



# Tax-to-GDP Contribution in Bangladesh: An Analytical Study

Shakhawat Hossain Sarkar

Professor

Department of Accounting and Information Systems

Jatiya Kabi Kazi Nazrul Islam University

Trishal, Mymensingh, Bangladesh

sarkar\_knu@yahoo.com

## Abstract

Government need financial resources to meet daily expenditure. Tax is one of the top-most contributing sources of public revenue in every country like Bangladesh. The study finds that Bangladesh's tax-to-GDP contribution is the lowest among SAARC countries, South Asian average, and lower-middle-income countries. This has been arrived at using secondary data sources collected from world development indicators. The contribution is far from high-income countries, OECD member countries, and the world average. It is worth mentioning here that the contribution is part of a rising trend in Bangladesh.. The study also identifies using primary data that corruption, administrative weakness, complex tax rules, lack of awareness, the scope of money laundering, cash transaction in business, etc., are the significant causes of the low tax-to-GDP contribution in Bangladesh. Some measures should be taken to increase the contribution, including reforming tax administration to reduce corruption, reducing the gap between tax officials and taxpayers, increasing tax officials' professionalism, reducing the frequency of tax rule changes, simplifying return submission procedures, etc.

**Keywords:** Tax-to-GDP contribution; comparative scenario of tax contribution; reasons for low tax contribution; ways to increase tax contribution.

## 1. Introduction

The government of a country broadly performs two categories of functions: obligatory and optional. The obligatory function includes defence, maintenance of law and order situation, etc. Optional functions include providing various facilities to its citizens, like infrastructure, health, education, environment, etc. It should be mentioned here that the standard of maintaining defiance, the law and order situation of a country, and the level of providing services to the citizen depend on different factors of the country, such as development level, nature of the economy, the natural condition of the country, population, etc. and global political environment, geographical conditions, etc. The government requires funds to ensure such facilities. Therefore, most countries depend on tax revenue to raise the necessary funds, except for some countries with a petroleum-rich economy.

On the other hand, fiscal policy differs from country to country depending on the country's level of development because developed countries prepare their fiscal policy to sustain, whereas developing countries want to be developed. Developed countries' sources of finance include tax and non-tax revenues, whereas developing countries' financing sources include tax revenues, non-tax revenues, foreign aid, and deficit finance. Direct and indirect taxes are two types of taxes based on their impact and incidence. Impact and incident are the same for direct tax, whereas impact and incident are different for indirect tax.

Tax revenue is the primary source of public revenue in Bangladesh because about 85 percent of public revenues come from it. However, the contribution of tax revenue to the GDP of Bangladesh is meagre compared to neighbouring countries, middle-income countries even lower-middle-income countries. It should be mentioned here that deficit finance was about 5 to 6 percent of GDP in the last two years. There are two types of adverse effects arising from deficit financing in an economy where the businesses suffer from loan insufficiency, and general public suffers from hidden taxes because it raises the buying capacity of the government and drops the purchasing power of the public in general (Sarkar, 2022b).

The study tried to find out the actual scenario of the contribution of tax revenue to the economic development of Bangladesh. The study finds the

appropriate tax policy so that the dependency on deficit financing and foreign aid will decrease, accelerating the country's economic growth.

## 2. Objectives of the Study

The main objective of the research is to find out the contribution of tax revenues to the economic development of Bangladesh. The following specific goals bring us to the point of achieving the main objective.

- i) To find out the contribution of tax revenues to the GDP of Bangladesh.
- ii) To compare the contribution of tax revenues to the GDP of Bangladesh with that of developing, developed, and SAARC countries.
- iii) To explore the causes behind the low contribution of tax revenues to the GDP of Bangladesh.
- iv) To find ways to increase the contribution of tax revenues to the GDP of Bangladesh.

## 3. Review of Literature

Available relevant and related articles on the internet were reviewed to find the research gap and formulate a research problem.

Taxation is one of the significant matters of financial literacy in the current scenario (Agarwal, 2021). Tax is an obligatory payment to the government with no expectation of direct benefits. The government imposes different taxes to meet its expenditure (Sarkar, Bhowmik, & Miah, 2019). As a source of government revenue, taxes dominate economic development (Basirat, Aboodi, & Ahangari, 2014). Economic development is the escalation of the national income or total amount of the output of goods and services in any country (Rahman & Sarkar, 2021). A country's economic development is typically indicated by an upsurge in the quality of its citizens' lives. (Emmanuel, 2022). Economic growth is an improvement in the productive capacity of the country measured yearly (Maganya, 2020). Tax is vital to fiscal policy for the states and their economy (Iriqat & Anabtawi, 2016). Taxes are levied on individuals, groups, businesses or corporate bodies to raise funds used by the state to maintain peace, security, economic growth and

development and to maintain social activities for the citizenry's benefit (Chigbu, Akujuobi, & Appah, 2012). However, most developing countries including Tanzania experiencing several economic problems in achieving sustainable economic progress and expansion through taxation (Maganya, 2020). The mean tax-to-GDP ratio of Bangladesh is the lowest among SAARC countries except for Afghanistan (Sarkar, 2022a); however, the growth level was stable in Bangladesh (Ahmed, 2019). Bangladesh has had one of the world's lowest tax-to-GDP ratios for a long time and one of the weakest among its neighboring countries and similar economies (Alam, Mohammad, & Hasan, 2017). A tax system is optimal if it generates adequate revenues to meet a country's public spending needs (Gupta, 2015). Efficient and equitable taxation inspires production, and the accumulation of national wealth stimulates saving and investments, leading to job creation (Fambon, 2006). Collecting tax revenues remains one of the most significant challenges for individual states, as public levies are the primary source of budget revenues (Jarczok-Guzy, 2017). Insufficient and unqualified tax officials, traditional and complex tax rules and procedures, limited time for paying taxes, improper tax slaps, and overall negative perceptions of taxpayers toward taxation systems are challenges for tax collection in Bangladesh (Islam, Islam, & Saha, 2021). There is a common phenomenon of avoiding or reducing the tax burden due to the negative effect of a direct tax on the purchasing power of the individual (Sarkar & Bhowmik, 2018). Each year, all over the world tax revenue is lost in billions as a result of multinational corporations' aggressive tax planning (Ahmed, 2021). Tax collectors feel that an insufficient number of tax officers, loopholes in tax legislation, and futile actions taken by tax officials to increase public consciousness of paying tax are the main challenges of tax collection in Bangladesh (Islam et al., 2021). Indirect taxes play a leading role in growing the collection of government revenues and, afterwards, the GDP in Bangladesh (Islam, 2016). The recent experience of developing countries indicates that taxation is a critical component of sustainable development (Yogo & Njib, 2018; Yogo & Njib, 2016). However, a well-structured tax system is the primary means of generating revenue for

providing the needed infrastructure and developing human resources (Nkem & Sunday, 2019). The core share (more than 80 percent) of public revenue comes from tax revenue in Bangladesh (Hosen, 2019). However, the overall budget deficit was 6.0 percent of GDP in FY 2020-2021, which was 5.0 percent in the preceding fiscal year in Bangladesh (GOB, 2020, p. 13). The government's requirement to finance the budget deficit by taking loans leads to transferring the tax burden from high-income people to low-income people as a hidden tax in the long term (Sarkar, 2022). After the above literature review, it was found that tax revenue is a matter of concern for the governments of countries worldwide, especially Bangladesh. However, the literature supports the idea that the tax-to-GDP scenario in Bangladesh is measurable. So the study tried to find out the scenario of the tax-to-GDP contribution of Bangladesh and also a comparative scenario of the tax-to-GDP contribution of Bangladesh. The study also tried to find out the reasons for the low tax contribution to the GDP of Bangladesh and how the contribution can be increased in a methodological way.

## 4. Methodology

The study is empirical research based on primary and secondary sources of data.

Secondary data were collected from the world development indicators of the World Bank. The data was used to analyze the tax-to-GDP contribution of Bangladesh. The data was also used to find a comparative scenario of the tax-to-GDP contribution of Bangladesh with that of SAARC countries and some groups of countries. It should be mentioned here that the data for Afghanistan from 2001 to 2005 and 2018, Bangladesh from 2017 to 2018, and the Maldives from 2010 to 2018 were unavailable in the source. Therefore, the researcher filled the data gap using trend values. However, statistical analyses were done using real data, i.e., filled-up data was not used to determine the statistical result. Pakistan was excluded from the analysis because data on Pakistan was unavailable in the source, i.e., the world development indicators of the World Bank.

The researcher also collected primary data from 417 individual Taxpayers' Identification Number (TIN) holders using a semi-structured questionnaire. Krejcie and Morgan's table was used to select the sample size. The table suggests a sample size of 384 for the large population of the finite population. It should be mentioned here that there were 46 lakh TIN holders in Bangladesh (Hossain, 2019), but the number of taxpayers was only 20-22 lakh (GOB, 2020, p. 12). So the population was considered to be 22 lakh. The questionnaire was developed in Google Forms. The Google Form link was sent to about 4,500 potential TIN holders from 15 June to 27 July 2021 from the researcher's personal Messenger, WhatsApp, and email with the request to provide opinions. In addition, my well-known person was requested to share the link with their nearest friend and colleague with a request to provide data. The responses included in the research database were received until 31 July 2021. Appendix I indicates that the sample includes 87.53 percent male and 12.47 percent female respondents. The highest responses were received from university teachers (51.08 percent), second from bankers (13.91 percent), third from government job holders (9.11 percent), fourth from private job holders (7.67 percent), and lowest from engineers (0.48 percent). However, 6.95 percent of college teachers, 1.20 percent of tax officials, 4.08 percent of university officers, 1.44 percent of doctors, etc. are in the sample. Respondents are employed all over the country, such as in Dhaka division (30.94 percent), Chattogram division (14.39 percent), Rajshahi division (10.97 percent), Khulna division (8.87 percent), Sylhet division (6.48 percent), Rangpur division (5.52 percent), Barishal division (4.32 percent), and Mymensingh division (18.70 percent). About half of the respondents are employed in divisional towns (46.76 percent), about one-third in district towns (30.70 percent), and the remaining (22.54 percent) are employed in upazila and other local areas of the country. More than two-thirds of the respondents have a Master's (67.63 percent), about one-fifth have a PhD (19.67 percent), 6.71 percent have M.Phil and the remaining 6.00 percent have a graduation degree. Two-fifths (40.05 percent) of the respondents are new taxpayers (paying taxes for up to 5 years), and

about one-third (28.78 percent) have been paying taxes for 6 to 10 years. The highest responses were received from the respondents whose age was 31 to 35 years, followed by the age group up to 30 years, and a few (0.96 percent) responses were received from the over-60-year-old.

Finally, the research used descriptive statistics to show the results.

## 5. Results and Discussion

The section is divided into three subsections. In the first part, the contribution of tax revenue to the GDP of Bangladesh and a comparative scenario are presented. Then, the reasons behind the low tax revenue contribution to the GDP of Bangladesh are presented in the second part. Finally, how to increase the tax revenue contribution to the GDP of Bangladesh is presented in the third part.

### 5.1. Comparative Contribution of Tax-to-GDP

Table I indicates that the mean tax to GDP ratio of Bangladesh was 7.91, with a SD 0.88 and a range of 2.79. There was an increasing trend during the study period. The tax-to-GDP ratio of Bangladesh from 2012 to 2018 was better (8.50 to 9.02 percent) than in the earlier years (6.61 to 6.97 percent from 2001 to 2003). Though there were fluctuating trends during the study period but from 2001 to 2010 the ratio was less than 8.00 percent and from 2011 the ratio exceeded 8.00 percent to 9.00 percent. However, the mean tax-to-GDP ratio of Bangladesh is the lowest among SAARC countries, far below the OECD, high income, and world averages. Even so, the ratio is lower than in South Asian countries and far below the lower-middle-income country average. The mean tax-to-GDP of Bangladesh (7.91) was about equal to Afghanistan (7.80) but mentionably lower than Bhutan (11.39), India (10.39), the Maldives (10.60), Nepal (13.32), and Sri Lanka (12.51).

**Table-I: Scenario of Tax-to-GDP**

	Afghanistan	Bangladesh	Bhutan	India	Maldives	Nepal	Sri Lanka	Lower middle income	High income	South Asia	OECD members	World
20 <sup>01</sup>	5.21	6.61	8.80	8.08	9.83	8.80	14.63	10.00	16.63	8.17	16.62	15.96
2002	5.48	6.69	9.54	8.68	9.51	8.56	14.02	10.44	15.54	8.69	15.52	14.96
2003	5.74	6.97	9.64	9.11	9.42	8.65	12.71	10.73	15.27	9.06	15.21	14.77
2004	6.01	7.05	7.91	9.57	10.49	8.97	13.47	11.11	15.28	9.50	15.26	14.85
2005	6.28	7.14	8.58	10.08	11.57	9.18	13.73	11.73	15.93	9.98	15.90	14.80
2006	6.97	7.04	9.27	11.13	11.76	8.78	14.58	12.93	16.36	10.90	16.33	15.26
2007	5.28	6.92	7.70	12.11	12.15	9.77	14.22	13.44	16.46	11.74	16.43	15.45
2008	6.09	7.66	8.63	10.98	11.58	10.44	13.28	13.10	15.99	10.77	15.80	15.00
2009	8.48	7.50	9.47	9.81	9.10	11.84	12.80	11.82	14.47	9.74	14.37	13.72
2010	9.17	7.83	13.46	10.39	8.25	13.40	11.30	12.04	14.68	10.26	14.75	13.97
2011	8.92	8.69	13.84	10.18	8.07	13.26	11.26	12.18	15.07	10.13	15.23	14.33
2012	7.71	9.02	15.05	10.84	7.88	13.86	10.41	12.38	15.28	10.71	15.42	14.44
2013	7.12	8.96	14.72	11.00	7.69	15.29	10.49	12.27	15.66	10.86	15.81	14.66
2014	6.88	8.64	13.70	9.98	7.51	15.90	10.14	11.69	15.81	9.92	15.97	14.66
2015	7.59	8.50	13.26	10.57	7.32	16.71	12.38	12.15	15.90	10.51	16.13	14.68
2016	9.50	8.77	12.98	11.15	7.13	18.69	12.20	12.30	15.84	11.07	16.08	14.59
2017	9.90	9.01	12.54	11.38	6.95	20.71	12.53	12.68	16.19	11.49	16.40	14.91
2018	9.74	9.40	16.02	11.97	6.76	21.66	11.92	13.22	15.66	12.06	15.81	14.58
Mean	7.80	7.91	11.39	10.39	10.60	13.32	12.51	12.01	15.67	10.31	15.73	14.79
SD	1.42	0.88	2.78	1.08	1.18	4.44	1.41	0.95	0.57	1.03	0.59	0.51
Range	4.62	2.79	8.32	4.03	3.05	13.10	4.49	3.44	2.15	3.89	2.25	2.23

Source: Database of World Development Indicators (Modified) Last Updated: 04/26/2021

## 5.2. Reasons behind Low Contribution

The mentionable reasons for the low tax-to-GDP contribution emanated from the analysis and interpretation of empirical results in Appendix 2. Most respondents believed that corruption was the prime cause; however, more than four-fifths of the respondents thought that administrative weakness in effective tax collection and VAT collection was also the top-most reason for low tax-to-GDP contribution.

More than four-fifths of the respondents believed that the scope of money laundering, widespread evasion by wealthy groups, and the provision of whitening black money were the reasons for the low tax-to-GDP contribution. However, about three-fourths of the respondents opined that the poor relationship between taxpayers and tax authorities; tax evasion due to a lack of technical expertise; lack of awareness of civic responsibility of tax obligations among the taxpayers; and tax laws are problematic even for individuals who learned about tax as the reasons.

More than seven-tenths of the respondents believe that complex tax laws, cash transactions in business, complex tax payment procedures, the inadequate number of trained and qualified accountants, and taxpayers' preference to evade tax at any cost over paying tax are the reasons for the low tax-to-GDP contribution.

About two-thirds of the respondents agreed that the large size of the informal or shadow economy and the majority of the population under the agricultural income group are the mentionable causes of low tax-to-GDP contributions.

About half of the respondents agreed that a large portion of the rural population, a narrow tax base, etc., are also causes of low tax contributions to GDP.

### 5.3. Ways to Increase the Contribution

It is indeed a hard job to identify ways to increase tax revenue. However, based on analytical results, a review of related literature, related issues addressed in print and electronic media, and formal and informal intellectual discussions of different groups of people on tax revenue, the researcher has identified a few measures to increase the tax-to-GDP contribution of Bangladesh. Therefore, some of the recommendations mentioned here will help increase the contribution of the tax-to-the GDP of Bangladesh.

Appendix 3 indicates that indirect measures are more effective than direct measures in increasing tax revenue contributions to the GDP of Bangladesh. A more important matter under indirect measures is related to tax officials and tax administration reform, such as ensuring an effective tax administration, increasing mutual trust and fairness between taxpayers and tax officials, and building tax offices as corruption-free institutions. Tax officials need to be more professional and improve the capacity of tax administration.

The respondents also emphasized some issues regarding tax laws, such as the communication of tax laws clearly to make them understandable to all, ensuring easy access to information on tax rules and procedures, and the fact that annual amendments should be aligned with the principles of legislation to avoid confusion and reduce the frequency of changes to tax laws.

Tax revenue contribution to GDP will increase by encouraging self-assessment by simplifying the return submission procedures; tax assessment and collection procedures must be straightforward, transparent, and client-friendly; enhancing the use of information technology; and enforcing tax laws strictly to reduce tax evasion. Many respondents suggested that the tax officials should be well-paid and well-motivated to increase tax revenue for the GDP of Bangladesh.

## 6. Conclusion

The contribution of tax revenue to the country's budget is an indicator of the financial capability of the government to provide services, except for some oil and resource-rich countries. Literature supports the

claim that the contribution of taxes to the GDP of Bangladesh is one of the lowest in the world. The research attempts to determine the level of tax revenue contribution and presents a comparative scenario of Bangladesh with SAARC countries and some country groups. The researcher also tried to unfold the reasons behind the low contribution of tax revenue to the GDP of Bangladesh and ways to increase the contribution. The tax-to-GDP contribution of Bangladesh is increasing, but till now, it has been the lowest among SAARC countries, the South Asian average, and lower-middle-income countries. The ratio of Bangladesh is far away from that of high-income countries, OECD member countries, and the world average. Corruption, administrative weakness, the scope of money laundering, widespread evasion, the provision of whitening black money, poor relationships between taxpayers and tax authorities, a lack of awareness of civic responsibility, complex tax laws, cash transactions in business, complex tax payment procedures, and an inadequate number of trained and qualified accountants are the prime reasons for the low tax contribution to the GDP in Bangladesh. Reform tax administration, reduce corruption, ensure easy access to tax information, reduce the frequency of tax law changes, simplify the tax return submission procedures, enforce tax laws strictly to reduce tax evasion, and pay tax officials well to increase tax revenue to the GDP of Bangladesh.

**Funding:** The article is part of a research project financed by Jatiya Kabi Kazi Nazrul Islam University, Trishal, Mymensingh, Bangladesh.

## References

- Agarwal, M. (2021). A Study on Tax Awareness in Public and Private Sector Organizations. *VISION: Journal of Indian Taxation*, 8 (2), 01-25.
- Ahmed, S. U. (2019). Taxation challenges for Bangladesh. *The Cost and Management*, 47(4), 13-21.
- Ahmed, S.U. (2021). New International Taxation Rules and Tax Avoidance by Multinational Corporations (MNCs). *The Cost and Management*, 49(1), 24-34.
- Alam, M. F., Mohammad, N., & Hasan, R. (2017). Tax performance in Bangladesh: a study in the context of post Vat era. *Proceedings of 7th Global Business Research Conference*, BIAM Foundation, Bangladesh.
- Basirat, M., Aboodi, F., & Ahangari, A. (2014). Analyzing the effect of

economic variables on total tax revenues in Iran. *Asian Economic and Financial Review*, 4(6), 755-767.

Chigbu, E. E., Akujuobi, L. E., & Appah, E. (2012). An empirical study on the causality between economic growth and taxation in Nigeria. *Current Research Journal of Economic Theory*, 4(2), 29-38.

Emmanuel, O.G. (2022). *Taxation for Economic Development*. OGE Business School, Diamond Prints & Design, Lagos, Nigeria. [https://www.researchgate.net/publication/357476816\\_TAXATION\\_FOR\\_ECONOMIC\\_DEVELOPMENT](https://www.researchgate.net/publication/357476816_TAXATION_FOR_ECONOMIC_DEVELOPMENT)

Fambon, S. (2006). *Taxation in Developing Countries*. Research Paper No. 2006/02, World Institute for Development Economics Research, United Nations University.

GOB (2020). *Budget Speech 2020-2021*. Ministry of Finance, Government of the People's Republic of Bangladesh, Dhaka.

Gupta, P. (2015). *Generating larger tax revenue in South Asia*. The World Bank, Online at <https://mpr.ub.uni-muenchen.de/61443/> MPRA Paper No. 61443, posted 19 Jan 2015 21:18 UTC

Hosen, A. (2019). GDP growth and indirect taxation in Bangladesh: related issues, consequences and expectation. *International Journal of Business and Economics Research*, 8(5), 286-296. doi: 10.11648/j.ijber.20190805.15

Iriqat, R. A. M., & Anabtawi, A. N. H. (2016). GDP and tax revenues-causality relationship in developing countries: evidence from Palestine. *International Journal of Economics and Finance*, 8(4), 54-62. doi:10.5539/ijef.v8n4p54

Islam, M. R. (2016). Contribution of indirect taxes on GDP of Bangladesh. *Asia Pacific Journal of Research*, 1(38), 213-219.

Islam, M. S. Islam, M. N., & Saha, N. K. (2021). Challenges of tax assessment and collection procedures in Bangladesh. *The Cost and Management*, 49(6), 4-12.

Jarczok-Guzy, M. (2017). The principles of tax law equality in the context of direct taxation. *Journal of Economics and Management*, 30(4), 70-84. DOI: 10.22367/jem.2017.30.04

Maganya, M.H. (2020). Tax revenue and economic growth in developing country: an autoregressive distribution lags approach. *Central European Economic Journal*, 7(54), 205-217. DOI: 10.2478/ceej-2020-0018

Nkem, U. H., & Sunday, A. A. (2019). Effect of Taxation on Domestic Investment in Nigeria. *International Journal of Economics, Business and Management Studies*, 6(1), 96-104.

Rahman, Z. & Sarkar, S. H. (2021). Role of value added tax (VAT) on the economic growth of Bangladesh. *IOSR Journal of Business and Management*, 23(2), 12-27. DOI: 10.9790/487X-2302071227

Sarkar, S. H. & Bhowmik, S. C. (2018). Income Tax Awareness of Individual Assessee in Bangladesh. *The Bangladesh Accountant*, July-September, 57-66.

Sarkar, S. H. (2022a). Reasons behind Low Tax Revenue Contribution to the GDP of Bangladesh. *The Cost and Management*, 50(2), 27-33.

Sarkar, S. H. (2022b). Effects of income tax reform on assessee and government revenue in Bangladesh. *Emperor International Journal of Finance and Management Research*, 8(2), 35-46.

Sarkar, S. H., Bhowmik, S. C., & Miah, M. H. A. (2019). Individual income tax planning practices in Bangladesh: An empirical study. *Global Journal of Management and Business Research: D Accounting and Auditing*, 19(3), 68-76.

Yogo, U. T., & Njib, M. M. N. (2016). Political competition and tax revenues in developing countries. *WIDER Working Paper 2016/116*, World Institute for Development Economics Research, United Nations University.

Yogo, U. T., & Njib, M. M. N. (2018). Political competition and tax revenues in developing countries. *Journal of International Development*, 30, 302-322. DOI: 10.1002/jid.3349

## Appendices

### Appendix-I: Demographical Characteristics of the Respondents

Occupations	Sample Size	Per cent	Division	Sample Size	Per cent
University Teacher	213	51.0791	Dhaka	129	30.9353
College Teacher	29	6.95444	Chattogram	60	14.3885
Tax Official	5	1.19904	Rajshahi	45	10.7914
Officer at University	17	4.07674	Khulna	37	8.8729
Banker	58	13.9089	Sylhet	27	6.47482
Doctor	6	1.43885	Rangpur	23	5.51559
Engineer	2	0.47962	Barishal	18	4.31655
Government Job	38	9.11271	Mymensingh	78	18.705
Private Job	32	7.67386	<b>Total</b>	<b>417</b>	<b>100</b>

NGO	4	0.95923
Businessmen	5	1.19904
Other	8	1.91847
<b>Total</b>	<b>417</b>	<b>100</b>

Gender	Sample Size	Per cent
Male	365	87.53
Female	52	12.47
<b>Total</b>	<b>417</b>	<b>100</b>

Length of Paying Tax (in Year)	Sample Size	Per cent
Up to 5	167	40.048
6 – 10	120	28.777
11 – 15	76	18.2254
16 – 20	28	6.71463
21 – 25	17	4.07674
More than 26	9	2.15827
<b>Total</b>	<b>417</b>	<b>100</b>

Employment Location	Sample Size	Per cent
Divisional Town	195	46.7626
District Town	128	30.6954
Other	94	22.542
<b>Total</b>	<b>417</b>	<b>100</b>

Education Level	Sample Size	Percent
PhD	82	19.6643
M. Phil	28	6.71463
Masters'	282	67.6259
Graduate	25	5.9952
<b>Total</b>	<b>417</b>	<b>100</b>

Age (in Group and Year)	Sample Size	Per cent
Up to 30	65	15.5875
31 to 35	114	27.3381
36 to 40	81	19.4245
41 to 45	82	19.6643
46 to 50	27	6.47482
51 to 55	32	7.67386
65 to 60	12	2.8777
More than 60	4	0.95923
<b>Total</b>	<b>417</b>	<b>100</b>

#### Appendix-2: Reasons behind Low Contribution

S/N	Causes of Low Tax Contribution to GDP	Strongly disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly agree	Mean	Median	Mode	% $\geq 3$
1	Low literacy rate	26 (6.2)	73 (17.5)	152 (36.5)	100 (24.0)	66 (15.8)	3.26	3	3	39.8
2	A large number of the rural population	25 (6.0)	64 (15.3)	100 (24.0)	143 (34.3)	85 (20.4)	3.48	4	4	54.7
3	Lack of awareness on civic responsibility of tax obligations among the taxpayers	7 (1.7)	28 (6.7)	65 (15.6)	129 (30.9)	188 (45.1)	4.11	4	5	76.0
4	The majority of the population are under the agricultural income group (historically, agricultural income is an under-taxed sector)	17 (4.1)	60 (14.4)	85 (20.4)	151 (36.2)	104 (24.9)	3.64	4	4	61.1
5	The large size of the informal economy or shadow economy	4 (1.0)	32 (7.7)	114 (27.3)	171 (41.0)	96 (23.0)	3.77	4	4	64.0
6	Narrow tax base	19 (4.6)	78 (18.7)	117 (28.1)	143 (34.3)	60 (14.4)	3.35	3	4	48.7
7	Tax laws are complex to understand for the taxpayers	15 (3.6)	36 (8.6)	64 (15.3)	136 (32.6)	166 (39.8)	3.96	4	5	72.4
8	In some cases, tax laws are problematic even for the individuals learned on tax	11 (2.6)	20 (4.8)	71 (17.0)	154 (36.9)	161 (38.6)	4.04	4	5	75.5
9	Frequent changes in tax laws	21 (5.0)	62 (14.9)	132 (31.7)	124 (29.7)	78 (18.7)	3.42	3	3	48.4
10	Complex tax payment procedures	16 (3.8)	39 (9.4)	65 (15.6)	139 (33.3)	158 (37.9)	3.92	4	5	71.2
11	Administrative weakness on effective tax collection	8 (1.9)	16 (3.8)	47 (11.3)	121 (29.0)	225 (54.0)	4.29	5	5	83.0
12	Administrative weakness in the prevention of VAT evasion	4 (1.0)	9 (2.2)	64 (15.3)	151 (36.2)	189 (45.3)	4.23	4	5	81.5

13	A large volume of tax evasion due to a lack of technical expertise	5 (1.2)	17 (4.1)	77 (18.5)	183 (43.9)	135 (32.4)	4.02	4	4	76.3
14	Inadequate number of trained and qualified accountants in tax administration	8 (1.9)	27 (6.5)	87 (20.9)	157 (37.6)	138 (33.1)	3.93	4	4	70.7
15	Cash transactions in business lead to tax evasion	5 (1.2)	14 (3.4)	99 (23.7)	180 (43.2)	119 (28.6)	3.94	4	4	71.8
16	Widespread evasion reduces the tax contributions from the rich group	5 (1.2)	11 (2.6)	68 (16.3)	147 (35.3)	186 (44.6)	4.19	4	5	79.9
17	Poor relationship between taxpayers and tax authorities	11 (2.6)	24 (5.8)	59 (14.1)	119 (28.5)	204 (48.9)	4.15	4	5	77.4
18	Taxpayers prefer to evade tax at any cost than to pay taxes	6 (1.4)	30 (7.2)	88 (21.1)	145 (34.8)	148 (35.5)	3.96	4	5	70.3
19	The administrative cost of tax collection is high	25 (6.0)	56 (13.4)	147 (35.3)	119 (28.5)	70 (16.8)	3.37	3	3	45.3
20	Corruption	3 (0.7)	4 (1.0)	31 (7.4)	76 (18.2)	303 (72.7)	4.61	5	5	90.9
21	Scope for money laundering	3 (0.7)	13 (3.1)	63 (15.1)	132 (31.7)	206 (49.4)	4.26	4	5	81.1
22	Provision of whitening black money	13 (3.1)	20 (4.8)	56 (13.4)	141 (33.8)	187 (44.8)	4.12	4	5	78.6

Source: Author's Analysis of Primary Data.

### Appendix-3: Ways to Increase the Contribution of Tax Revenue to GDP

S/N	How to Increase Tax Contribution to GDP	Strongly disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly agree	Mean	Median	Mode	% $\bar{x}$
1	Increase awareness on civic responsibility of tax obligation among the taxpayers	2 (.50)	8 (1.9)	46 (11.0)	124 (29.7)	237 (56.8)	4.41	5	5	86.5
2	Continuous dialogue between the government and citizens on taxation	4 (1.0)	13 (3.1)	58 (13.9)	146 (35.0)	196 (47.0)	4.24	4	5	82.0
3	Government should bring a larger population under the tax net by broadening the tax base	9 (2.2)	24 (5.8)	70 (16.8)	153 (36.7)	161 (38.6)	4.04	4	5	75.3
4	Increase the tax base to cover the informal sector	13 (3.1)	23 (5.5)	87 (20.9)	168 (40.3)	126 (30.2)	3.89	4	4	70.5
5	Increase the tax base by rationalizing exemptions	12 (2.9)	20 (4.8)	106 (25.4)	152 (36.5)	127 (30.5)	3.87	4	4	67.0
6	VAT should be the main source	26 (6.2)	62 (14.9)	106 (25.4)	127 (30.5)	96 (23.0)	3.49	4	4	53.5
7	Taxing more on companies	12 (2.9)	38 (9.1)	98 (23.5)	137 (32.9)	132 (31.7)	3.81	4	4	64.6
8	Extend the scope of property taxes	15 (3.6)	44 (10.6)	99 (23.7)	151 (36.2)	108 (25.9)	3.70	4	4	62.1
9	Tax systems need to be designed to cover the small formal sector	10 (2.4)	39 (9.4)	88 (21.1)	159 (38.1)	121 (29.0)	3.82	4	4	67.1
10	Ensure enormous tax collection through advanced tax	16 (3.8)	36 (8.6)	115 (27.6)	141 (33.8)	109 (26.1)	3.70	4	4	59.9
11	Ensure huge tax collection through tax deducted at source	15 (3.6)	22 (5.3)	101 (24.2)	131 (31.4)	148 (35.5)	3.90	4	5	66.9
12	Ensure recovery of the whole amount of VAT collected by the business concern	3 (.7)	26 (6.2)	78 (18.7)	145 (34.8)	165 (39.6)	4.06	4	5	74.4
13	Providing incentives (e.g. prioritised public services, such as education for children, healthcare in public hospitals, etc.) to become taxpayers	6 (1.4)	24 (5.8)	65 (15.6)	123 (29.5)	199 (47.7)	4.16	4	5	77.2
14	Tax defaulters must be prosecuted	2 (.5)	16 (3.8)	58 (13.9)	122 (29.3)	219 (52.5)	4.30	5	5	81.8

15	Implementation of cash register system where possible	4 (1.0)	17 (4.1)	60 (14.4)	150 (36.0)	186 (44.6)	4.19	4	5	80.6
16	Ensure as many transactions as possible through the banking channel	3 (.7)	5 (1.2)	48 (11.5)	119 (28.5)	242 (58.0)	4.42	5	5	86.5
17	All kinds of transactions involving tax should be linked automatically to individual TIN (or the like) at the NBR database online	6 (1.4)	6 (1.4)	44 (10.6)	99 (23.7)	262 (62.8)	4.45	5	5	86.5
18	Communicate tax laws clearly to make those understandable to all	3 (.7)	4 (1.0)	46 (11.0)	134 (32.1)	230 (55.2)	4.40	5	5	87.3
19	The annual amendments should be aligned with the principal legislation to avoid confusion	2 (.5)	11 (2.6)	76 (18.2)	173 (41.5)	155 (37.2)	4.12	4	4	78.9
20	Ensure easy access to information on tax rules and procedures	2 (.5)	8 (1.9)	44 (10.6)	129 (30.9)	234 (56.1)	4.40	5	5	87.0
21	Reduce the frequency of changes of tax laws	5 (1.2)	15 (3.6)	69 (16.5)	139 (33.3)	189 (45.3)	4.18	4	5	78.6
22	Tax assessment and collection procedures must be straightforward, transparent and client-friendly	2 (.5)	8 (1.9)	46 (11.0)	74 (17.7)	287 (68.8)	4.53	5	5	86.5
23	Encouraging self-assessment by simplifying the return submission procedures	2 (.5)	6 (1.4)	37 (8.9)	94 (22.5)	278 (66.7)	4.53	5	5	89.2
24	Enhance the use of information technology to reduce tax evasion	2 (.5)	3 (.7)	48 (11.5)	116 (27.8)	248 (59.5)	4.45	5	5	87.3
25	Tax laws should be enforced strictly, particularly for wealthier groups, to reduce tax evasion	4 (1.0)	6 (1.4)	49 (11.8)	120 (28.8)	238 (57.1)	4.40	5	5	85.9
26	Improve the capacity of tax administration	4 (1.0)	9 (2.2)	34 (8.2)	109 (26.1)	261 (62.6)	4.47	5	5	88.7
27	Increase mutual trust and fairness between taxpayers and tax officials	1 (.2)	5 (1.2)	30 (7.2)	109 (26.1)	272 (65.2)	4.55	5	5	91.3
28	Ensure an efficient tax administration	2 (.5)	7 (1.7)	26 (6.2)	98 (23.5)	284 (68.1)	4.57	5	5	91.6
29	Build tax offices as corruption-free institutions	3 (.7)	7 (1.7)	30 (7.2)	53 (12.7)	324 (77.7)	4.65	5	5	90.4
30	Tax officials should be well-paid and well-motivated	10 (2.4)	24 (5.8)	62 (14.9)	113 (27.1)	208 (49.9)	4.16	4	5	77.0
31	Tax officers need to be more professional to cater for people's requirements	2 (.5)	8 (1.9)	34 (8.2)	114 (27.3)	259 (62.1)	4.49	5	5	89.4

Source: Author's Analysis of Primary Data.