The Relation of Direct and Indirect Taxes on Government Revenue collection of Nepal

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ABSTRACT

The government revenue is the basic sources for economic development, social securities, national security, and etc. government of the country. Government has to collect revenue for the achievement of stipulated objectives. This research has been organized to understand the collection trend of total revenue, direct and indirect taxes of Nepal Government and it analyzes the correlation of direct and indirect taxes with total revenue. Trend graph, descriptive statistics and Pearson correlation have been deployed for analysis purpose. The 20 years data from 2003/004 to 2022/023 have been taken from economic survey of Nepal Government. The analysis has shown that, total revenue, direct and indirect taxes found in incremental trend. The total revenue and indirect tax has been found more fluctuating than direct tax. Taxes revenue have higher correlation with total revenue of Nepal. The higher correlation of taxes revenue with total tax revenue refers the Government of Nepal is unable to utilize alternative sources of revenue of Nepal. The Government of Nepal should raise their revenue from formulation of revenue collection policies from tax and nontax sector. On the other hand the government of Nepal should raise revenue from the policy of proper application of natural resources, increased in government investment, search alternative sources of government revenue, etc.

Keywords: Direct tax, indirect tax, total revenue, trend, correlation, resources

Introduction

Every government in the world have to collect funds from different sources for addressing ever growing demand of development needs of public, social securities, national securities, and etc. The needs and role of government for revenue generation are expressed by Boukbech et. al (2018) as the scarcity of resources and by the un-limitedness of needs, the supply of public goods requires a special focus on the mobilization of the different resources in order to implement a tax policy capable to generate the maximum financing. The importance of revenue to government is pointing out as higher revenue will enable the government to fund infrastructure and public services necessary to stimulate growth (Razzaque, et. al 2023). The government has tried to generate revenue from different sources; like royalty from natural resources, dividend from government investment, interest, income tax, custom tax, value added tax, excise duties. On average, higher income countries collect a higher share of GDP as taxes (Okunogbea & Santorob(2023). The budget deficit should recover from subsidy under bilateral treaty with foreign government and international organization and loan from internal, and foreign countries and international organizations. Among them taxes are the main source of government funds to finance essential services and to invest in public goods in the long run (Boukbech.,Bousselhami & Ezzahid,(2018).

The importance of taxes enumerated by Neog and Gaur (2020) as tax revenues are positively related with development, growth of the economy and trade openness. There has been found Nepal Government generate revenue by the means of value added tax 24.3,percent, excise duty, 13.9 percent, income tax 28.3 percent, custom duty 18.8 percent, nontax 10,7 percent, and other 5 percent of total revenue of 50877.0 ten millions in financial year 2022/023 (Economic survey, 2024). The Nepal Government has practice of loan and subsidy as additional sources to fulfill budget deficit.

Atkinson, (1977) defined taxes as those direct taxes those that may be adjusted to the individual characteristics

of the taxpayer and as those indirect taxes those that are levied on transactions irrespective of the circumstances of buyer or seller. Direct tax is that it is levied on income, profit, properties, gifts, expenditures of person and entity. The burden of it should not shift to other by the taxpayer which have levied it. Indirect tax is levied on transactions rather than the buyers' ability to pay. It is also known as consumption base tax. It is charged in each stage of dealing of goods and services. All these direct and indirect taxes are sources of government income. But both taxes are internal sources of government revenue. It is clear that, taxes are a tool of collecting money by authorized entities (Tuzimek, & Tuzimek, 2021). Taxes are the revenue source of government.

Review of Literature

Revenue: Government revenue is a major source of government expenditures. Every government in the world has race of enhancing their revenue because it is a major sources of government activities. Government revenue is more crucial in developing countries as they need a plethora of funds for developmental activities Bhoosal & Byanjankar, (2022). The statement agreed that, higher government revenue is base for economic development, social welfare, securities and defense of the country. The study of Bhoosal & Byanjankar (2022) concluded that, GDP per capita, import and exchange rate are the major factors of government of revenue of Nepal in the long run.

Direct tax: It is charged on income, profit, capital gain, gifts and etc. of taxpayer. Direct taxation helps build a more equitable society as the burden of direct tax is shouldered by the citizens and businesses based on their earned incomes ((Razzaque, et. al 2023). It is more equitable, because it has progressive nature. So the burden of tax payment should not shift to other who have levied it. It is a part of income, profit, gifts and etc. of the taxpayer it pinched to the taxpayer. But is taxpayer away from proper tax payment due to burden on persons and entities without direct benefits. Direct taxation is superior to indirect taxation in numerous ways (Razzaque, et. al 2023). They have rightly been pointing out as, it is more progressive in nature, helps to control over the economic inequality in country, helps to boost up the domestic resources application. The power of revenue generation of it has found robust than other sources. So the developed countries depend a lot on income tax in order to match to developing states (Easterly & Rebelo, 1993). However, it destroys the investment capacity of tax payer and less political interest due to lack of public support.

Indirect tax: It is also called consumption or expenditure tax which is charged as value added tax, custom, excise duties, service taxes, and etc. Indirect taxes should be considered relative to households' spending, rather than their income, not least because indirect taxes are generally levied on spending (Keep, 2024) and (Adhikari, 2007). The burden of tax is ultimately charged to the customers. But taxpayer has not knowledge of payment of tax, so it is convenient to taxpayer. The major weakness of this tax system: it has regressive nature because equal tax charged to all the people which may be boosting up income inequality in the country. But it is beneficial to control over the consumption of health hazard and luxuries goods through over charge taxes as VAT, Custom duties and excise duty. The feature and preferences of indirect tax was being posted out by Atkinson (1977) as supposedly taxpayers may show preference for indirect taxation on the grounds that it offers them choice and some politicians may have similar preferences because indirect taxes may be perceived by the public as being less visible. The tax has ability to increasing the economic growth of the country by creating investment opportunity. The main weakness of it is failure to maintain social harmony. The study of (Ogundana, 2017) has shown indirect tax has a positive and significant impact on economic growth related to direct tax which has a positive but insignificant impact on economic growth of Nigeria. The statement is supported by the study of Okunogbea & Santorob (2023) as the greatest component of taxes in Sub-Saharan Africa is consumption taxes (49%), which consist of sales tax, value added taxes (VAT) and excise taxes. In case of Nepal, Dangal (2021) has concluded that, the larger amount of tax was collected through VAT, customs duties, and excise duties.

The direct and indirect tax have played important role in economic development of a country. In case of developed countries direct tax had played vital role in economic development of the country because it is stable and reliable sources of government income. On the other hand indirect or consumption types taxes are more unstable, so it could not show strong position of economic stability and growth of the country. Direct and indirect taxes are the sources of revenue of the government but they have contrasting impact on economic dimension of macroeconomic of the country. The direct tax is means of reducing social inequality whereas indirect tax is promoting social inequality. In general, direct taxes tend to favor a more equal distribution of income, while indirect taxes tend to increase inequality. In general, there is an increase in inequality in developed countries, with a reduction in direct taxes and almost no change in indirect taxes (Fernandes, Vasconcelos, Cunha, Obst , 2020). The importance of taxes for a country is noting by (Fernandes et al.2020) if on the one hand, taxation can jeopardize work decisions and human and physical capital formation, on the other hand it seems to be a relevant instrument to prevent the economy form reaching levels of inequality in the distribution of income that undermine sustainable economic growth in the long run. The appropriate taxes policies of government should increase government revenue.

Hakim, (2019) has analyzed impact of direct and indirect tax on GDP and total tax revenue. In this research, researchers has been taken 51 countries panel data from 1992 to 2016 AD. The dynamic panel generalized method of moments (GMM) estimation were deployed for analysis of data. The analysis has shown direct and indirect taxes occupied more than 50 percent of total tax revenue of Nigeria. The results further cleared that, indirect tax has more role than direct tax on revenue generation with 32.89 percent and 27.56 percent respectively of the countries.

Ghimire (2019) has examined the contribution of tax to government revenue of Nepal. GDP, total revenue, direct and indirect tax are taken study variables. The researcher has taken 15 years panel data from 2002/003 to 2016/017. The statistical tools regression, correlation, time series etc. have been deployed for analysis purpose. The statistical analysis has shown GDP and government revenue both strongly depend on direct and indirect tax. The total revenue of Nepal is significantly influenced by tax income.

Dahal (2020) has organized a research work on role of value added tax on revenue of Nepal. The objectives of the study has been justified by the helps of statistical tool correlation and trend analysis. In this research, the researcher has analyzed 18 years panel data from 1999/2000 to 2016/017 data for analysis purpose. The study showed that, value added tax has significant contribution on revenue generation of Nepal. Value added tax has contributed about 27.33 percent to the total revenue and 30.40 percent to the tax revenue collection of Nepal in the study periods.

Ogundana et. al. (2017) have analyzed the impact of direct and indirect tax on GDP of Nigeria. They have taken panel data from 1994 to 2013 on the helps of graphical and ordinary least square method. The graphical solution showed direct tax, indirect tax and GDP are in increasing trend. The least square analysis has shown that indirect tax has a positive and significant impact on economic growth of Nigeria. The direct tax has found positive impact at insignificant pattern on economic growth of Nigeria.

 Bhoosal & Byanjankar (2022) have organized an empirical research on determinant of government revenue of Nepal. They are taken GDP per capita, imports, consumer price index, exchange rate, and foreign aid as independent variables. He has taken panel data from 1975 to 2021. They have used econometric and statistical tools for analysis purpose. They concluded as Government revenue is positively affected by GDP per capita and imports. The study showed that import is one of the principle sources of Nepal. The study is supported as customs duty contributes about 23 percent to the total tax revenue of Government of Nepal (MoF, 2022).

Boukbech, Bousselhami & Ezzahid,(2018) have studied with the objectives to explore the determinants of tax revenues in developing countries. For this purpose they have taken 29 developing countries data form 2001 to 2014. All the data were analyzed on the helps of Hausman test, correlation etc. They have concluded that, a positive and significant effect of per capita GDP and of the share of the value added of agriculture on tax revenues.

Keep (2024) has organized a research on tax statistics an overview of United Kingdom. He has taken dada since 1940 till 2021 and analyzed on the helps of trend analysis the base year was 1999. The study showed that, revenues of UK is in increasing trend however it was decreased in 2009 and 2010. According to the study major contributors of revenue of UK are income tax, NICs, VAT and corporation tax. The trend of other tax fuel duties and tobacco duties was in declining trend. However, other taxes stamp duty on property transactions, capital gains and council were in increasing trend. The study showed that major contributor of revenue was direct tax. The collection trend of VAT have been found more inconsistent than other tax.

Dangal and Gagurel (2019) have analyzed the trend and structure of direct tax on gross domestic product. They was adopted descriptive method of research on the helps of trend analysis and percentage. The data from 1999 to 2019/2020 were analyzed and concluded that, income tax, land tax, and vehicle tax were in increasing trend. However land tax was not increased as other direct tax. The direct tax has been found in increasing trend.

Statement of problems

 In developing countries, the state is challenged by the increasing needs of its citizens and by the limitedness of the resources. Indeed, taxes are the main source of funds to finance essential services and to invest in public goods in the long run (Boukbech, Bousselhami & Ezzahid, (2018). The government is the driver of development, social equality, defense, security and to guide future of the country. So government revenue is fundamental factor to fill up all these aspect of the country. Resource mobilization is very compelling factor the government to depend on foreign assistance heavily. Development expenditure depends almost entirely on foreign assistance heavily (Shrestha, 2000). The statement has raised the issue that government revenue is not sufficient to investment at development work. Taxation is raising government revenue, affecting consumption and production, and distribution of income (2017). Taxes have significant role to collection of government revenue of the country. Is there relationships of direct and indirect tax with government? Sufficient taxes is needed to government to attain the governmental objectives. What is the trend of direct and indirect taxes and total revenue collection of Nepal?

Objectives of the Study

The main objective of this study was to analyze the trend of Nepalese revenue, direct and indirect taxes. The specific objectives are;

1. To analyze the collection trend of direct, indirect taxes and total revenue of Nepal.
2. To show the present collection status of total revenue, direct tax and indirect tax of Nepal.
3. To identify the correlation of direct and indirect taxes with total revenue of Nepal Government.

Research Hypothesis

AviYonah and Margalioth (2007) have concluded that developing countries are focusing on direct or indirect tax for collection of tax. Direct and indirect taxes are the sources of government revenue.

H_0 There is a positive and significant relationship of direct and indirect taxes with revenue of Nepal Government.

Research Methodology

The descriptive and correlational research design have been applied to justify the research objectives. Statistical tool graph of trend, descriptive and correlation for analysis purpose. The graph of trend has been using for identification of collection trend of total revenue, direct and indirect taxes of Nepal. Similarly correlation has been adopted to understand the relation of direct and indirect taxes with total revenue of Nepal. The Government of Nepal has deployed, tax, nontax, grants and loan as government sources of revenue. In this research, tax and nontax revenue are taken government revenue. The grants and loan are not real income of the Government. Total revenue (TR), direct tax (DT) and indirect tax (INDT) are taken as studied variables.

Sample and Sources of Data: The data were collected from Economic Survey from 2005 to 2024 published by Nepal Government Ministry of Finance and publication of Inland Revenue Department of Nepal and the researcher articles from website etc. The panel data of twenty years were analyzed to cope with research objectives.
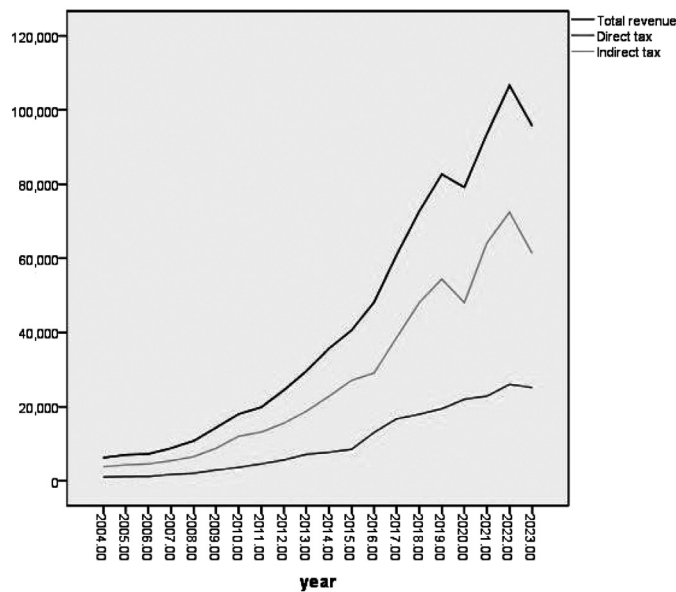
Data Presentation and Discussion

Firure:1 Trend of total revenue, indirect and direct tax

The Figure 1 has shown trend of total revenue, direct and indirect tax. The pattern of increased and decreased have found as similar of total revenue and indirect tax. In the financial year 2019/ 2020 and 2022/ 2023 both are decreased. But tax revenue is increased in slow motion on constant basis. The figure showed that total revenue of Nepal is highly influenced by indirect tax than direct tax. The tax collection gap of direct and indirect tax has been found in incremental trend. The trend analysis has proved that direct tax is more constant and reliable source of revenue collection to Government.

Table:1 Descriptive statistics

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation	Variance
Total revenue	20	6233.10	106634.65	43102.0z670	34184.05130	1168549363.221
Direct tax	20	1021.50	25999.48	10509.5215	8948.07954	80068127.523
Indirect tax	20	3795.80	72433.72	27946.6285	22705.09066	515521141.684

Source: Researcher's calculation

The Table 1 has shown significant variance in total revenue, direct tax and indirect tax of Nepal. That is also supported by maximum and minimum value of each variables. The remarkable standard deviation of each variables showed that there has been significant increase in total revenue, direct and indirect tax of Nepal.

Table:2 Analysis of Correlation

		Total revenue	Direct tax	Indirect tax
Total revenue	Pearson Correlation	1	*	
	Sig. (2-tailed)		.000	.000
	N	20	20	20
Direct tax	Pearson Correlation	.995**	1	
	Sig. (2-tailed)	.000		.000
	N	20	20	20
Indirect tax	Pearson Correlation	.998**	.988**	1
	Sig. (2-tailed)	.000	.000	
	N	20	20	20

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

Source: Researcher's Calculation

The table 2 has shown correlation between studied variables. The relation of total revenue with direct and indirect tax is very high. It means that, total revenue of Nepal is highly influenced by direct and indirect tax.

Discussion and Finding

The robust macroeconomic development of the country is excessively reliance on taxes revenue. Such revenue is collected by government on the helps of direct and indirect taxes. A tax policy of the country is governed by the process of tax collection. The trend analysis of total revenue, direct tax and indirect tax is based on 2003/04. The total revenue has increased year to year except 2018/2019 and 2022/023. The indirect tax has followed the trend of total revenue. But the direct tax has been found slowly increased than indirect tax and total revenue. The fluctuation trend of indirect tax has been found higher than direct tax. The analysis has shown total revenue of Nepal is highly influenced by indirect tax because the fluctuation of total revenue have same direction with total revenue. The study also supported to the study of Dangal (2021), Okunogbea and Tatorob (2023). But this study has not agreed with study of Keep (2024) because in developed country, direct tax have major role than indirect tax.

The incremental trend of total revenue has been found as of direct and indirect tax refers nontax revenues have found found weak position. Taxes have major role of revenue generation of Nepal. The study has supported to the study of Tuzimek, and Tuzimek,(2021). It refers that tax revenue of the country is going to positive path. There has been found some causes behind this; the settlement of ten years long insurgency in the country. On the other hand the settlement has created investment environment in country with new job opportunity. On the other hand, indirect tax has gone higher due to increase in income level of people and due to employee opportunity in the country and abroad. In this period Value Added Tax Act has matured and properly implemented. The incremental trend of total revenue lower than direct and indirect tax implies that the government has not properly utilized natural resources and other devices of nontax income.

The descriptive statistics analysis has shown higher standard deviation of indirect tax with variation. The correlation analysis has shown that total tax revenue have high correlation with indirect and direct tax. The correlation of indirect tax has found slightly higher than direct tax. It is also accepted that, indirect tax has increased role in total revenue generation of Nepal. The reason behind this are: consumption based market and lack of job opportunity and weak industrial and business position. The study has supported to the study of Bhoosal and Byanjankar (2022) and Dangal (2021). But it may reduce investment capacity of investor and foreign direct investment because higher tax may discourage to investors. So the investors prefer indirect tax because burden of tax should be shifted to customers or purchasers. The indirect tax depends on purchasing and consumption power of customers so that it is uncertain and like a punishment to poor people than rich people which ultimately creates economic gap in society. So that it is harmful to social welfare program of government. The analysis has shown that the government of Nepal has tried to increase the role of direct tax in economy in latter period.

Conclusion

The analysis of 20 years panel data from 2003/04 to 2022/023 of total revenue, direct tax and indirect tax has shown in increasing trend. The incremental trend of total revenue and indirect tax have increased faster than direct tax. The fluctuation in collection of total revenue and indirect tax have higher than direct tax. Direct tax is more stable, increased slow trend than indirect tax and total revenue. The graph trend has shown indirect tax

has higher influence in total revenue because they have similar pattern of increase and decrease trend of collection. The highest deviation has found in indirect tax with highest variation. But it proved that direct and indirect tax have highest correlation with total revenue. The indirect tax have higher correlation with total revenue. Tax revenue has significant role in revenue collection of Nepal. Indirect tax is unstable source of revenue because it is based on consumption. The collection of direct tax is based on income, profit, capital etc. so that needed to raise investment, create revenue and should increase in tax revenue. The higher correlation of tax revenue with total revenue, the government of Nepal should focus on nontax revenue like use of natural resources, increase in government investment, etc.

Limitation and Implication

This research is organized on the help of total government revenue, direct and indirect taxes of 20 years. The revenue capacity of the country is influenced by different factors like political system, development level, industrialization position, literacy rate, nontax revenue, geographical structure, population structure and rate of urbanization etc. It will be beneficial to economic policy maker of the country and researchers in this field.

REFERENCES

Adhikari, H.P.(2007) *Public Finance, Kathmandu*: Renuka kattel.

Atkinson, A. B. (1977). Optimal taxation and direct vesus indirect tax controversy. *The Canidian Journal of Economic, 10(4):* 590-606.

Avi-Yonah, R., & Margalioth, Y. (2007). Taxation in developing countries: Some recent support and challenges to the conventional view. *Virginia Tax Review, 27(1*): 1-21.

Bhoosal, Y. L. & Byanjankar, R. (2022). **An empirical study on the determinants of Government revenue in Nepal.** NRB Economic Review, 34(2): 30-49,

Dangal, D. N. (2021). Indirect tax: Trend and structure in Nepal. *Humanities and Social Sciences Journal,13 (1)*:13–20

Dangal, D. N. & Gajurel,R. P.(2019). Trends and structures of direct taxation and its share in gross domestic product of Nepal. *Economic Review of Nepal, 2(1*): 64-72.

Dahal, A. R. (2020). Role of Value Added Tax in Total Tax Revenue: An Empirical Study of Nepal. *Journal of Population and Development*: 1-12.

Eastrly, W. & Rebelow, S. T. (1993) Marginal income tax rate and economic growth in the developing countries. *European Economic Rewiew 37:* 409-417.

Fernandes, C. B. S., Vasconcelos, M. R., Cunha, M. S. da & Obst, T (2020). The impact of direct and indirect taxes on income inequality. https://www.academia.edu/10869270

Hakim, T. A. (2020). Direct versus indirect taxes: Impact on economic growth and total tax revenue. *International Journal of Financial Research, 11(2)*: 146-153. DOI: 10.21512/bbr.v8i3.3621

Ghimire, P. (2019). Role of tax towards government revenue of Nepal. *International Journal of Business and Economics Research,8(3):* 85-96 doi: 10.11648/j.ijber.20190803.12

Keep, M. (2024). Tax statistics: An overview. House of Common Library, https://commonslibrary.parliament.uk

Neog , Y., & Gaur, A. K. (2020). Macroeconomic determinants of tax revenue in India: An application of dynamic simultaneous equation model. *International Journal of Economic Policy in Emerging Economies, 13(1):* 13-35

Nepal government. (2004 to 2024). *Economic survey.* Ministry of Finance.

Okunogbea, O. & Santorob, F. (2023). Increasing tax collection in African Countries: The role of information technology. *Journal of African Economies, 32:* i57–i83, https://doi.org/10.1093/jae/ejac036

Ogundana, O. M ; Ogundana, O. M ; Ogundana, O. M ; Ibidunni, A. S; Adetoyinbo, A.(2017). Impact of direct and indirect tax on the Nigerian economic growth. *Business Review, 8(3):* 215-220 DOI: 10.21512/bbr.v8i3.3621

Razzaque, M. A., Rahman, T., Rabi, R. I., Islam, D. & Eusfu, A. (2023). *Using direct taxation to boost revenue and tackle inequality: A political economy analysis.* Working paper BGD-21181.

Shrestha, P. K (2000). Some aspect of indirect tax in Nepal. *Economic Review, 12:* 29-43. https://www.nrb.org.np/economic-review

Tuzimek, A. W & Tuzimek, W. (2021). The effect of indirect taxes on the state budget revenue. *Central European Review of Economics and Finance UROPEAN REVIEW OF ECONOMICS & Finance, 35 (4):* 29-41 DOI https://doi.org/10.24136/ceref.2021.015