costly system management

6. In your opinion, what are the areas of major problems in the process of VAT collection in Nepal?

- |                 |                          |                 |                          |
|-----------------|--------------------------|-----------------|--------------------------|
| 1. Registration | <input type="checkbox"/> | 2. Collection   | <input type="checkbox"/> |
| 3. Tax refund   | <input type="checkbox"/> | 4. I don't know | <input type="checkbox"/> |

7. In your opinion, are the existing legal provisions of VAT effective?

1. Sufficient and appropriate
2. Insufficient and need to improve
3. Complex and required simplifying
4. 4. I don't know

8. In your opinion, who are the most responsible for tax evasion?

- |                         |                          |                       |                          |
|-------------------------|--------------------------|-----------------------|--------------------------|
| 1. Business enterprises | <input type="checkbox"/> | 2. Tax administration | <input type="checkbox"/> |
| 2. Consumers            | <input type="checkbox"/> | 4. Auditors           | <input type="checkbox"/> |
| 3. All of them          | <input type="checkbox"/> |                       |                          |

9. In your opinion, which are the current issues of VAT implementation in Nepal?

- 1. Smuggling and under valuation
- 2. Lack of proper billing system
- 3. Lack of proper accounting system
- 4. Weak tax administration
- 5. I don't know

10. Do you have any suggestions for effective implementation of VAT in Nepal?

- 1. Skilled and trained manpower
- 2. Proper billing and account system
- 3. Taxpayer friendly tax administration
- 4. Strictly market monitoring
- 5. Clear VAT law and regulations
- 6. Launching regular public awareness programme
- 7. Open boarder should be monitored strictly
- 8. Expand audit and investigation
- 9. Encourage the use of cash machine

## Appendix-2

### List of Respondents

Serial	Name of Company	Address	Phone	No. of Respondent
<b>1. List of Respondents: Employees of Trading Companies</b>				<b>15</b>
1	Mini Hardware Concern	Teku, Ktm.	4261731	1
2	Hitco Pvt.Ltd	Balkhu, Ktm.	4288842	1
3	New Apurva Trading House	Teku, Ktm.	4248537	1
4	Kalash Trading House	Teku, Ktm.	4255774	1
5	Bhajuratna Engineering and Sales	Kantipath, Ktm.	4225490	1
6	Gaurav Traders	Kalimati Ktm.	4272191	1
7	Compro Computers Pvt. Ltd	Durbarg marg, Ktm.	4230712	1
8	Cas Trading House Pvt. Ltd.	Putalishadak, Ktm.	4440271	1
9	Arun International Traders	Thapathali, Ktm.	4226722	1
10	Avcon International (P.) Ltd.	Nagpokhari, Ktm.	44410394	1
11	Bishwas Traders	Putalishadak, Ktm.	4430905	1
12	Secure Technical Solution Pvt. Ltd.	Chabahil, Ktm.	2072221	1
13	Tape and Valves Industries	Tripureshwor, Ktm.	4261925	1
14	Shree Himalayan Enterprises	Thapathali, Ktm.	4226722	1
15	B.M. Enterprises	Tripureshwor, Ktm.	4261198	1
<b>2. List of Respondents: Employee of Manufacturing Companies</b>				<b>15</b>
1	Himalayan Distillery (P.) Ltd.	Pulchok, Lalitpur	419196	1
2	Mount Everest Brewery Pvt.Ltd.	Exhibition Road,	4225192	1
3	Bottlers Nepal Ltd.	Balaju Ind.dist.	4350227	1
4	Himalayan Brewery Ltd	Dilli Bazaar, Ktm.	4419196	1
5	Shree Distrillery (P) Ltd.	Chardunge, Naxal	4416330	1
6	Godawari Marble Industries (P.) Ltd.	Kamalpokhari, Ktm.	4422833	1
7	Varun Bverages(Nepal) Pvt.Ltd.	Sinamangal, Ktm.	4630783	1
8	Eastern Wax Match Industries	Gyaneshwer Ktm.		1
9	Arun Vanaspati Udyog Ltd.	Ganabahal, Ktm.	4250000	1
10	Himalayan Khadya Udyog Ltd.	Ganabahal, Ktm.	4250001	1

11	Nepal Polythene and Plastic Industries (Pvt.) Ltd.	Tripureshwor, Ktm.	43261749	1
12	Nepal Lever Limited	Heritage plaza-Ktm	4253351	1
13	Arati Soap and Chemical Industries Pvt. Ltd	Heritage Plaza II	4430997	1
14	Reliance Wire Industries	Durbarmarg, Ktm.	4425142	1
15	Nepal Tooth Products Pvt. Ltd	Thapathali, Ktm.	4230781	1

<b>3. List of Respondents: Tax Officers</b>				<b>20</b>
<b>Serial</b>	<b>Office</b>	<b>Address</b>	<b>Phone</b>	<b>No. of Respondents</b>
1	Inland Revenue Department	Lazimpat Kathmandu	4415802	5
2	Larg Taxpayers Office	Lalitpur	5010049	2
3	Area No.1 IRO , Babarmahal	Babarmahal, Kathmandu	4229872	2
4	Area No.2 IRO , Babarmahal	Babarmahal, Ktm.	4222608	2
5	Area No.3 IRO, Lazimpat	Lazimpat, ktm.	4428920	1
6	Lalitpur IRO, Harirarbhawan	Hariharbhawan Lalitpur	5010010	2
7	Department of Revenue Investigation ,	Hariharbhawan, Lalitpur,	5551802	2
8	Department Of Customs, Nepal	Tripureshwar,	4259793	2
9	Office of the Auditor General	BabarMahal, katm.	4262415	1
10	Revenue administration training centre	Hariharbhawan Lalitpur	5523170	1
<b>4. List of Respondents: General public</b>				<b>30</b>

**Table 2.1 : Government Expenditure & Sources of Finance**

Rs. in ten million

Particular	Fiscal Year											
	1974/75	1975/76	1976/77	1977/78	1978/79	1979/80	1980/81	1981/82	1982/83	1983/84	1984/85	1985/86
<b>Expenditure</b>	<b>151.37</b>	<b>191.33</b>	<b>233.04</b>	<b>267.49</b>	<b>302.05</b>	<b>347.07</b>	<b>409.23</b>	<b>536.13</b>	<b>697.92</b>	<b>743.73</b>	<b>839.48</b>	<b>979.71</b>
Regular	54.65	67.45	83.21	86.69	104.17	116.21	136.12	163.44	199.71	227.35	290.61	358.40
Development	96.72	123.88	149.83	180.60	197.88	230.86	273.11	372.69	498.21	516.38	548.87	621.31
<b>Receipts</b>	<b>129.12</b>	<b>147.53</b>	<b>171.55</b>	<b>204.86</b>	<b>241.11</b>	<b>268.56</b>	<b>328.81</b>	<b>367.28</b>	<b>393.17</b>	<b>428.59</b>	<b>484.00</b>	<b>581.74</b>
Revenue	100.84	111.56	132.29	158.20	181.19	188.00	241.92	267.95	284.16	340.93	391.66	464.45
Foreign Grants	28.28	35.97	39.26	46.66	59.92	80.56	86.89	99.33	109.01	87.66	92.34	117.29
<b>Overall Surplus (+) Deficit (-)</b>	<b>-22.25</b>	<b>-43.80</b>	<b>-61.49</b>	<b>-62.63</b>	<b>-60.94</b>	<b>-78.51</b>	<b>-80.42</b>	<b>-168.85</b>	<b>-304.75</b>	<b>-315.14</b>	<b>-355.48</b>	<b>-397.97</b>
Sources of Financing Deficits												
<b>Foreign Loan</b>	<b>10.40</b>	<b>14.59</b>	<b>16.43</b>	<b>38.18</b>	<b>39.02</b>	<b>53.49</b>	<b>69.33</b>	<b>72.99</b>	<b>98.58</b>	<b>167.09</b>	<b>175.49</b>	<b>250.11</b>
<b>Internal Loan</b>	<b>10.00</b>	<b>20.00</b>	<b>30.00</b>	<b>24.00</b>	<b>20.00</b>	<b>18.00</b>	<b>25.00</b>	<b>50.00</b>	<b>100.00</b>	<b>157.68</b>	<b>179.99</b>	<b>140.34</b>
(a) Banking System	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	107.68	129.99	90.34
(b) Non-Banking System	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	50.00	50.00	50.00
Cash Balance (-) Surplus	<b>1.85</b>	<b>9.21</b>	<b>15.06</b>	<b>0.45</b>	<b>1.92</b>	<b>7.02</b>	<b>-13.91</b>	<b>45.86</b>	<b>106.17</b>	<b>-9.63</b>		<b>7.52</b>

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Particular	Fiscal Year											
	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92	1992/93	1993/94	1994/95	1995/96	1996/97	1997/98
<b>Expenditure</b>	<b>1151.32</b>	<b>1410.50</b>	<b>1800.50</b>	<b>1966.93</b>	<b>2354.98</b>	<b>2641.82</b>	<b>3089.77</b>	<b>3359.74</b>	<b>3906.00</b>	<b>4654.24</b>	<b>5072.37</b>	<b>5611.83</b>
Regular	413.52	467.70	567.83	637.18	757.03	900.34	1148.41	1243.92	1926.51	2156.19	2418.11	2717.44
Development	737.80	942.80	1232.67	1299.75	1597.95	1651.28	1941.36	2113.32	1979.49	2498.05	2654.26	2904.39
<b>Receipts</b>	<b>726.02</b>	<b>942.72</b>	<b>945.75</b>	<b>1126.29</b>	<b>1289.47</b>	<b>1515.65</b>	<b>1894.17</b>	<b>2197.44</b>	<b>2851.23</b>	<b>3271.82</b>	<b>3535.18</b>	<b>3834.03</b>
Revenue	397.51	735.04	777.83	938.75	1072.98	1351.27	1514.84	1858.38	2457.52	2789.31	<b>3037.35</b>	<b>3293.79</b>
Foreign Grants	128.51	207.68	168.03	197.54	216.48	154.38	379.33	239.36	393.71	482.51	598.83	540.23
<b>Overall Surplus (+) Deficit (-)</b>	<b>-425.30</b>	<b>-467.78</b>	<b>-854.75</b>	<b>-840.64</b>	<b>-1065.51</b>	<b>-1126.17</b>	<b>-1195.60</b>	<b>-1162.30</b>	<b>-1054.77</b>	<b>-1382.42</b>	<b>1436.19</b>	<b>1777.78</b>
Sources of Financing Deficits												
<b>Foreign Loan</b>	<b>270.58</b>	<b>381.58</b>	<b>566.64</b>	<b>595.96</b>	<b>625.67</b>	<b>681.69</b>	<b>692.09</b>	<b>916.36</b>	<b>731.23</b>	<b>946.39</b>	<b>904.35</b>	<b>1105.43</b>
<b>Internal Loan</b>	<b>164.47</b>	<b>113.00</b>	<b>133.00</b>	<b>215.00</b>	<b>455.27</b>	<b>207.88</b>	<b>162.00</b>	<b>182.00</b>	<b>190.00</b>	<b>220.00</b>	<b>300</b>	<b>340</b>
(a) Banking System	111.63	75.77	132.00	145.00	371.32	117.88	52.00	100.00	130.00	75.00	<b>150</b>	<b>160</b>
(b) Non-Banking System	52.84	37.23	1.00	70.00	83.95	90.00	70.00	82.00	60.00	145.00	<b>150</b>	<b>180</b>
Cash Balance (+) Surplus	<b>-9.75</b>	<b>-26.80</b>	<b>153.11</b>	<b>29.68</b>	<b>-15.43</b>	<b>236.60</b>	<b>341.51</b>	<b>63.94</b>	<b>133.54</b>	<b>216.03</b>	<b>231.83</b>	<b>332.33</b>

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	Fiscal Year											
	1998/99	1999/00	2000/01	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10
<b>Expenditure</b>	<b>5957.90</b>	<b>6627.25</b>	<b>7983.51</b>	<b>8007.22</b>	<b>8400.61</b>	<b>8400.61</b>	<b>8944.26</b>	<b>10256.04</b>	<b>11088.92</b>	<b>13,360.46</b>	16,134.99	<b>21,966.19</b>
Recurrent Expenditure	3154.42	3557.91	4583.73	4836.39	5209.05	5209.05	5555.21	6163.54	5701.78	7712.24	9144.69	12773.89
Capital Expenditure	2299.21	2548.35	2830.72	2477.24	2295.61	2235.61	2309.56	2734.37	2967.66	3972.99	5351.61	7308.89
Principal Re-payment	404.27	521.27	569.06	643.49	955.95	955.95	1079.49	1353.09	1425.48	1675.23	1638.69	1823.41
<b>Receipts</b>	<b>4158.76</b>	<b>4860.35</b>	<b>5564.70</b>	<b>5713.16</b>	<b>6756.89</b>	<b>6756.89</b>	<b>7361.44</b>	<b>8451.39</b>	<b>8610.96</b>	<b>10351.29</b>	<b>12794.32</b>	<b>16985.73</b>
Revenue	3725.10	4289.38	4885.36	5044.55	5622.53	5622.93	6233.10	7012.27	7223.21	8771.21	10762.25	14547.45
Foreign Grants	433.66	571.15	675.34	668.61	1133.91	1133.91	1128.34	1439.12	1382.75	1580.28	2032.07	2638.28
<b>Overall Surplus (+) Deficit (-)</b>	<b>-1799.14</b>	<b>-1766.70</b>	<b>-2418.81</b>	<b>-2294.06</b>	<b>-1643.72</b>	<b>-1643.72</b>	<b>-1582.82</b>	<b>-1804.65</b>	<b>-2477.96</b>	<b>-3009.17</b>	<b>-3340.67</b>	<b>-4980.46</b>
Sources of Financing Deficits												
<b>Foreign Loan</b>	<b>1185.24</b>	<b>1181.22</b>	<b>1204.40</b>	<b>755.87</b>	<b>454.64</b>	<b>454.64</b>	<b>762.90</b>	<b>925.31</b>	<b>321.43</b>	<b>1035.35</b>	<b>897.59</b>	<b>956.89</b>
<b>Internal Loan</b>	<b>471.00</b>	<b>550.00</b>	<b>700.00</b>	<b>800.00</b>	<b>888.00</b>	<b>888.00</b>	<b>560.78</b>	<b>893.81</b>	<b>1183.42</b>	<b>1789.23</b>	<b>2049.64</b>	<b>1341.71</b>
Cash Balance (-) Surplus	<b>142.90</b>	<b>35.48</b>	<b>514.41</b>	<b>724.19</b>	<b>301.08</b>	<b>301.08</b>	<b>259.14</b>	<b>-15.77</b>	<b>473.11</b>	<b>214.59</b>	<b>393.04</b>	<b>2141.86</b>

Source : Financial Comptroller General Office.

Table 2.2: Tax Revenue

Rs. in ten million

Heading	Fiscal Year																							
	1974/75	1975/76	1976/77	1977/78	1978/79	1979/80	1980/81	1981/82	1982/83	1983/84	1984/85	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92	1992/93	1993/94	1994/95	1995/96	1996/97	1997/98
<b>Customs</b>	32.85	35.55	38.62	45.88	62.67	60.80	81.58	82.51	76.09	82.59	106.45	123.10	150.51	221.46	228.99	268.49	304.43	335.89	394.50	325.50	701.81	732.74	830.91	850.22
Imports	18.23	20.45	21.57	33.41	53.58	50.48	68.51	73.95	71.48	74.62	90.76	108.11	128.53	198.42	213.39	264.60	275.26	279.52	317.80	435.60	584.01	624.65	709.32	701.94
Exports	3.09	3.77	4.76	3.87	5.44	6.26	6.95	4.22	2.51	3.04	5.37	7.33	7.94	10.79	6.27	3.26	7.85	11.47	14.07	42.70	33.25	14.99	16.78	21.73
Indian Excise + Refund	10.77	11.20	11.74	8.54	3.60	3.95	5.81	4.04	2.00	4.90	10.00	7.56	13.83	12.12	9.16	0.00	21.17	44.74	62.55	46.04	83.75	89.99	100.91	110.20
Others	0.76	0.43	0.55	0.06	0.05	0.11	0.31	0.30	0.10	0.03	0.12	0.10	0.21	0.13	0.17	0.63	0.15	0.16	0.28	1.16	0.80	3.11	3.90	16.37
<b>Tax on Consumption and Product of Goods and Services</b>	32.87	31.67	41.82	47.89	39.70	66.70	86.67	100.63	121.51	136.93	152.70	176.63	209.79	232.80	266.59	316.39	376.34	492.15	568.13	726.12	879.26	968.47	1077.32	1124.97
Industrial Product	8.65	10.00	13.61	13.82	17.06	19.21	22.47	29.39	35.55	42.38	47.90	55.54	67.54	82.24	87.09	109.49	119.96	141.41	145.24	159.22	165.73	194.43	229.81	288.58
Liquor Contract	3.32	3.21	3.00	2.62	2.20	2.31	1.75	1.18	1.03	0.64	0.49	0.33	0.32	0.29	0.68	0.21	0.06	0.02	0.04	0.03	-	-	-	-
Sales Tax/Value Added Tax	19.05	16.19	22.20	27.31	35.68	40.12	53.77	59.74	70.93	77.07	84.58	98.59	114.38	130.05	137.97	165.01	202.61	284.07	343.82	469.31	603.17	643.15	712.65	712.26
Entertainment Tax	0.58	0.70	0.87	0.99	0.98	0.95	1.20	1.52	1.63	2.40	2.44	2.23	2.59	3.23	3.28	3.35	3.94	3.83	5.31	11.22	9.11	10.04	11.40	9.08
Hotel Tax	0.29	0.35	0.48	1.03	1.40	1.40	1.74	2.31	2.90	3.45	3.88	4.78	6.60	8.06	9.32	9.97	11.56	19.13	22.34	21.91	22.91	28.42	30.11	4.99
Air Flight Tax	0.23	0.27	0.48	0.83	0.71	0.86	2.05	2.19	2.27	2.54	2.69	2.49	4.48	6.54	6.70	8.77	17.34	17.79	20.57	27.07	27.82	31.11	31.42	34.33
Contract Tax	0.73	0.95	1.18	1.29	1.67	1.85	3.69	4.30	7.05	7.83	10.36	11.70	12.63	19.91	19.32	17.05	17.53	21.33	29.30	35.65	50.52	61.34	62.13	76.15
Road & Bridges Maintenance Tax & others	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.15	0.42	0.36	0.99	1.15	2.48	2.23	2.54	3.30	4.57	1.51	1.71	-	-	-	-
<b>Land Revenue and Registration</b>	12.69	13.44	14.06	14.11	11.03	12.12	17.83	17.00	17.13	21.24	21.86	24.43	28.40	36.09	40.10	43.17	53.87	63.61	75.49	83.32	93.77	106.66	101.54	100.42
Land Revenue	9.89	9.48	9.79	8.70	5.46	5.62	10.07	8.17	6.67	7.72	7.69	7.42	7.24	8.07	8.04	7.46	8.21	6.48	6.94	6.10	3.49	1.82	0.59	0.36
House and Land Registration	3.60	3.96	4.27	5.41	5.57	6.50	7.78	8.83	10.48	13.52	14.17	17.01	21.16	28.62	32.06	37.71	45.66	57.13	68.55	77.22	90.28	104.84	100.95	100.06
<b>Tax on Property, Profit &amp; Income</b>	3.70	9.90	15.31	16.51	14.28	14.26	17.47	20.99	27.86	32.94	34.11	41.75	48.47	64.33	93.04	98.34	82.97	95.91	128.13	202.23	291.16	358.93	432.46	518.37
Income Tax from Public Enterprises	4.7	8.72	13.33	3.46	2.7	3.81	4.1	3.74	5.34	6.37	9.31	11.08	12.09	19.32	21.69	24.09	16.22	17.11	25.52	53.41	86.02	114.43	123.11	131.78
Income Tax from Semi-Public Enterprises	0.00	0.00	0.00	0.67	0.52	0.76	0.08	0.03	0.15	0.22	0.14	0.18	0.12	0.19	0.26	0.24	0.27	0.53	0.26	0.21	-	-	-	-
Income Tax from Private Corporate Bodies	0.00	0.00	0.00	0.59	0.09	0.23	0.10	0.02	0.02	0.08	0.05	0.20	0.02	0.19	0.04	0	0.00	0.65	0.95	1.97	44.01	56.39	85.84	92.53
Income Tax from Individuals	0.00	0.00	0.00	8.50	6.14	5.57	9.14	14.37	17.59	21.23	19.60	23.45	28.43	34.86	59.74	62.5	53.12	61.79	80.07	118.48	129.31	147.01	171.14	212.08
Income Tax from Remunerations	0.00	0.00	0.00	0.46	0.85	0.76	0.98	0.81	1.10	1.17	1.63	1.53	3.09	3.34	4.38	5.07	4.99	5.47	5.67	8.38	11.84	13.31	16.81	32.22
Urban House and Land Tax	0.17	0.41	0.41	0.51	0.61	0.65	0.69	0.95	1.14	1.43	1.21	1.03	1.34	1.74	1.90	1.91	0.02	2.23	1.67	0.84	3.42	8.72	9.50	11.07
Vehicle Tax	0.19	0.12	0.12	0.23	0.26	0.19	0.18	0.24	1.10	1.62	1.52	1.81	2.28	2.83	3.10	3.19	2.39	4.54	6.33	4.14	3.40	7.07	10.62	17.49
Tax on Interest	0.00	0.00	0.00	0.01	0.11	0.01	1.32	0.57	1.11	0.79	0.64	1.02	0.97	1.71	1.83	1.31	3.78	1.93	7.34	9.67	11.16	11.98	15.44	21.22
Other Taxes	0.70	0.65	1.65	2.08	3.00	2.29	0.91	0.28	0.50	0.01	0	1.45	0.13	0.15	0.07	0.03	2.19	1.64	0.31	5.11	-	-	-	-
<b>Total</b>	<b>84.17</b>	<b>90.86</b>	<b>110.01</b>	<b>124.39</b>	<b>147.68</b>	<b>153.88</b>	<b>203.57</b>	<b>221.13</b>	<b>242.61</b>	<b>273.70</b>	<b>315.12</b>	<b>365.93</b>	<b>437.17</b>	<b>575.28</b>	<b>628.72</b>	<b>728.39</b>	<b>817.63</b>	<b>987.36</b>	<b>1166.25</b>	<b>1337.15</b>	<b>1966.00</b>	<b>2166.80</b>	<b>2442.43</b>	<b>2593.98</b>

Cont.

	Fiscal Year											First Five Months		
	1999/00	1999/00	2000/01	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2007/08	2008/09	2009/10
<b>Customs</b>	981.77	1081.33	1255.21	1355.00	1278.32	1555.48	1570.16	1534.40	1670.76	2105.23	2579.29	1403.39	1549.39	2168.09
Imports	769.83	895.39	1036.19	967.84	1039.19	1066.69	1226.91	1174.46	1269.61	1712.89	2205.66	1126.59	1277.40	1895.89
Exports	37.8	13.25	46.56	191.71	16.26	53.71	66.79	65.54	70.87	14.54	76.31	26.75	35.81	26.56
Traded Goods Refined	120.63	133.17	145.62	170.09	115.52	388.72	218.83	331.41	189.63	296.71	321.11	215.16	166.43	201.13
Others	23.54	7.92	21.14	36.71	44.23	47.81	51.53	65.94	47.63	49.14	72.86	34.93	43.57	44.59
<b>Tax on Consumption and Product of Goods and Services</b>	<b>1171.09</b>	<b>1338.73</b>	<b>1615.35</b>	<b>1607.43</b>	<b>1723.09</b>	<b>2070.56</b>	<b>2533.13</b>	<b>2611.83</b>	<b>3543.88</b>	<b>4100.53</b>	<b>5993.83</b>	<b>2413.23</b>	<b>3296.21</b>	<b>4678.74</b>
Duties on Industrial Products	295.23	312.76	377.13	390.79	277.13	622.67	644.59	690.76	534.23	1118.86	1622.09	646.20	932.13	1379.93
Value Added Tax	876.59	1025.97	1238.21	1226.73	1315.97	1447.89	1888.51	2131.07	2609.56	2981.57	3670.09	1772.03	2374.08	3370.81
Other Taxes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.33	0.00	0.00	14.31
<b>Land Revenue and Registration</b>	<b>100.32</b>	<b>101.89</b>	<b>61.29</b>	<b>113.15</b>	<b>60.78</b>	<b>169.73</b>	<b>179.92</b>	<b>218.11</b>	<b>225.33</b>	<b>291.07</b>	<b>522.33</b>	<b>131.81</b>	<b>272.27</b>	<b>318.03</b>
Land Revenue	0.14	0.46	0.51	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
House and Land Registration	100.18	101.43	60.78	113.15	60.78	169.73	179.92	218.11	225.33	291.07	522.33	131.81	272.27	318.03
<b>Tax on Property, Profit &amp; Income</b>	<b>651.29</b>	<b>793.56</b>	<b>954.63</b>	<b>946.57</b>	<b>1027.41</b>	<b>1021.51</b>	<b>1127.26</b>	<b>1178.70</b>	<b>1672.68</b>	<b>2014.70</b>	<b>2909.74</b>	<b>1133.43</b>	<b>1699.13</b>	<b>1943.19</b>
Income Tax from Public Enterprises	152.65	216.38	295.80	176.53	295.30	205.66	132.21	15.57	101.97	20.46	95.91	12.73	6.11	23.20
Income Tax from Semi Public Enterprises		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
Income Tax from Private Corporate Bodies	115.53	133.94	190.43	141.50	193.43	153.13	216.78	310.43	571.71	718.63	613.51	364.56	506.29	525.01
Income Tax from Individuals	277.27	201.94	220.03	441.91	236.22	252.24	292.63	422.47	523.44	638.12	587.73	235.01	572.91	540.03
Income Tax from Remunerations	39.65	45.15	56.73	33.56	38.73	136.12	167.59	170.41	200.79	245.10	219.56	142.84	101.04	252.03
Urban House and Land Tax	22.23	11.85	0.29	0.23	0.29	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
Vehicle Tax	21.94	39.31	42.66	53.97	12.96	70.06	80.51	84.76	96.50	106.92	135.00	87.72	125.31	175.01
Char on Interest	31.95	14.11	46.29	46.77	86.40	72.31	75.70	77.49	105.49	108.79	132.51	75.13	118.39	135.78
Other Taxes		0.00	0.00	0.00	16.53	26.84	30.37	36.57	36.78	176.56	210.56	110.14	115.31	131.03
<b>Total</b>	<b>2875.29</b>	<b>3313.21</b>	<b>3886.90</b>	<b>3933.06</b>	<b>4089.60</b>	<b>4617.30</b>	<b>5410.47</b>	<b>5743.04</b>	<b>7112.67</b>	<b>8515.53</b>	<b>11703.19</b>	<b>5089.88</b>	<b>6803.02</b>	<b>9308.03</b>

\*Provisional, Due to reclassification of the headings of account, amount of revenue of some tax headings do not match with previous data

Source : Financial Comptroller General Office

## Appendix-4

### 1. Computation of trade value of domestic product of VAT

#### Trend Value of Domestic Product of VAT

F/Y (2000/01 – 2009//10)

Year (t)	Domestic product	$x = t - 2004.5$	$x^2$	$xy$	$y_c = a + bx$
		2004.5			

Here, the trend line is

bx

Where,

y = Dependent variable

x = Derivation from

periods

b = Slope of trend line

And, a =

8611.976 and b =

1378.64

Then, we can  
value for each year by

amount in the formula. The value of y is computed in the table.

	(y)				
2000/01	4744.72	-4.5	20.25	-21351.2	8611.976 + 1378.646 x (-4.5) = 2408.069
2001/02	4608.37	-3.5	12.25	-16129.3	8611.976 + 1378.646 x (-3.5) = 3786.715
2002/03	4819.61	-2.5	6.25	-12049	8611.976 + 1378.646 x (-2.5) = 5165.361
2003/04	5604.12	-1.5	2.25	-8406.18	8611.976 + 1378.646 x (-1.5) = 6544.007
2004/05	6624.33	-0.5	0.25	-3312.17	8611.976 + 1378.646 x (-0.5) = 7922.653
2005/06	8057.43	0.5	0.25	4028.715	8611.976 + 1378.646 x 0.5 = 9301.299
2006/07	9689.98	1.5	2.25	14534.97	8611.976 + 1378.646 x 1.5 = 10679.95
2007/08	9264.71	2.5	6.25	23161.78	8611.976 + 1378.646 x 2.5 = 12058.59
2008/09	13918.49	3.5	12.25	48714.72	8611.976 + 1378.646 x 3.5 = 3437.24
2009/10	18788.00	4.5	20.25	84546	8611.976 + 1378.646 x 4.5 = 14815.88
	y =	x = 0	x <sup>2</sup>	xy =	
	86119.76		=82.5	113738.3	

supposed to be: yc = a +

source convenient time

and a = y-intercept

$$\frac{y}{n} \times \frac{86119.76}{10} =$$

$$\frac{xy}{x^2} \times \frac{113738.3}{82.5} =$$

easily compute the trend  
putting appropriate

### Estimated Trend Value of Domestic Product of VAT

F/Y(2010/11 – 2019/20)

Year (t)	$x = t - 2004.5$	$y_c = a + bx$
2010/11	5.5	$8611.976 + 1378.646 \times 5.5 = 16194.53$
2011/12	6.5	$8611.976 + 1378.646 \times 6.5 = 17573.18$
2012/13	7.5	$8611.976 + 1378.646 \times 7.5 = 18951.82$
2013/14	8.5	$8611.976 + 1378.646 \times 8.5 = 20330.47$
2014/15	9.5	$8611.976 + 1378.646 \times 9.5 = 21709.11$
2015/16	10.5	$8611.976 + 1378.646 \times 10.5 = 23087.76$
2016/17	11.5	$8611.976 + 1378.646 \times 11.5 = 24466.41$
2017/18	12.5	$8611.976 + 1378.646 \times 12.5 = 25845.05$
2018/19	13.5	$8611.976 + 1378.646 \times 13.5 = 27223.7$
2019/20	14.5	$8611.976 + 1378.646 \times 14.5 = 28602.34$

## 2. Computation of trade value of domestic product of VAT

### Trend Value of Import of VAT

F/Y(2000/01 – 2009//10)

Year (t)	Import (y)	$x = t - 2004.5$	$x^2$	xy	$y_c = a + bx$
2000/01	7303.04	-4.5	20.25	-32863.7	$14966.3 + 2433.649 \times (-4.5) = 4014.87$
2001/02	7339.58	-3.5	12.25	-25688.5	$14966.3 + 2433.649 \times (-3.5) = 6448.519$
2002/03	8629.51	-2.5	6.25	-21573.8	$14966.3 + 2433.649 \times (-2.5) = 8882.168$

2003/04	8874.77	-1.5	2.25	-13312.2	14966.3 + 2433.649 x (-1.5) = 11315.82
2004/05	12270.29	-0.5	0.25	-6135.15	14966.3 + 2433.649 x (-0.5) = 13749.47
2005/06	13888.58	0.5	0.25	6944.29	14966.3 + 2433.649 x 0.5 = 16183.11
2006/07	17014.20	1.5	2.25	25521.3	14966.3 + 2433.649 x 1.5 = 18616.76
2007/08	20438.5	2.5	6.25	51096.25	14966.3 + 2433.649 x 2.5 = 21050.41
2008/09	25782.43	3.5	12.25	90238.51	14966.3 + 2433.649 x 3.5 = 23484.06
2009/10	28122.00	4.5	20.25	126549	14966.3 + 2433.649 x 4.5 = 25917.71
	y 149662.9	x = 0	x <sup>2</sup> = 82.5	xy = 200776.1	

Here, the trend line is supposed to be:

$$yc = a + bx$$

Where,

y = Dependent variable

x = Derivation from source convenient time periods

b = Slope of trend line and a = y-intercept

$$\text{And } a = \frac{y}{n} \times \frac{149662.9}{10} = 14966.29 \text{ and } b = \frac{xy}{x^2} \times \frac{200776.1}{82.5} = 2433.649$$

Then, we can easily compute the trend value for each year by putting appropriate amount in the formula. The value of y is computed in the table.

### Estimated Trend Value of Import

F/Y (2009/10-2019/2020)

Year (t)	$x = t - 2002.5$	$y_c = a + bx$			
2010/11	5.5	14966.29	2433.649	5.5	28351.36
2011/12	6.5	14966.29	2433.649	6.5	30785.009
2012/13	7.5	14966.29	2433.649	7.5	33218.658
2013/14	8.5	14966.29	2433.649	8.5	35652.307
2014/15	9.5	14966.29	2433.649	9.5	38085.956
2015/16	10.5	14966.29	2433.649	10.5	40519.605
2016/17	11.5	14966.29	2433.649	11.5	42953.254
2017/18	12.5	14966.29	2433.649	12.5	45386.903
2018/19	13.5	14966.29	2433.649	13.5	47820.552
2019/20	14.5	14966.29	2433.649	14.5	50254.201

## Appendix-5

### Calculation of Correlation between VAT and Total Revenue

*Rs. in million*

F/Y	Total Revenue (x)	$dx = x - 50445.5$	$dx^2$	VAT (y)	$dy = y - 12267.3$	$dy^2$	$dx.dy.$
2000/01	48,893.90	-39,012.10	1,521,943,946.41	12,382.40	-11,979.58	143510336.98	467348572.92
2001/02	50,445.60	-37,460.40	1,403,281,568.16	12,267.30	-12,094.68	146281284.30	453071550.67
2002/03	56,229.70	-31,676.30	1,003,387,981.69	13,459.70	-10,902.28	118859709.20	345343891.96
2003/04	62,331.00	-25,575.00	654,080,625.00	14,478.90	-9,883.08	97675270.29	252759771.00
2004/05	70,122.70	-17,783.30	316,245,758.89	18,885.40	-5,476.58	29992928.50	97391665.11
2005/06	72,282.20	-15,623.80	244,103,126.44	21,613.00	-2,748.98	7556891.04	42949513.72
2006/07	87,712.10	-193.90	37,597.21	26,095.60	1,733.62	3005438.30	-336148.92
2007/08	107,622.50	19,716.50	388,740,372.25	29,815.70	5,453.72	29743061.84	107528270.38
2008/09	143,474.50	55,568.50	3,087,858,192.25	39,700.90	15,338.92	235282466.77	852360776.02
2009/10	179,945.80	92,039.80	8,471,324,784.04	54,920.90	30,558.92	933847591.57	2812636885.02
	$x = 879,060.00$	$dx = 0$	$dx^2 = 17,091,003,952.34$	$y = 243,619.80$	$dy = 0$	$dy^2 = 1745754978.78$	$dx dy = 5431054747.89$

This table provides us following necessary calculations to find out correlation coefficient between VAT and total revenue.

$$x = 879,060.00$$

$$dy = 0$$

$$N = 10 \text{ Years}$$

$$dx = 0 \qquad dy^2 = 1,745,754,978.78$$

$$dx^2 = 17,091,003,952.34 \qquad dx.dy = 5,431,054,747.89$$

$$y = 243,619.80$$

$$r = \frac{N \cdot dx \cdot dy \cdot Z}{\sqrt{N \cdot dx^2 \cdot Z} \cdot \sqrt{N \cdot dy^2 \cdot Z}}$$

$$= \frac{10 \cdot 5,431,054,747.89 \cdot 0}{\sqrt{10 \cdot 17,091,003,952.34 \cdot (0)^2} \cdot \sqrt{10 \cdot 1,745,754,978.78 \cdot (0)^2}}$$

$$= \frac{5,431,054,747.89}{413412.67 \cdot 132127.02}$$

$$r = 0.99$$

$$r^2 = 0.9801$$

$$P.E. = \frac{0.6745(1 - r^2)}{\sqrt{n}} = \frac{0.6745(1 - 0.9801)}{\sqrt{10}}$$

$$PEr = 0.0042 \text{ and } 6PEr = 0.0252$$

## Appendix –6

### Calculation of Correlation between VAT and Total Tax Revenue

*Rs. in million*

F/Y	Total Tax Revenue (x)	dx = x – 58181.45	dx <sup>2</sup>	VAT (y)	dy = y – 24361.98	dy <sup>2</sup>	dx.dy.
2000/01	38,865.10	-19,316.35	373,121,377.32	12,382.40	-11,979.58	143,510,336.98	231,401,760.13
2001/02	39,330.60	-18,850.85	355,354,545.72	12,267.30	-12,094.68	146,281,284.30	227,994,998.48
2002/03	42,586.90	-15,594.55	243,189,989.70	13,459.70	-10,902.28	118,859,709.20	170,016,150.57
2003/04	48,173.00	-10,008.45	100,169,071.40	14,478.90	-9,883.08	97,675,270.29	98,914,312.03
2004/05	54,104.70	-4,076.75	16,619,890.56	18,885.40	-5,476.58	29,992,928.50	22,326,647.52
2005/06	57,430.40	-751.05	564,076.10	21,613.00	-2,748.98	7,556,891.04	2,064,621.43
2006/07	71,126.70	12,945.25	167,579,497.56	26,095.60	1,733.62	3,005,438.30	22,442,144.31
2007/08	85,129.60	26,948.15	726,202,788.42	29,815.70	5,453.72	29,743,061.84	146,967,664.62
2008/09	68,080.20	9,898.75	97,985,251.56	39,700.90	15,338.92	235,282,466.77	151,836,134.35
2009/10	76,987.30	18,805.85	353,659,994.22	54,920.90	30,558.92	933,847,591.57	574,686,465.68
	x= 581,814.50	dx= 0	dx <sup>2</sup> = 2,434,446,482.59	y = 243,619.80	dy=0	dy <sup>2</sup> = 1,745,754,978.78	dx dy= 1,648,650,899.11

This table provides us following necessary calculations to find out correlation between VAT and total tax revenue:

$$y = 243,619.80$$

$$x = 581,814.50$$

$$dy = 0$$

$$dx = 0$$

$$dy^2 = 1,745,754,978.78$$

$$dx^2 = 2,434,446,482.59$$

$$dx \cdot dy = 1,648,650,899.11 \quad N = 10 \text{ years}$$

As we know,

$$\begin{aligned} r &= \frac{N \cdot dx \cdot dy \cdot Z \cdot dx \cdot dy}{\sqrt{N \cdot dx^2 \cdot Z(0)^2} \cdot \sqrt{N \cdot dy^2 \cdot Z(0)^2}} \\ &= \frac{10 \cdot |1,648,650,899.11 \cdot Z(0)|}{\sqrt{10 \cdot |2,434,446,482.59 \cdot Z(0)^2|} \cdot \sqrt{10 \cdot |1,745,754,978.78 \cdot Z(0)^2|}} \\ &= \frac{1,648,650,899.1}{156027.13 \cdot |132127.02|} \end{aligned}$$

$$r = 0.799 = 0.8$$

$$r^2 = 0.638$$

$$PEr = 0.6745 \times \frac{1 \cdot Z \cdot r^2}{\sqrt{n}} = 0.6745 \times \frac{1 \cdot Z \cdot 0.638}{\sqrt{10}} = 0.077 \text{ and } 6PEr = 0.463$$

## Appendix-7

### Calculation of Correlation between VAT and Total Indirect Tax

<i>Rs. in million</i>					
F/Y	Total Indirect tax (x)	dx = x – 50401.78	dx <sup>2</sup>	VAT (y)	dy = y – 24361.98
2000/01	28,705.70	-21,696.08	470,719,887.37	12,382.40	-11,979.58
2001/02	28,733.10	-21,668.68	469,531,692.94	12,267.30	-12,094.68
2002/03	32,481.20	-17,920.58	321,147,187.54	13,459.70	-10,902.28
2003/04	36,260.40	-14,141.38	199,978,628.30	14,478.90	-9,883.08
2004/05	41,839.30	-8,562.48	73,316,063.75	18,885.40	-5,476.58
2005/06	45,563.80	-4,837.98	23,406,050.48	21,613.00	-2,748.98
2006/07	52,146.40	1,744.62	3,043,698.94	26,095.60	1,733.62
2007/08	82,820.80	32,419.02	1,050,992,857.76	29,815.70	5,453.72
2008/09	64,648.13	14,246.35	202,958,488.32	39,700.90	15,338.92
2009/10	90,819.01	40,417.23	1,633,552,480.87	54,920.90	30,558.92
	x = 504,017.84	dx = 0	dx <sup>2</sup> = 4,448,647,036.28	y = 243,619.80	dy = 0

From the above calculation we find, the following necessary data to calculate Karl Pearson's correlation coefficient (r)

$$N = 10 \text{ Years} \qquad y = 243,619.80 \qquad dx \cdot dy = 2,550,773,151.43$$

$$x = 504,017.84 \qquad dy = 0 \qquad dx = 0$$

$$dy^2 = 1,745,754,978.78 \qquad dx^2 = 4,448,647,036.28$$

As we know,

$$r = \frac{N \cdot dx \cdot dy \sum dx \cdot dy}{\sqrt{N \cdot dx^2 \sum (dx)^2} \sqrt{N \cdot dy^2 \sum (dy)^2}}$$

$$= \frac{10 \mid 2,550,773,151.43 \sum 0 \mid 0}{\sqrt{10 \mid 4,448,647,036.28 \sum (0)^2} \sqrt{10 \mid 1,745,754,978.78 \sum (0)^2}}$$

$$= \frac{2,550,773,151.43}{210918.16 \mid 132127.02}$$

$$r = 0.915$$

$$r^2 = 0.837$$

Calculation of P.E.

$$\text{PEr} = 0.6745 \times \frac{1Zr^2}{\sqrt{N}} = \frac{1Z0.837}{\sqrt{10}} = 0.035 \text{ and } 6\text{PEr} = 6 \times 0.034 = 0.209$$

## Appendix-8

### Calculation of Correlation between VAT and Gross Domestic Product (GDP)

*Rs. in million*

F/Y	Total Indirect Tax (x)	dx = x – 641693.04	dx <sup>2</sup>	VAT (y)	dy = y – 24361.98
2000/01	413,428.70	-228,264.34	52,104,608,915.64	12,382.40	-11,979.58
2001/02	404,482.00	-237,211.04	56,269,077,497.88	12,267.30	-12,094.68
2002/03	468,920.00	-172,773.04	29,850,523,350.84	13,459.70	-10,902.28
2003/04	472,424.00	-169,269.04	28,652,007,902.52	14,478.90	-9,883.08
2004/05	504,101.00	-137,592.04	18,931,569,471.36	18,885.40	-5,476.58
2005/06	582,950.00	-58,743.04	3,450,744,748.44	21,613.00	-2,748.98
2006/07	670,588.70	28,895.66	834,959,166.84	26,095.60	1,733.62
2007/08	820,814.00	179,120.96	32,084,318,311.32	29,815.70	5,453.72
2008/09	960,012.00	318,318.96	101,326,960,295.48	39,700.90	15,338.92
2009/10	1,119,210.00	477,516.96	228,022,447,087.64	54,920.90	30,558.92
	x = 6,416,930.40	dx = 0	dx <sup>2</sup> = 551,527,216,747.96	y = 243,619.80	dy = 0

From the above calculation we find, the following necessary data to calculate Karl Pearson's correlation coefficient (r)

N = 10 Years

$$y = 243,619.80 \qquad dx \cdot dy = 30,577,080,619.61$$

$$x = 6,416,930.40 \qquad dy = 0$$

$$dx = 0 \qquad dy^2 = 1,745,754,978.78$$

$$dx^2 = 551,527,216,747.96$$

As we know,

$$r = \frac{N \cdot dx \cdot dy}{\sqrt{N \cdot dx^2} \cdot \sqrt{N \cdot dy^2}} = \frac{10 \cdot 30,577,080,619.61}{\sqrt{10 \cdot 551,527,216,747.96} \cdot \sqrt{10 \cdot 1,745,754,978.78}}$$

$$= \frac{30,577,080,6196.1}{2348461.66 \mid 132127.02}$$

$$r = 0.985$$

$$r^2 = 0.970$$

Calculation of P.E.

$$\mathbf{P.E = 0.6745 \times \frac{1 Z r^2}{\sqrt{N}} = \frac{1 Z 0.970}{\sqrt{10}} = P.E. = 0.0064 \text{ AND } 6PE = 6 \times 0.034 = 0.0384}$$