Tax Collection in Pakistan: Determinants and Impact on Economic Growth

Muhammad Faheem Ullah, Research Scholar, Institute of Business Management Sciences, University of Agriculture, Faisalabad, Pakistan
Hammad Badar, Assistant Professor, Institute of Business Management Sciences, University of Agriculture, Faisalabad, Pakistan
Kashif Hamid, Lecturer, Institute of Business Management Sciences, University of Agriculture, Faisalabad, Pakistan
Muhammad Yasar Saeed, Visiting Lecturer, Institute of Business Management Sciences, University of Agriculture, Faisalabad, Pakistan

*Corresponding author’s email: kashif.boparai@gmail.com

ARTICLE DETAILS

ABSTRACT

Purpose: Taxes are the primary source of government revenues. Through taxes, governments can increase the revenues needed for public spending. This study is aimed at investigating the determinants of tax collection and how they impact the economic growth of Pakistan.

Design/Methodology/Approach: The secondary data has been taken from 1990 to 2020 from different sources such as the World Bank and Pakistan Economic Survey. The regression analysis has been performed on the collected data. The study has taken tax collection as the dependent variable and per capita gross domestic product, exchange rate, exports, imports and unemployment and inflation rates as the independent variables.

Findings: Results indicate a significant impact of GDP per capita, exchange rate, imports, and exports on tax collection in Pakistan. Tax collection has a significant and positive impact on economic growth.

Implications/Originality/Value: The study findings urge to frame policies for increasing gross domestic product per capita, controlling inflation and unemployment for greater attraction of taxpayers for the sake of high tax collection. The high unemployment rate and inflation are the main barriers to tax collection and the country's better economic growth. This study will be helpful to the concerned public-sector institutions in improving tax collection in Pakistan, and the government should take necessary steps to improve and develop a solid mechanism to collect taxes.

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Introduction
Taxes are the main source of revenues for governments in developed and developing economies. The socio-economic development of countries heavily relies on taxes. An effective and efficient taxation system equipped with modern technologies, equipment and processes can generate higher tax collection. Governments strive hard to raise tax collection so that the public may be provided with various facilities such as roads, health cover, education, law enforcement, social security, and preservation. It is widely believed that taxes play a crucial role in building nations sustainably (Ahmad et al., 2013). That is why greater emphasis is laid on developing an efficient tax system for generating domestic resources. However, collecting taxes is considered a challenging task due to many reasons, including evasion of tax and corruption (Oyedele, 2012).

Various authorities collect taxes at federal, province, and local levels in Pakistan. The Federal Board of Revenue (FBR) collects federal taxes which manly include income and sales taxes and federal excise and customs duties. The primary responsibility of the FBR is to plan and implement various strategies and action plans for raising and tax collection (FBR, 2020). The provincial taxes mainly include property tax, vehicle tax, stamp duty, professional tax, and excise duties on hotels, cinemas, and services. The provincial excise and taxation departments collect these taxes (Zaidi, 2015). At the local level, districts, tehsils, towns, and union councils collect taxes on road networks, bridges, highways, licenses, and cattle markets.

The Federal Board of Revenue is endeavoring to enhance the capability and capacity of the system to collect more taxes. For this purpose, modern technologies and systems are also being used. However, slower growth of the economy, low and narrow industrial base, corruption and bribery, and inadequate political determination appear as the major stumbling block. Furthermore, a sizeable part of the economy is not documented and digitalized. Tax-to-GDP ratio indicates the status of the collection of taxes in relation to the country’s Gross Domestic Product. Generally, developed countries have a a have tax-to-GDP ratio than developing countries. The lower tax to tax-to-GDP has always been a constraint on economic development and a main reason of higher fiscal deficits in Pakistan. Economic growth depends on tax collection, exchange rate, exports, inflation, imports and employment (Aslam et al., 2018). This research seeks to investigate the influence of various factors such as inflation rate, exchange rate, import, export, unemployment, and GDP per capita on tax collection in Pakistan.

Pakistan faces the challenge of raising tax collection every year, and the problem of fiscal deficit constrains the government in realizing its development goals. This study supports policymakers and regulators in framing appropriate policies for increasing tax collection in Pakistan. In addition, the study contributes to the literature on tax collection and has filled the knowledge gap that has not been addressed in Pakistan.

Literature Review
Literature has highlighted the importance of taxes in attaining the economic growth and development on sustainable basis in developing and developed economies. Tax is a compulsory payment a individuals or businesses make to a government for effective and smooth functioning of a country’s economy. The term "tax" has originated from the Latin word “taxo”, which implies estimate (Kulkarni and Hinge, 2019). Taxes are levied across the world to collect money for government expenditures and social schemes for the public.

Ghuge and Katdare (2016) describe taxation as the primary source of revenue for governments, and a sound taxation infrastructure is essential for economic growth. A tax structure that facilitates ease of doing business and bars tax evasion contributes significantly to bringing prosperity to a country’s economy. According to them, India has a well-developed tax system with the three tiers of the government collecting taxes and duties at their levels. Although the
taxation system in India has been reformed many times, it is not flawless and is facing many challenges, such as reliance on indirect taxes, corruption and tax evasion, which highlight the need for significant policy adjustments to address these challenges.

Several studies have argued that appropriate adjustments in taxation policy can further help generate fiscal revenues, ultimately resulting in higher economic growth. On the other hand, poor taxation policy can have adverse effects. For example, a large gap between target revenue and actual tax collection can have undesirable and significant impacts on economic growth. However, the gap could be narrowed by broadening the tax network and modernizing and reforming the country's tax administration and infrastructure, as evident in the study of Illyas & Siddiqi (2010). Broadly taxes are identified as indirect and direct taxes. Several studies have observed that indirect taxes are the primary cause of cost-push inflation in emerging economies. Moreover, it also brings income inequality in countries. Since developing countries need capital and finances for public revenue expenditures, they remain more inclined to generate revenues from indirect taxes, which can be collected relatively easily but may harm the overall economy in the long term. According to Furceri & Karras, 2008, a continuous rise in tax rate may have a negative impact on real GDP per capita in the longer term. Pakistan is one of those countries that mainly rely on indirect taxes. Almost 70% of annual public revenues are generated from indirect taxes. That is why the relationship of taxation with economic growth has been negative in the recent few years (Ahmad & Sial, 2016).

Many studies have identified factors that play a key role in enhancing economic growth, imports and exports, exchange rates and inflation. Economic policy performance depends on these factors because of their significant contribution to generating revenues (Aslam et al., 2018). One of the more enormous challenges in taxation policies is amnesty schemes. These schemes can be a harmful act in the tax authorizations system. On the other hand, such schemes may also have a positive side as it increases state revenues. However, Sari & Mulyati, 2018 argue that an increase in tax revenue may not necessarily increase the tax to GDP ratio. As a result, several tax amnesty policies offered over time in Pakistan could not bring desired results.

Furthermore, Kalas (2018) has investigated the association of taxes with the economy's growth in Serbia and Croatia. The study results indicate that taxes positively and significantly impact economic growth. However, other factors such as inflation, exchange rate, imports and exports also impact economic growth. Given the importance of these factors, the study has incorporated these factors in determining the impact of taxes on economic growth.

**Methodology**

This research aims to find determinants of tax collection and their impact on economic growth, which is a key parameter for analyzing the economic performance of any country (Saeed et al., 2018; Saeed et al., 2020). The required secondary data has been gathered from The World Bank and various issues of the Pakistan Economic Survey. The explanatory variables used in the study include gross domestic product per capita, exports and imports, exchange rate, inflation rate and unemployment rate. The tax collection in Pakistan has been included as the dependent variable (Table 1). The study model is as below.

**Table 1: Data Sources and Description**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Description</th>
<th>Data source</th>
<th>Nature</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tax collection</td>
<td>TC (Annual %)</td>
<td>Pakistan Economic survey</td>
<td>Dependent</td>
</tr>
<tr>
<td>Inflation Rate</td>
<td>INF% of GDP</td>
<td>The World bank</td>
<td>Independent</td>
</tr>
<tr>
<td>Export</td>
<td>EXP% of GDP</td>
<td>The World bank</td>
<td>Independent</td>
</tr>
</tbody>
</table>
Unemployment rate  
Exchange Rate  
Import  
GDP Per Capita  
Economic Growth  

\[ Y = \alpha + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \beta_5X_5 + \beta_6X_6 + \varepsilon \]

Table 2: Regression Coefficients

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>T</th>
<th>Sig.</th>
<th>Collinearity Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
<td>Tolerance</td>
</tr>
<tr>
<td>(Constant)</td>
<td>-11748.762</td>
<td>1333.057</td>
<td>-8.813</td>
<td>.000</td>
<td>1.000</td>
</tr>
<tr>
<td>INF</td>
<td>14.423</td>
<td>18.831</td>
<td>.051</td>
<td>.766</td>
<td>.452</td>
</tr>
<tr>
<td>EXCH</td>
<td>29.678</td>
<td>7.316</td>
<td>.237</td>
<td>4.056</td>
<td>.000</td>
</tr>
<tr>
<td>UNEMP</td>
<td>107.980</td>
<td>37.343</td>
<td>.223</td>
<td>2.892</td>
<td>.008</td>
</tr>
<tr>
<td>GDP(Per capita)</td>
<td>9.730</td>
<td>.615</td>
<td>1.162</td>
<td>15.818</td>
<td>.000</td>
</tr>
<tr>
<td>IMPORT</td>
<td>-18.721</td>
<td>5.584</td>
<td>-.205</td>
<td>-3.352</td>
<td>.003</td>
</tr>
<tr>
<td>EXPORT</td>
<td>13.494</td>
<td>6.076</td>
<td>.124</td>
<td>2.221</td>
<td>.036</td>
</tr>
</tbody>
</table>

Dependent Variable: Tax Collection

Coefficients of the exchange rate and gross domestic product per capita are highly significant, with a P-value of 0%. The impact of imports on tax collection is negative at a 3% level of significance. This implies that an increase in imports negatively affects tax collection and can be a hurdle in meeting fiscal expenditures and overall economic development. The exports have a statistically significant impact on tax collection at a 3.6% significance level. Hence, there is a dire need to enhance the exports volume of the country.

Table 3: Regression Coefficients

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>T</th>
<th>Sig.</th>
<th>95.0% Confidence Interval for B</th>
<th>Collinearity Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
<td>Lower Bound</td>
<td>Upper Bound</td>
</tr>
<tr>
<td>(Constant)</td>
<td>56.070</td>
<td>6.494</td>
<td>8.634</td>
<td>.000</td>
<td>42.767</td>
<td>69.373</td>
</tr>
<tr>
<td>Tax collection</td>
<td>.075</td>
<td>.004</td>
<td>.962</td>
<td>18.688</td>
<td>.000</td>
<td>.066</td>
</tr>
</tbody>
</table>
Dependent Variable: Economic growth

Regression coefficients presented in Table 3 reveal how tax collection impacts the economic growth in Pakistan. The coefficient shows that one unit change in tax collection brings about a 7.5 unit change in economic growth in Pakistan.

Table 4: Impact of Tax Collection on Economic Growth

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Std. Error of Estimate</th>
<th>Change Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>R</td>
<td></td>
<td></td>
<td>R Square Change</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>F Change</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>df1</td>
</tr>
<tr>
<td>1</td>
<td>.962a</td>
<td>.926</td>
<td>24.95849</td>
<td>.926</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Tax collection

The R-Square value in Table 4 highlights that 92% variation in the dependent variable (economic growth) occurs due to the tax collection. The remaining 8% variation may incur due to other unexplored factors. Since the value of R-Square is higher than 0.75, the model seems the best fit.

Table 5: Analysis of Variance

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Regression</td>
<td>217540.923</td>
<td>1</td>
<td>217540.923</td>
<td>349.224</td>
<td>.000</td>
</tr>
<tr>
<td>Residual</td>
<td>17441.930</td>
<td>28</td>
<td>622.926</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>234982.853</td>
<td>29</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: Economic growth
b. Predictors: (Constant), TAX collection

Table 5 reflects the overall fitness of the model. A p-value lower than 5% denotes the significance of the outcome and shows improvement in the variable prediction. The F-ratio in this model has a value 349.224, which indicates the model's overall fitness.

Conclusion and Recommendations

Raising tax collection is vital for sustainable economic growth. The tax structure of a country is considered the backbone of a nation. It is difficult to put the economy on a growth path without generating sizeable funds. According to the findings of this study, tax collection has a strong relationship with economic growth. It highlights the need to raise tax collection to attain economic growth and development. This study indicates GDP per capita, exchange rate and imports as the significant predictors of tax collection in Pakistan.

Given the study findings, the following measures may help the government improve tax collection, which will enhance Pakistan's economic growth. Inflation has undesirable effects on economic growth and incurs due to an increase in the prices of goods and services. Therefore, there is a need to focus on direct taxes to boost the country's economic growth. Therefore, the government should increase tax collection through direct and indirect taxes to reduce poverty and improve public welfare. However, an exclusive focus on indirect taxes may lead to a price rise. Consequently, the public suffers due to a decline in real income.

The policymakers should create awareness among the public and businesses about the importance of paying taxes. The economy of Pakistan cannot grow sustainably with existing tax collection.
Therefore, the government should build a solid framework for mobilizing additional resources. In addition, there is a need to control the interest rate to encourage taxation and investment and utilize it as a monetary instrument for controlling inflation in the economy. Furthermore, the government should watch the exchange rates and inflation, import and unemployment.

References


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