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FISCAL MANAGEMENT

Edited by Nadeem Javaid & Faheem Jehangir Khan

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FISCAL MANAGEMENT

(Volume XX)

Edited by Nadeem Javaid & Faheem Jehangir Khan



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PART I

FISCAL MANAGEMENT

Research Papers

THE GOVERNANCE STRUCTURE AND FLAWS WITHIN; A CASE STUDY OF MINISTRY OF SCIENCE AND TECHNOLOGY AND ITS PUBLIC SECTOR ENTITIES

Ayezza Sattar¹ and Mahmood Khalid²

ABSTRACT

The Federal Government of Pakistan has around 40 Ministries/Divisions, and several Public Sector Entities/SOEs working under the control of respective ministries. The Rules of Business 1973 define the autonomous bodies or Public Sector Entities as we call them, but the Rules of Business are not clear enough. The Public Sector Entities (PSEs) either receive grants from their respective ministries and use these with or without any adequate accountability. In some cases, the PSEs perform essential statutory or regulatory functions. They generate huge funds, much of which is used by the organization concerned to meet its expenses. Quite often, accountability systems other than the routine audits are lacking. The State-Owned Enterprises Act 2023 and The PFM Act 2019 provide the essential framework for governance of these Public Sector Entities, but still, much needs to be done.

The study reviewed the organizations under the administrative control of the Ministry of Science and Technology. The Ministry has 14 autonomous bodies under its control, and all are significant in terms of providing essential services related to the advancement of science and technology in the country. We studied the Ministry as a whole and then focused on 5 of its autonomous bodies.

We find structural flaws within the structure of governance and make the following recommendations to address these.

- The autonomous bodies shall have a schedule in the Rules of Business 1973 as proposed by the Institutional Reforms Cell headed by Ishrat Husain.

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- The organisations under the ministry of S & T shall be categorised as per Section 36 of the PFM Act 2019 and shall follow the SOE Act 2023 and SOE Policy 2023 as well.
- The organizations, under the Ministry of S & T shall manage their human resources effectively and shall have proper heads overseeing their administrative matters adequately.

1. INTRODUCTION

The Ministry of Science and Technology was established in 1965 to build a platform for the development and advancement of science and technology in Pakistan. It was an era full of zeal, novel ideas and an endeavour to take the country to the highest possible level of technological advancement, and the government was deeply inclined towards scientific growth and development (Awami Politics, n.d.). Besides, the trio of Universities, Research organizations and Industry needed a proper platform to collaborate and create opportunities for implementing the ideas conceived by the scientists (Hussain, 2024).

At present, the Ministry of Science and Technology has 14 organizations under its direct administrative control. Out of these, three are Universities and the rest are either research organizations or regulatory authorities. The organizations that work as regulatory authorities are responsible for monitoring the standards of quality of the products developed by the industries in the country. This means that the scope of work of these organizations is over-arching. Still, as we see, not much has been attained in terms of scientific advancement in the country. Why has the voyage not resulted in adequate outcomes, and how inefficient is the administration of these SOEs or PSEs? These questions are the focus of this study.

The Public Sector entities that fall under the administrative control of the Ministry of Science and Technology may be defined as Public Sector Enterprises as per the definition of PSEs/SOEs provided by OECD (Allen et al., 2013). The definition states that “Public sector entities or State-owned entities are the government-owned or government-controlled entities whose assets are held in corporate form and which generate the bulk of their revenues by the sale of goods and services.”

The organizations that the Ministry governs are almost all defined as corporate bodies in their respective laws. They all offer the sale of goods and services in one way or another, and the government holds a significant role in appointing their board members, heads, and so on. None of the 16 organizations has been declared as an attached department in the Rules of Business, 1973 (GOP, 2021). Their absence in Schedule 3 of the ROB, 1973 and their ambiguous inclusion in Schedule 2 make their administration a treacherous path that the Ministry must tread.



The Ministry of Science & Technology, in its present form, has been in operation since 1972. It is supposed to be the national focal point for planning, coordinating and executing scientific advancement in the country.

The Day-to-day business assigned to this Division under Schedule-II of the Rules of Business 1973 is undertaken by four technical Wings, each headed by BS-20 level officers, while the Administration and Finance & Accounts Wings are being headed respectively by the Joint Secretary Administration and Chief Finance & Accounts Officer (CF&AO). The Planning & Development Cell is also operating in the Ministry. Although the Planning and Development Wing is in rudimentary shape, officers from the Planning Commission who are supposed to be part of the cell have never been posted there. The Organization Wing is headed by an officer of the civil service who is in BS 20.

A detailed overview of the Ministry explicitly details the flaws within the administrative structure of the Ministry. A brief picture of the business assigned to the different wings of the Ministry is given below:

There are eight Wings within the Ministry, namely,

1. Technology Wing
2. Electronics Wing
3. International Liaison Wing
4. Organization Wing
5. Planning and Development Cell/Wing
6. Finance Wing
7. Policy and Coordination Wing
8. Administration Wing

The eight Wings within the Ministry are supposed to develop cohesion and provide the subordinate organizations a way forward. But here, a clear division in authority, responsibility and subsequent accountability is evident.

Prima facie, the distribution of work within the Ministry is haphazard. The job description provided by the relevant authorities is inviable. For instance, the officers working in the Electronics Wing are doing work that had to be carried out by a dedicated Planning Cell. Each Ministry at the federal level has an independent Planning Wing that the officers of the Planning Commission

generally man, but, unfortunately, here, the story is different. There is no presence of the Planning Commission at the Ministry of S & T, which means that, effectively, the most important job is being carried out by officers who have no training in the subject. And then almost all the wings are somehow doing the same thing, in one way or another, so this weighs down the efforts that are needed to bring about a reasonable change in the working of the organizations. Almost all organizations under the ministry's control have the potential to grow, but the growth is stunted owing to the mismanagement of the available resources. The development projects often take years, and as a result, the cost of a project far exceeds the initial estimation.

Given this context, this report begins with an analysis of the Ministry of S & T and its several wings that perform different activities. This analysis provides insights into what went wrong and how it can be improved. An overview of the Ministry revealed that there are multiple problems regarding turf within the Ministry, and the wings lack efficient coordination. This results in bad governance and a dichotomy of authority that produces friction within the offices, and, as a result, the work suffers.

The paper studies the basic concept of Public Finance Management in the country and focuses on how the subject organizations have followed the dictums of modern-day Public Finance Management. This paper will also discuss the role and importance of the Finance Division in the financial management of the Public Entities that fall under the administrative control of this Ministry. Keeping in view the PFM Act, 2019 and the subsequent legislations, and the present situation of the organizations, this research will come up with recommendations that can help the organizations achieve substance, budget sustainability, transparency, and meaning! This study is an endeavour to study Public Sector Expenditure Management in the field of Science and Technology, and will try to carve out a path for the organizations specifically and for the government generally, to tread upon. It will also spur a debate as to whether we need to dissolve some organizations if revival is not an option, as the deterioration has been profound and irreversible.

Purpose and Scope of the Study

The purpose of this study is to present a kaleidoscopic version of the fault lines within the system of governance in the country. The study presents a detailed diagnostic analysis behind sub-optimal outcomes of the organisations that fall under the ambit of the Ministry of Science and Technology. The main research questions addressed in this study are: The specific questions are:

Do we have an organisation that requires a significant revival effort?

1. Are there organisations that should be closed?
2. Should the dying organisations be kept alive at the expense of the Public Exchequer?

Some associated research questions will be as follows:

- a) What has been the role of the Finance Division in providing an adequate framework for governance to the Ministries?
- b) Are there any fault lines within the governance structure of the Ministry of Science and Technology that exacerbate the problems of the organisations that it controls?

The study evaluates the Public Sector Expenditure Management in the context of organizations within the Ministry of Science and Technology's domain. The study also seeks to assess the impact of research carried out by the organisations under the control of the Ministry of S&T. Also, assess whether the organizations misuse their authority.

2. LITERATURE REVIEW

Although the subject is not a new one and the institutional reforms cell headed by Ishrat Husain came up with a good deal of reports on the subject matter, still apart from a few manuscripts and a book by Ishrat Husain entitled "Governing the Ungovernable" not much has been written academically about institutional reforms in the entities owned by the state. Nonetheless, the working papers of the IMF, PIDE and World Bank are very pertinent in illustrating the need for reform in the Public Sector and the reasons for sub-optimal performance by the government sector entities or the autonomous bodies. N'Diaye (2001) described at length the need for reform in the government in Africa. The paper seems relevant in this country's milieu as well. The author argues that the presence of the government in all sectors of the economy leads to disastrous consequences. As per the author, the way to institutional reforms is only through the separation of government from those sectors of the economy that provide goods and services.

The author also describes the interventionist system in the services sector and states that the regulatory system is entrenched in the African economy, where each sector is super-regulated, and foreign direct investment is attracted by providing the investors with monopoly rights. The absence of fair competition leads to sub-optimal outcomes.

This is the case with Pakistan, too. Multiple organizations are presently regulating the industries in Pakistan; each has a mandate that overlaps with the mandate of the other, and there is very little value addition coming out of these regulatory/accreditation bodies.

Another important paper provides a detailed description of the role of institutions in governance and the relationship between institutions and public sector organizations. This paper describes the formal and informal institutions and states that “. Formal institutions are the (written) laws, regulations, legal agreements, contracts, and constitutions that third parties enforce through some mechanism, while informal institutions are the (usually unwritten) norms, procedures, conventions and traditions that are often embedded in culture. The paper described at length the difference between Institutional reform and organizational change and stated that organizational change is brought into play by institutional reforms. Institutions are changed, tackled and managed by organizations.

GSDRC. (n.d.) proposes a framework of six elements to assess political commitment and ownership of reforms: a) whether impetus for change is external or internal, b) whether domestic actors have been the drivers behind assessing policy options, outcomes and costs/benefits; c) the extent of consultation with stakeholders; d) public commitment and allocation of resources; e) continuity of effort and commitment of resources and planning for the long term; and f) whether processes for adaptation and learning have been established.

Zafarullah & Huque (2013) describe at length the informal and formal norms prevalent in the public sector institutions, and it is argued that the reforms can only come when those norms are changed, and the impetus to change comes from within. One result of not taking informal institutions into account can be ‘isomorphic mimicry’ – when governments copy formal rules without changing implicit rules and norms (Pritchett et al., 2010).

The essence of change in institutions is the understanding and acceptance of a need for change by those who implement the changes. (Helmke & Levitsky, 2004). In the context of Pakistan, we see that the donor agencies mostly identify the reforms. This leads to a halfhearted approach and no significant change transpires.

Emmanson & Ajayi (2021) explained the state of reforms within the public sector entities in Nigeria that were carried out between 2015-20 and stated that most of the reforms have failed owing to widespread corruption and reluctance to adapt to the reforms identified by the donors.

In the case of Pakistan, the same problem has been encountered. Husain (2018) has narrated the tale of institutional decay in the last 40 years. He argues that the misplaced priorities of the government diminished the growth that had been achieved in the initial 40 years of Pakistan.

Kugelman & Husain (2018) explain the necessity of reforms in the public sector Entities in Pakistan. It opines that the institutes have been politicised and the civil service suffers from a decay that is entrenched in its system, and that hinders any growth of the PSEs. N'Diaye (2001). enunciates the importance of restricting the government's role in the provision of goods and services and the involvement of the private sector in the same, to provide an impetus for growth to the entrepreneurial class.

It comes up with the nine guiding principles of reforms that are as follows:

1. A new pragmatic and result-oriented framework.
2. Clarification of objectives
3. Intelligent political strategies and policies
4. Goal-oriented competencies and skills development
5. Experimentation and innovation
6. Professionalism and improved morale
7. A code of conduct for public sector entities
8. Pragmatic anti-corruption practices
9. Effective public financial management

The book provides a detailed description of the way different countries have benefited from the reform process and how other developing countries can learn from the countries included in the book.

Another seminal paper argues that a significant chunk of public sector reforms has been a result of objectives set out by the donor agencies, and that is why the reforms have not been very successful.

GCPSE (n.d.) illustrated the paradigm shift that has occurred over the last few decades. The old norms of public administration have changed and have paved the way for the New Public Management, which is more people-centric and market-oriented. The reforms in the civil service make a significant contribution to the implementation of the concept of new public management. In the same paper, the example of Singapore has been quoted, and it has been noted that making the civil service a more competitive and rewarding career has served well. The new public management differs in many respects from the old public administration, and a thorough understanding of the same is very important for the civil servants of the developing countries.

Brinkerhoff & Johnson (2009) state that the world has gone even further than the concept of new public management, which is based on the principles of market-oriented treatment of the public sector enterprises. The NPM framework has worked mainly in OECD countries, but in the developing world, it has not worked as efficiently as was imagined. The new world, with its globalisation and amorphous borders between north and south, is fraught with practical implications for the new public management, and now, the need for reforms and developing a new paradigm is apparent. As we see in the case of Pakistan, the institutions have weakened, and there is widespread corruption in the public sector enterprises that has resulted in continuous loss-making of the organizations. A new model for reform and actionable planning is urgently needed.

Iacovino et al. (2017) state that in the present world, the public administration can take advantage of the three models of public administration, namely the OPA Model, the NPM method and the PG method. In all these models, 'the need for public service delivery "and at this particular point in time, the public service practitioners can amalgamate all three principles to help achieve the task.

Faraz (2020) gave the solution to the ailments that plague the institutions in Pakistan, and that was a "comprehensive civil service reform ", and the reforms can come if the political will is strong, and the reforms included

restructuring the federal government. This meant that the 440 organizations working under the federal government need to be categorised and then brought under two categories: a) autonomous bodies and b) executive departments.

This paper is critical in the context of our study, as the main problem with the entities that fall under the Ministry of Science and Technology is that they have not been categorised adequately. The government needs to decide the scope of work for these organizations and whether the organization needs to be retained, liquidated, or, in some cases, privatised.

In Khan & Hijazi (2003), the positive and negative consequences of privatisation have been narrated at length. The same will be discussed while making recommendations towards the end.

Most of the literature that we found was in the context of institutional reform, and this research paper is the first to provide an in-depth examination of the working of the public sector entities under the administrative control of the Ministry of Science and Technology. All the literature available points to one direction, and that is “A strong Political Will “and instilling a performance-based budgeting in the PSEs and dealing with these PSEs by amalgamating the old public administration principles with the ideas of new public management.

3. RESEARCH METHODOLOGY

The methodology used in the research was primarily qualitative and was based upon thematic analysis of the content available to the researchers. However, a quantitative analysis of the budgets, along with objective performance indicators, was also carried out.

Yin and Stark’s Case Study model was applied, wherein embedded research was carried out by selecting a few groups of government offices, and each of the five organizations was taken as a case study. Then, through the literature available and field study, a thorough analysis was carried out. The methodology of research was content analysis and decoding the ideas presented by the officers from all these organizations, the Ministry of Science and Technology, the Finance Division and the Cabinet Division. The themes upon which the content analysis was based were as follows:



- The public sector financial management and the hurdles therein
- The willingness to bring about reform
- The framework of Rules/Regulations
- The understanding of the scope of the organization
- The intellectual and moral integrity of the officers

The organizations working under the administrative control of the Ministry of Science and Technology were studied with a particular focus on the five selected organizations. Using the study of their statutes and their performance thereunder, an exhaustive analysis has been carried out. The role of the Finance Division and Cabinet Division has been analyzed in depth

Purposive Sampling: To study the concept of Public Sector Expenditure Management for Budget sustainability in detail, a particular purposive sampling of respondents has been undertaken by dividing the federal government into two groups of people:

Group A: This group consisted of the officers of the federal government.

Group B: This group consisted of the officers from the selected autonomous bodies. A particular questionnaire was circulated and used for the interviews.

At the instrument level, “Key Informants Interviews” were the primary source of research. As stated above, the officers were divided into two categories:

- 1) The officers from the Federal Government.
- 2) Officers from the autonomous bodies.

After selecting officers, multiple group discussions were carried out.

As stated earlier, the research was in the form of a thematic analysis. It is pertinent to mention here that Virginia Braun and Victoria Clarke primarily developed the process for thematic analysis. The process allows the researcher to have a flexible ground to generate and code themes that are most relevant to his/her study and then devise questions. Two approaches are fundamental to the thematic analysis:

A: Inductive Reasoning Inductive reasoning means that the researcher acquires data first and then gets it sorted out into themes, and from those themes, the researcher derives the results or the findings.

B: Deductive Reasoning: It is when the researcher already has some preconceived notions about the data and arranges the themes accordingly, and after in-depth interviews and analysis of secondary data, reaches the findings or conclusions.

Furthermore, there are two types of approaches to the thematic analysis of secondary data. It's either a semantic approach where the researcher dwells on the language and gets conclusions as per the texts available and the other approach is latent where the researcher dwells deep into the underlying context of the data collected and derives conclusions.

Approaches Used in the Research:

This study primarily used the following approaches:

A: Inductive Reasoning: As the PI has been a part of the civil service for over a decade, some understanding of the malignancies of the system was already in their head. However, as there has been no research on the subject matter earlier, Inductive Reasoning has used to conduct the research. Nonetheless, the themes constructed had a due share of the preconceived notions of the researcher, and the second approach that was applied to derive findings and conclusions is the latent approach.

The themes were coded into various questions, and upon receiving responses, the codes will be deciphered through latent and inductive reasoning. Research was primarily intended to be qualitative, but a brief quantitative analysis also helped explain the financial condition of the organizations and the Ministry in general. The study also quantitatively analyzed the budgeting and expenditure details of the organizations, while the descriptive analysis of the organizations was carried out. The PFM Act, 2019 and the subsequent legislation, including the Financial Statements of the organizations, their Rules and Regulations, and their Acts, have been the focus of the study.

4. DISCUSSION AND FINDINGS - I

History of the Ministry of Science and Technology and Present Portfolio

The Ministry of Science and Technology was initially established as the Scientific and Technological Research Division in 1964. This Division was administratively responsible for the National Science Council, the Council of Scientific and Industrial Research, the Atomic Energy Commission and the Space and Upper Atmospheric Research Committee.

The Ministry of Science & Technology, in its present form, has been in operation since 1971 (Joint Economic Adviser, 2024). As per the Rules of Business 1973, 14 organizations and multiple functions have been assigned to the Ministry.

A detailed overview of the Ministry explicitly details the flaws within the administrative structure of the Ministry. A brief picture of the business assigned to the different wings of the Ministry is given below

There are 8 Wings within the Ministry, namely,

1. Technology Wing
2. Electronics Wing
3. International Liaison Wing
4. Organization Wing
5. Planning and Development Cell/Wing
6. Finance Wing
7. Policy and Coordination Wing
8. Administration Wing

The eight Wings within the Ministry are supposed to develop cohesion and provide the subordinate organizations a way forward. However, a lack of coordination seems to be the norm.

A brief overview of the eight wings of the Ministry is given below.

The International Liaison (IL) Wing:

Mandate: International Cooperation in Science & Technology constitutes an integral function of the Ministry of Science and Technology (MoST) under Schedule-II [Rule 3 (3)]-28 (9)] of the Rules of Business-1973. It is mandated to provide opportunities to subordinate organizations of the Ministry. It also facilitates Pakistani scientists and engineers in networking with their international counterparts to enhance individual as well as institutional capacities (GOP, 2022).

Main Functions: To manage matters regarding bilateral and multilateral cooperation in Scientific & Technological fields under the umbrella of Bilateral Agreements/MRAs/PoCs/MoUs, Joint Economic Commissions (JECs), Joint Ministerial Commissions (JMCs) and Working Groups (WGs) on Science & Technology.

Analysis: A detailed analysis of the IL Wing entails that much of the focus of this Wing is on developing Memorandums of Understanding with multiple organizations. The IL Wing is also supposed to create opportunities for international training for the officers of the Ministry and scientists from the many organizations that fall under the Ministry's ambit; however, nothing concrete has been achieved so far. Of late, around seven MOUs have been signed, but these need better management as merely signing documents cannot create the spirit of inquiry in the country (Officers of the IL Wing, 2024).

The Technology Wing

The Technology Wing has been entrusted to initiate and monitor various programs for the development of technology and industrialisation in the country. This wing also acts as a liaison wing between different ministries and national and international bodies for the development of science and technology in the country. The full mandate of the wing is:

Mandate:

- Promotion and development of industrial technologies
- Promotion of Metrology, Standards, Testing and Quality Assurance System

- Promotion of mechanisms and procedures to provide for effective conservation and efficient use of energy
- Establishment of an accreditation system for testing laboratories and certification bodies across the country
- WTO / TBT affairs relating to PSQCA
- Technical matters of PCSIR, PNAC, PSQCA, PEC, PHA and NEECA

Analysis: An analysis of the Technology Wing suggests that the Wing has been trying hard to develop different policies to enhance scientific advancement in the country. For instance, the Technology Wing developed the National Industrial Hemp and Medicinal Cannabis Policy in collaboration with the Pakistan Scientific and Industrial Research Council. This policy enunciated the use of Hemp for medicinal purposes. Besides, a National Quality Policy has also been developed by the same Wing in coordination with the organizations that perform regulatory/accreditation functions in the country.

On a closer look, we see that policies have been duly developed, but still, the implementation is a far cry. The National Industrial Hemp and Cannabis Policy, for example, still needs validation by the cabinet, and the cannabis project initiated by the PCSIR concerning the development of industrial cannabis has not come up with anything substantive.

Organization Wing

The Organization Wing generally deals with the administrative matters of the organizations. The appointment of heads of these organizations under the Ministry's control, and routine administrative matters are handled by the organization Wing.

Analysis: The organization wing is presently working as a coordination wing, and this wing has performed nothing substantively. The scope of this wing can be increased by making it part of the many endeavours that the Ministry is carrying out to develop scientific and technological advancement in the country. Civil servants generally man the organization wing and should have a say in the policy-related matters of the Ministry.

Electronics Wing/ PSDP Wing

The electronics wing is primarily dealing with the development-related projects of the Ministry and is also working on amending various bills/acts of the organizations. The same wing also coordinates the e-governance in the Ministry.

Analysis: The portfolio of the electronics wing calls for a revisit. The electronics wing is performing the functions of the development wing as well, which needs to change. There needs to be a dedicated Planning Wing within the Ministry that can work on the Public Sector Development Program-related projects of the Ministry (Ahmed, 2024).

Finance and Accounts Wing

The finance and accounts wing carries out a great deal of functions. It manages the planning related to the budget of the Ministry and its organizations. It also coordinates with the audit authorities in terms of managing the external audit of the Ministry and its subordinate organizations.

The Finance and Accounting Wing has strived to work with the organizations and help them get over many of their financial obstacles, as most of the organizations have not devised elaborate financial rules. The Finance and Accounts wing keeps track of the financial performance of the organizations and provides all the necessary assistance to them.

Policy and Coordination Wing

This wing deals with the development of the National Science Innovation Policy and the technical matters of some selected organizations working under the Ministry. A holistic appraisal of the wing suggests that many functions of this Wing overlap with the functions of the Technology Wing. This wing has a deep coordination with the Pakistan Council of Science and Technology, and in the past, the idea of merging PCST with this Wing was floated but did not materialise.

The development of the National Science, Technology, and Innovation Policy was a breakthrough, but the Wing needs to work in close coordination with the organizations to ensure its implementation.

Administration Wing

This wing manages the administrative matters of the Ministry, focusing on personnel management and resource management.

To sum up this section, the Ministry needs to reorganise itself and determine whether it needs eight wings. What if the distribution of work is done in a way that fewer wings with multiple and varied functions are created?

Presently, 14 organizations are working directly under the umbrella of the Ministry of Science & Technology. One of the autonomous bodies has further developed two subordinate offices, but those have not been made part of the study. Owing to multiple attempts by the Federal Government to reorganise and reform the public sector entities, some of the organizations previously working with the Ministry have been transferred to other ministries and some new organizations have been placed under the mandate of the Ministry of Science and Technology.

We have categorised these organizations into the following three broad categories:

1. Universities
2. Research-oriented entities
3. Regulatory bodies/accreditation providers

Each organization has a distinctive mandate, and differs in size, scope and functions as well.

Organisations Working under the control of the Ministry

Pakistan Council for Scientific and Industrial Research (PCSIR)

Mandate: PCSIR was established through the PCSIR Act, 1973, with a mandate to undertake, promote and guide scientific and technological research of problems connected with the establishment and development of industries in Pakistan and provide them with solutions that will improve their processes and efficiency by providing necessary technical assistance for growth and sustainability. Besides, PCSIR is supposed to offer technical assistance to the industry in optimising their processes, contributing to workplace safety and problem-solving technologies.



Progress: PCSIR initially developed 16 research laboratories in all major cities of Pakistan, like Karachi, Lahore, Peshawar, Quetta and Balochistan. These laboratories aid and support the small and medium-scale industries in research, testing and improving their efficiencies. These laboratories provide testing, analysis, and accreditation in the areas of textiles, food, pharmaceuticals, and cosmetics to help industries improve their processes and technologies. PCSIR has been upgrading their existing laboratories annually and injecting funds to modernise these laboratories to increase its capabilities in R&D and testing.

Problems: The PCSIR suffered a great deal due to the absence of a regular head. Since the appointment of the present Chairman of PCSIR, the organization has started working towards achieving its mandate, but the manpower required for significant research is not available in the organization. The development projects of the organization suggest good aims and ambitions, but little progress has been made. The organization is primarily performing the functions of product accreditation. The development of new products is not enough. The organization faces significant challenges in attracting and hiring the required human resources. One such challenge is the absence of approved Service Rules and Regulations.

Pakistan Council for Science & Technology (PCST)

Mandate: The PCST was established through the PCST Act, 2017, with a mandate to advise the Federal Government on national policies on science, technology and innovation for building up a strong and self-reliant science and technology system (GOP, 2024). It aims to undertake policy research, organize study groups or task forces, formulate policy proposals, and monitor and evaluate science, technology and innovation policy. Besides, it collects, updates statistics and maintains a database on the potential of science and technology in the country.

Problems: The fundamental problem with the organization is that it has been operating without clear leadership for many years. Since the adoption of its Act in 2017, it has not had a regular chairman. The Secretary of the Ministry is performing the duties of the head of the organisation. Being a pure science organization, it has been difficult for them to develop any innovative products while working under the leadership of a non-scientist bureaucrat. Besides, the service Rules and Regulations of the organization have just been approved, which means that the organization was operating without any adequate regulations. This has hindered new recruitment in the organization.



Pakistan Engineering Council (PEC)

Mandate: The PEC was established through the PEC Act, 1976, and is mandated to regulate the engineering profession in the country. It must perform various functions to achieve rapid and sustainable growth in all national and economic aspects. The primary responsibilities of PEC include registration of engineers, consulting engineers, constructors/operators. The PEC also accredits engineering programs offered by universities/institutes and assists the federal government as a think tank in establishing standards for engineering products and services. Besides, the PEC issues licenses to the engineers, registers engineering firms and regulates the engineering education in the country. The PEC acts as an arbitration forum to settle disputes in construction and consultancy contracts between two or more parties. The PEC also reviews and develops the curricula for engineering programs based on the outcome-based education (OBE) system.

Progress: The PEC has been a much better organization among the organizations working under the Ministry of S & T. It has made significant contributions to the development of engineering curriculum in the country and plays a central role in the accreditation of engineering programs of universities/institutes in the country. It has also successfully replaced manual registration of engineers and engineering firms with an online registration system, enabling seamless registration for engineers and firms.

Problems: The PEC is a very autonomous organization, and as such, the government has limited control over its operation. It can be argued that PEC makes a case for the government's less intervention in managing Public Sector Entities and shows that once provided with efficient infrastructure and autonomy, some organizations can do well. On the other hand, it gathers large sums of money that ought to have been credited into the FCF or the TSA, but this never happened. So, the writ of the government is a big question mark here!

Pakistan National Accreditation Council (PNAC)

Mandate: The PNAC was established in 1998 through the PNAC Act, 2017 and has the mandate to accredit all kinds of conformity assessment bodies, such as Laboratories (testing/calibration/medical), Inspection Bodies (IBs), Systems, products, personnel, and Halal Certification Bodies (CBs).

Progress: PNAC is the only organization in Pakistan which launched Halal Accreditation in 2023 and became a member of the International Halal Accreditation Forum (IHAF) and the Standards and Metrology Institute for the Islamic Countries.

Problem: The organization has generally done good work and has efficient administration. This organization is also relatively autonomous and has performed well in the accreditation of its products and services. The dedicated team PNAC does its work effectively, and the intervention of the government is limited. The problem with this organization is that its functions sometimes overlap with the PHA and PSQCA. Again, it does not give any money to the government, which causes a noticeable loss to the government's exchequer.

Pakistan Science Foundation (PSF)

Mandate: The Pakistan Science Foundation (PSF) was established in 1973 through the PSF Act, 1973, with the mandate to promote scientific and technological activities having a bearing on the socio-economic needs of the country. PSF plays a significant role in the promotion of science and in carrying out applied research at the university and institutional level.

Problems: The problem with this organization is that some of its functions overlap with the mandate of the Pakistan Council for Science and Technology. Moreover, there are many corruption-related complaints regarding this organization. Again, it earns and receives billions in the name of research, but there is no accountability.

Pakistan Halal Authority (PHA)

Mandate: Pakistan Halal Authority (PHA) was established under the PHA Act, 2016 and is a regulatory body mandated to promote halal trade evolving with new patterns of trade and production. PHA is mandated to ensure compliance by Pakistani firms with international, regional and national standards, laws, rules and policies on halal products, processes, and services. PHA is the sole Authority for certifying products and services, including meat/slaughterhouses, and imports/exports of halal products.

Problems: The organization lacks a clear functional framework, and its functions overlap with the functions of the PNAC.



Pakistan Council of Renewable Energy Technologies (PCRET)

Mandate: The Pakistan Council of Renewable Energy Technologies (PCRET) was established in 2001 by merging the National Institute of Silicon Technology (NIST) and Pakistan Council for Appropriate Technology (PCAT). PCRET is mandated to coordinate R&D and promotional activities in different Renewable Energy (RE) Technologies

Problems: PCRET has shifted its focus from R&D to mere testing, which has led to investing development funds in unproductive projects. Prima facie, the organization has lost its utility.

Pakistan Standards and Quality Control Authority (PSQCA)

Mandate: PSQCA was established through an Act in 1996 and provides a single window for Standardisation and Conformity Assessment. PSQCA is designated as the National Standard Body (NSB) of Pakistan and the National Enquiry Point (NEP). Its core function is to promote and engage stakeholders in standardisation activities, i.e., the development of Pakistan standards and ensuring that consumers and industrial goods are products as per standards set for the safety of Pakistanis. PSQCA must ensure protection of health, environment and discourage deceptive practices in Pakistan. The mandate of PSQCA is quite broad, and it performs the following functions under its mandate:

1. Licensing of locally manufactured products as per international practices to provide market access to quality products within Pakistan.
2. Certification of imported products as per international practices to provide market access to quality products in Pakistan. Accredited testing of locally manufactured and imported products as per Pakistan Standards.
3. Bilateral and Multilateral Technical Cooperation with counterparts in the area of Standards, Conformity Assessment Procedures, Technical Regulations, Capacity Building, Acceptance of testing and inspection reports for facilitation of trade.
4. Registration of 3rd party Inspection agencies, ensuring inspection services of locally manufactured and imported products as per applicable Standards. Securing membership at the International and



Regional level, i.e. International Organisation for Standardisation (ISO), International Electro Technical Committee (IEC), International Organisation for Legal Metrology (OIML), Standards and Metrology Institute for Islamic Countries (SMIIC), South Asian Regional Standards Organisation (SARSO). PSQCA takes part in policy-level activities in the above international and regional standards organisations.

Problems: Widespread corruption, inadequate infrastructure and absence of a regular chief executive are some of the issues being encountered by PSQCA. Financially, it's a very stable organization. Still, it lacks a clear financial framework, and many audit objections have been raised as the officers there take up a particular share of the revenue generated by the products accredited by the organization. This practice has no legal basis, and here comes the need for financial reforms in the country (CFAO, 2024).

Council for Works and Housing Research (CWHR)

Mandate: Council for Works and Housing Research (CWHR) was established through a Resolution in 1964 with the mandate to create and strengthen necessary infrastructure for Research and Development (R&D) activities in the field of housing and works. Presently, CWHR is the only organization at the national level responsible for quality testing of construction materials, carries out R&D and conducts research for the construction sector. CWHR undertakes commercialisation of R&D activities, including the transfer of technology.

Progress: For many years, the council has remained largely inactive, and the Institutional Reforms Cell had advised its closure. Of late, the Senate, the upper house of parliament, passed a resolution to retain the organisation, though it is in chaos. An analysis of the documents shared by the council with the Ministry revealed that it lacks sufficient human resources to carry out research in the construction sector. The state of Human Resource Management at the organization is abysmal. The post of the Chairman has been vacant for a long time, and there have been no recruitments lately. The highest-ranking regular employee of the CWHR is an officer in grade 18. An officer from PCSIR is heading the organization, and no rule can justify this arrangement.



National Institute of Oceanography (NIO)

Mandate: The National Institute of Oceanography (NIO) was established under the NIO Act, 2007, with the mandate to undertake multi-disciplinary research in physical, chemical, biological and geological oceanography in Pakistan's Maritime Zones (GOP, n.d.). It studies marine resources, including fisheries, minerals, and other potential economic resources in the ocean.

Problems: The organization is performing well in general, and if provided with better funds, it can expand its activities and help the field of oceanography to flourish in the country.

STEDEC Technology Commercialisation Corporation of Pakistan

STEDEC Technology Commercialisation Corporation (STCC) of Pakistan (Private) Limited was established in 1987 under the Companies Ordinance 1984 for the primary objective of commercialising PCSIR's products, processes and technologies. Subsequently, the scope was broadened to assist other R&D institutions, specifically those of the Ministry of S&T. STEDEC generates revenues through its commercial activities, and no development/non-development budgetary allocations are made to STEDEC in the budget. The purpose of STEDEC is to promote Industry-Academia-R&D linkages. The organization also facilitates the adoption of state-of-the-art foreign technologies in the local market to boost industrial development. Ultimately, the goal is to reduce the country's dependence on foreign technologies and resources and enhance import substitution.

Progress: STEDEC has successfully developed its sales and marketing network throughout Punjab to commercialise and promote products developed by the S&T organizations. But the commercialization of products has been at a marginal level only. The SOE Act 2023 listed it as a commercial entity, and subsequently, it had to be privatised, but the Ministry wants to retain it and transform it into an advanced Institute (GOP, 2023). It has helped startups and other R&D activities by helping to patent the innovations. The Table in Annexure provides the details on the products registered for patents. The Number of patents facilitated by STADEC is small and does not reflect the best outcome.

National University of Technology (NUTECH)

The National University of Technology was established as a pioneer national technology university, envisioned to become an internationally acclaimed research university for producing scientists who can lead technological advancement. NUTECH caters for all eight levels of the National Qualification Framework (NQF).

National University of Sciences and Technology (NUST)

The National University of Science and Technology (NUST) was established through the NUST Act, 1997, to provide a higher education experience grounded in leadership, co-creation of knowledge and sustainability. NUST is striving to become a world-class university.

COMSATS University, Islamabad (CUI)

Mandate: The COMSATS University Islamabad was established under the COMSATS University Islamabad Act, 2018, with a mandate to provide education and scholarship in such branches of knowledge as it may deem fit, and to make provision for research.

Progress: The COMSATS University Islamabad (CUI) is a fast-growing university. The university offers a wide range of academic programs, from basic sciences to cutting-edge emerging technologies. The university has a network of interdisciplinary research centres, making it a good place for higher studies leading to MS and PhD degrees. Pakistan. The Federal Government of Pakistan granted CUI the status of Degree Awarding Institute (DAI) on August 12, 2000. It was upgraded to a Federally Chartered University in April 2018.

Prima facie, the universities under the administrative control of the Ministry of Science and Technology are performing fine, and the independence afforded to them has borne some fruit.

5. FINDINGS AND DISCUSSIONS - II

A Detailed Overview of the Selected Organisations

PCSIR

Introduction

PCSIR is one of the pioneer organizations in the country mandated to undertake scientific and technological/industrial research in the country. PCSIR's Council of 21 members is a decision-making body that sets out plans for the growth of PCSIR. The PCSIR is supposed to conduct extensive research in medicine, textiles, construction, food, and the environment. The Council, as defined by the Act, could have been a very effective body, but for ages, the members of the governing body have not been appointed. As per the PCSIR Act, out of 21 council members, four must act as members of the governing body. The Council members include Member Finance, Member Science, Member Technical and the Chairman of the PCSIR. For the past 5 years or so, PCSIR has been functioning without a full-time Member Finance and Member Science. The posts have been assigned to the officers of the PCSIR on a look-after charge basis. This has led to inefficient management of the organization. This is one of the reasons why the organization has failed to develop a meaningful industry-academia linkage, which was the organization's original purpose.

A detailed overview of the products developed by PCSIR indicates that most of the products developed so far are of no concrete value. PCSIR needs to establish liaisons with the Universities, especially those under the Ministry of Science and Technology, and with the industry to conform to its mandate. It mainly provides testing services to the industry, which conflicts with its mandate.

It has developed around 40 products- a list of the Patents registered by the Lahore office of the organization is in the appendix. The list exhibits a lack of innovation within the organization. The organization has become a resting place for unambitious scientists who initiate projects and then never complete them, resulting in nothing concrete coming to fruition.

Budgetary Analysis

A scrutiny of its budget indicates that PCSIR is heavily reliant on the Government Budget for meeting its current expenditure, and the amount of revenue generated from its own resources is relatively meagre. Around 60 per cent of the budget is spent on employee-related expenses, like pay and pensions. Besides, PCSIR is just focusing on testing/accreditation rather than undertaking proper scientific research to produce quality scientific products. Several PSDP-funded projects have been undertaken by the organization without being required to assess the success of any such project.

PCST

PCST has been mandated to advise the federal government on all matters relating to the development of science and technology in the country and to undertake policy research, formulate policy proposals and evaluate science, technology and innovation policy, which is to be prepared by the Ministry's Policy and Coordination Wing.

Progress, Problems, and Budgetary Analysis

The scope of PCST is not clear, and it is not apparent how it contributes to the scientific advancement of the country. Since its inception in 1964, the organization has failed to carry out any meaningful research (Joint Scientific Adviser Policy, 2024). It just manages and maintains a database for scientists, engineers, and doctors, a task also undertaken by several other organizations in the country. The key positions, such as Chairperson, PCST, and various senior management positions, have been vacant since 2018. The PCST has also failed to draft its Service Rules/Regulations governing the affairs of its employees on time. During the exercise of reorganising the federal government, it was recommended that PCST be merged with either PSF or with the Policy and Coordination wing of the Ministry itself. On an in-depth analysis, it transpired that there is inertia in the organization, and it has lost its meaning over time. Most of the budget of the organization is spent on employee-related matters. However, the organization is of value because it works as a secretariat for the National Commission on Science and Technology. Therefore, it needs to be revitalized (Bajwa, 2024).



CWHR Overview

CWHR was established through a Resolution in 1964 and transferred to the Ministry of Science & Technology thereafter. It was created with a vision to provide research and development in the field of housing and works, and to help the construction sector develop affordable housing. It was also mandated to promote R&D in Civil Engineering, the construction of model structures and collaboration with national/international agencies.

Progress, Problems and Budgetary Analysis

CWHR worked well for the initial few years, but since the advent of private construction companies in Karachi, it miserably suffered. The officers of the organization started using the resources available to develop their own businesses, and as a result, the organization lost its vitality.

Besides, several key positions have remained vacant for over a decade. The last regular appointment for the post of Chairman, CWHR was made in 2011. Thereafter, no regular and full-time Chairman was appointed in the organization. CWHR has failed in fulfilling its statutory mandate. Rather than coming up with some meaningful work in the field, its focus has just been limited to the publication of research papers, conducting seminars, and holding training sessions. In the past, the organization undertook a few PSDP-funded projects, which were left in limbo and the money was mostly misappropriated by the Project Directors.

Corruption, Negligence and Incompetence have plagued the organization. All its budget is being used for salary disbursement. No research has been carried out by the organization in the last decade.

PSQCA

PSQCA is a regulatory body which was developed in 1996 with the mandate for 'Standardisation and Conformity Assessment'. The organization is expected to create standards and ensure that consumer and industrial goods are produced as per international standards for human health and safety, animal health, protection of the environment, protection of consumers and prevention of deceptive practices.

Progress, Problems and Budgetary Analysis

PSQCA started as a progressive organization which initially developed various standards for quality testing and control of different consumer products being used by millions of consumers in Pakistan. It ensures that the manufacturers are fulfilling quality standards in producing various products according to the national standards notified by the Federal Government (Ahmed, 2024). It has developed standards and communicates them to the manufacturers and other stakeholders for compliance.

Nonetheless, PSQCA operations are tainted with allegations of malpractice and corruption. It has not developed any set of financial or administrative rules so far, and billions of rupees earned as revenue remain within the organization (GOP, various issues). This revenue could have been a part of the national exchequer. So, the question is, why has no effort been made to bring the PSQCA's money under government control? The silence indicates negligence on the part of the government.

An exhaustive analysis of the organization's infrastructure depicts a dire need for reforms. The organization has only recently been listed in the SOEs governed under the State-Owned Enterprises Act 2023. Since its inception, it has worked without three Deputy Director Generals, who are supposed to be part of the board of directors of the Authority.

It is also pertinent to mention here that PSQCA has been working without a Head for the past 4 years. Many times, the charge of DG PSQCA has been with the officers of the Ministry. This is a glaring disregard for the rules and regulations of the government, as the post of DG PSQCA is an MP-1 post, and no officer in grade 20 can be assigned the subject charge. The PSQCA needs a major structural overhaul (Rizwan, 2024).

STEDEC

STEDEC was established to form a national organization for commercialising indigenous research. Another objective of STEDEC is to give market insights to organizations mandated to conduct research and development. It is expected that facilitation will help the organization to undertake viable commercial activities. STEDEC is also required to support the research-based organizations to make investments in pilot plans, and the management and marketing of products developed locally.

Progress Problems and Budgetary Analysis

STEDEC was created in 1987 as a subsidiary of PCSIR to facilitate the commercialisation of products developed by PCSIR. It is a revenue-generating organization with no allocation in the budget from the federal government. STEDEC was established to promote public sector R&D organizations for the commercialisation and marketing of their products. STADEC never worked beyond a minimal scope and never made significant efforts to expand. The key post of the organization, i.e. the Managing Director, has been vacant since 2021, and the affairs of the organization are entrusted to the officers of PCSIR on a look-after charge basis. The posts of members of the Board of Directors of STEDEC have been vacant for a long time, and immediate appointments are needed to make the organization functional. Besides, the Company ought to diversify its portfolio and expand its customer base. It should also offer commercialisation and marketing services for the private sector. The organization has been declared as a State-Owned Entity by the Central Monitoring Unit of the Finance Division, and as per the SOE Policy 2023, all SOEs must be privatised unless they hold strategic significance.

Thus, the organization must be privatised or else the Ministry needs to transform the company and convince the Federal Government that it holds strategic significance.

Thematic Analysis

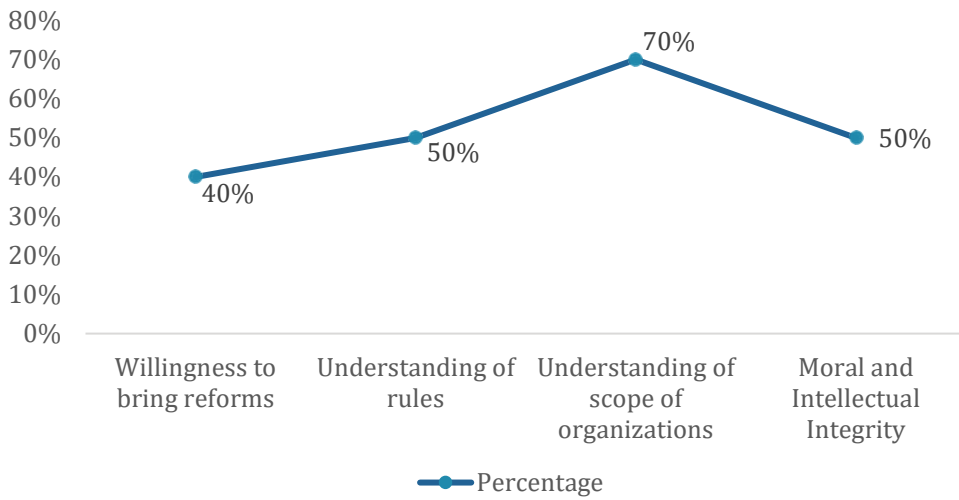
As stated earlier, this study is based on the following themes: was based on a few themes that are narrated below:

- a) Willingness of the government machinery to bring about reform in the organizations
- b) Understanding of the Rules and Regulations
- c) Understanding of the scope of organizations
- d) Intellectual and Moral Integrity of the Officers -both from the Ministry and the federal government, and the officers of the organizations under study.

Based on “Key informant Interviews “and purposive sampling, a graphical analysis of the government machinery is illustrated below:

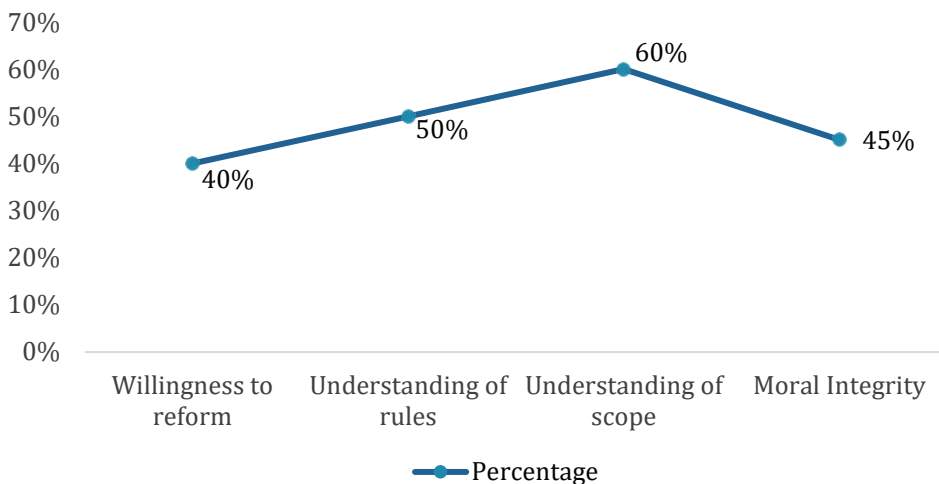
Graphical Analysis

Figure 1: Officers of the Ministry of Science and Technology



Source: Author's estimation based on around 15 interviews conducted.

Figure 2: Officers of the Organizations/PSEs



Source: Author's estimation based on around 20 interviews conducted.

Budgetary Analysis

A detailed analysis of the budgets allocated to the organizations is necessary to assess the efficiency of the organizations that have been made part of the study.

The primary objective of the study was to understand how these organizations manage the public sector expenditure and the progress of these organizations in terms of monetary transactions. Where has the Budget of these organizations gone? Ministry of S & T provides grants to several PSEs under its administrative control. The question that was the focus of the study was whether the organizations have some financial vitality, or have they become fiscally redundant over time? Table 1 shows the grants provided by the Ministry to its autonomous bodies.

Table 1: Grants of Ministry of Science and Technology to autonomous organizations (Rs. in millions)

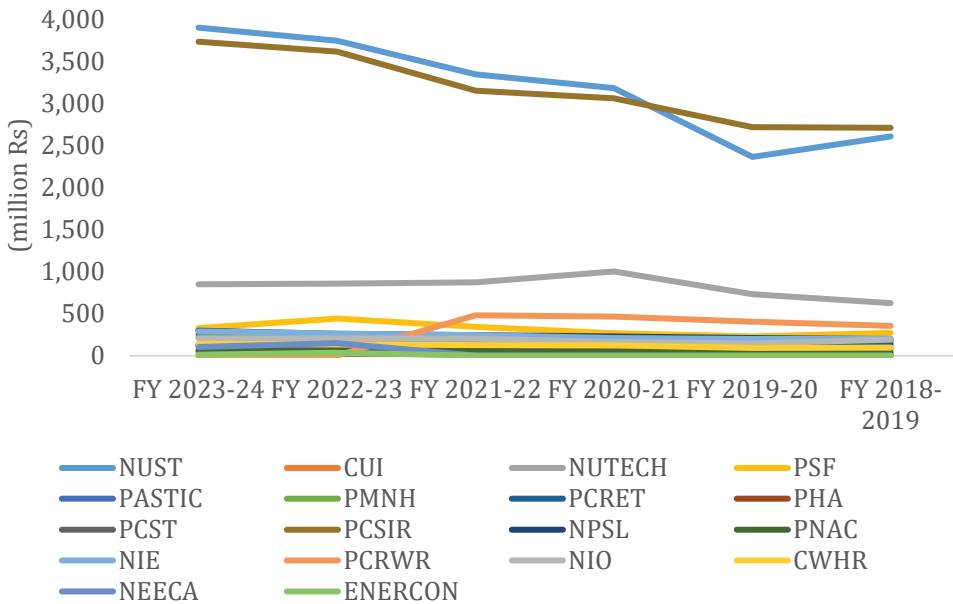
#	Autonomous Organizations	FY 2023-24		FY 2022-23		FY 2021-22		FY 2020-21		FY 2019-20		FY 2018-2019	
		Budget	Expenditure	Budget	Expenditure	Budget	Expenditure	Budget	Expenditure	Budget	Expenditure	Budget	Expenditure
1	NUST	3,900	1,837	3,744	3,744	3,344	3,344	3,180	3,180	2,363	2,363	2,605	2,605
2	CUI	300	73	152	152	109	109	120	120	0	0	0	0
3	NUTECH	850	288	855	855	871	871	1,000	1,000	731	731	624	619
4	PSF	327	139	444	444	343	343	268	268	231	230	272	272
5	PASTIC	256	118	225	225	209	209	186	186	175	175	192	192
6	PMNH	217	93	217	217	179	179	160	160	143	142	159	159
7	PCRET	132	53	124	123	124	116	122	120	112	106	135	133
8	PHA	48	18	24	23	21	20	14	14	12	11	4	4
9	PCST	126	51	95	95	87	87	83	83	85	85	79	79
10	PCSIR	3,732	1,708	3,613	3,613	3,151	3,151	3,057	3,057	2,717	2,717	2,708	2,705
11	NPSL	297	136	259	259	245	245	228	228	211	211	197	197
12	PNAC	64	25	58	58	51	51	46	46	50	50	40	39
13	NIE	289	126	262	259	244	244	209	209	200	200	203	203
14	PCRWR	0	0	0	0	480	479	464	464	403	403	356	356
15	NIO	207	77	205	205	203	196	165	160	147	147	190	186
16	CWHR	141	58	134	134	126	126	124	124	94	94	97	94
17	NEECA	105	36	150	150	0	0	0	0	0	0	0	0
18	ENERCON	11	11	37	36	0	0	0	0	0	0	0	0
Total		11,001	4,844	10,598	10,592	9,785	9,769	9,426	9,419	7,673	7,662	7,860	7,841

Source: Federal Budget documents from 2018 to 2023.

The PCSIR has received the second-highest grant (34% in FY 2023-24) in the sample period. For the last FY under study, it is close to 4 billion rupees. The CWHR's (1.3%), PCST's (1.1%) are relatively minor grant receivers.



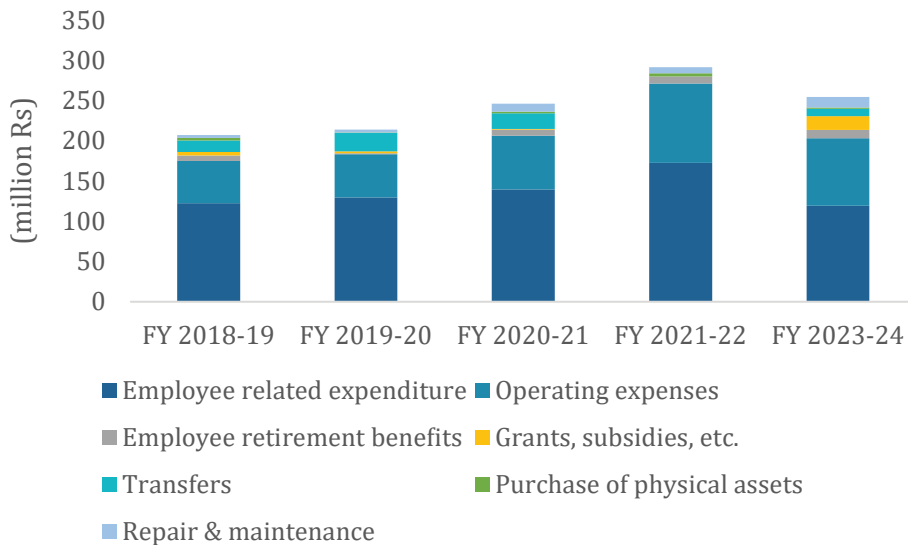
Figure 3: Ministry of Science and Technology Grants to Autonomous Organizations



Source: Federal Budget documents from 2018 to 2023.

Details of the recurrent budget of MoST are graphically presented below:

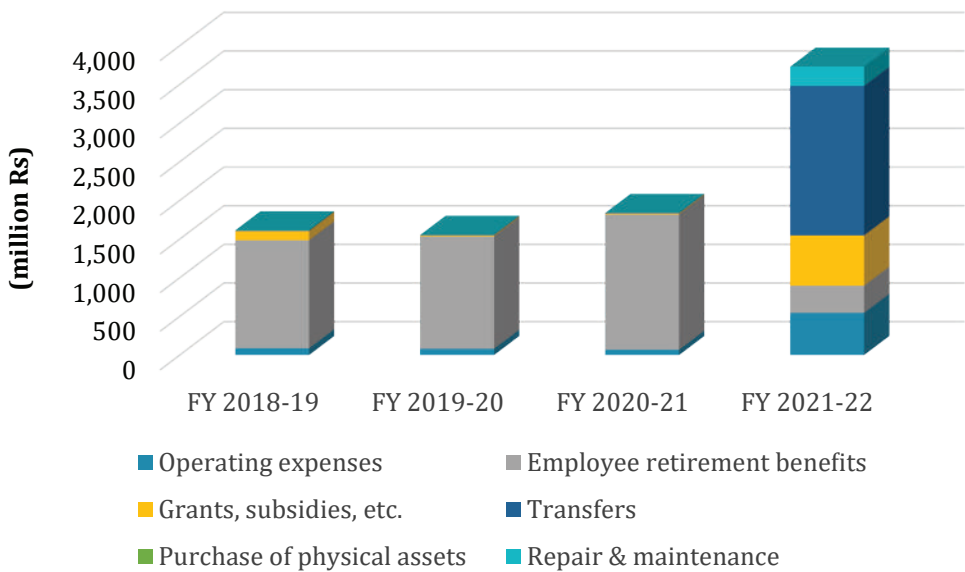
Figure 4: Ministry of Science and Technology: Secretariat's Current Expenditure Budget



Source: Federal Budget documents from 2018 to 2023.

The recurrent budget of the Ministry of S & T secretariat is increasing over time, with close to 60% of the budget going to employee-related expenditures.

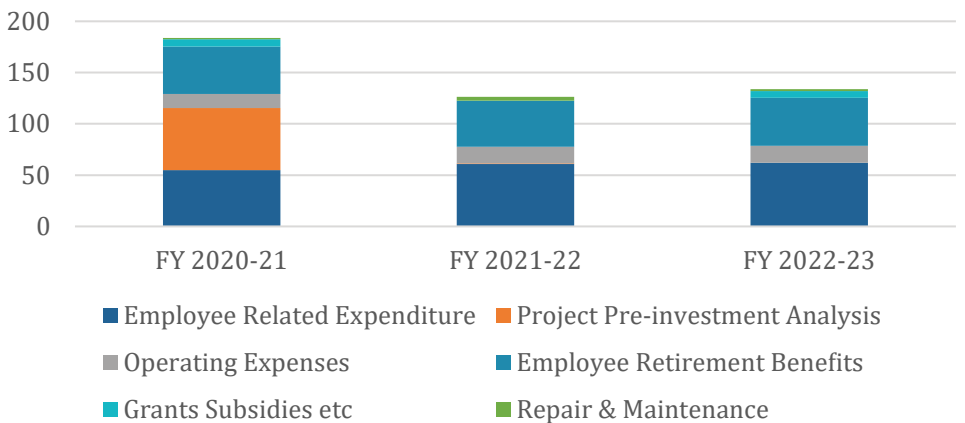
Figure 5: PCSIR Current Expenditure Budget



Source: Federal Budget documents from 2018 to 2023.

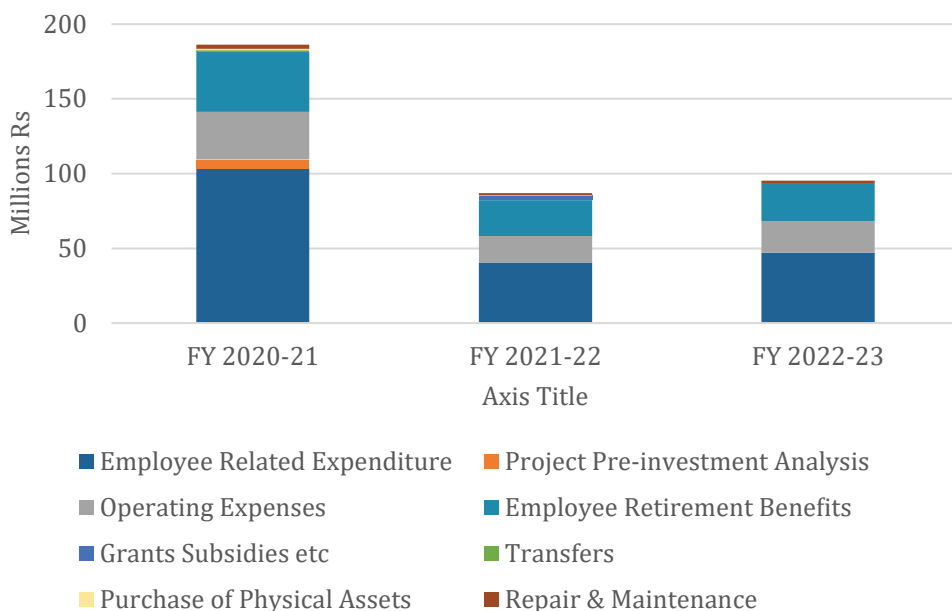
The recurrent budget of the PCSIR is on the rise. Especially in the last year, transfer payments have increased. In earlier years, the expenditure on employee related retirement benefits were significant.

Figure 6: CWHR Current Budget



Source: Federal Budget documents from 2018 to 2023.

Figure 7: PCST Current Budget



Source: Federal Budget documents from 2018 to 2023.

For PCST, the budgetary position is no different. Employee salaries and pensions take away most of the budget. The development budget follows a pattern similar to allocations for the current budget. Table 2 gives an overview of the development budget granted to the sample organizations.

PCSIR gets the highest development allocation among all the PSEs under the administrative control of the Ministry, and it is close to 36% of the total development budget of the division.

For STEDEC, the following table shows the financial position over the last five years.

Table 2: Revised PSDP Allocation 2022-23

PCSIR	35.87% (2,286.13 million Rs)
PCST	0.46% (29.321 million Rs)
PSQCA	0.65% (41.677 million Rs)

Source: Federal Budget documents from 2018 to 2023.

*Table 3: Overview of Income Statements (Actual) for
Last Five Years (Rs. millions)*

Description	2022-23	2021-22	2020-21	2019-20	2018-19
Sales	198.9	166.3	124.4	88.4	148.1
Cost of Sale	(154.3)	(135.5)	(97.7)	(75.0)	(120.2)
Gross Profit	44.6	30.7	26.7	13.4	27.9
Distribution Cost	(8.9)	(9.6)	(9.5)	(11.0)	(11.8)
Admin Expenses	(15.8)	(14.6)	(14.7)	(13.6)	(16.3)
Other Expenses	(1.2)	(0.5)	(0.3)	(0.1)	(0.2)
Other Income	2.2	2.3	2.1	2.1	2.3
Profit/ (Loss) from Operations	20.7	8.3	4.3	(9.2)	1.9
Financial Cost	(0.21)	(0.2)	(1.1)	(1.3)	(0.9)
Profit / (Loss) before taxation	20.5	8.1	3.2	(10.6)	1.0
Taxation	1.2	(2.3)	(1.6)	(1.4)	(1.9)
Profit / (Loss) after taxation	21.7	5.8	1.6	(12.0)	(0.9)

Source: Federal Budget documents from 2018 to 2023.

The company has been able to rebound from negative profit after taxation in the 2018-2020 period. In the outgoing completed fiscal year (FY 2022-23), the company's profit was 21.7 million (11% of the sales).

PSQCA doesn't get any grant from the government other than a few development schemes, but it manages to earn a tremendous amount of money. Audit Authorities have repeatedly pointed out the lack of accountability on the part of the organization. The organization has yet to frame its financial rules, a shortcoming requiring redressal. As per the record available from the AGP Office, the organization earned around 2 billion rupees, netting off all expenditures. As per the TSA Rules 2020 and subsequently framed Cash Management rules and the TSA Rules 2024, the money earned by the PSE has to be credited to the Federal Consolidated Fund, but the organization has consistently avoided doing this.



6. CONCLUSION

The study has been conducted to gain an insight into the governance structure of Pakistan's federal government. Specifically, the study seeks to understand the workings of the Ministry and its autonomous bodies. The two conclusions of the study are:

Lack of Vision

The Ministry of Science and Technology and the organizations working under its control lack creativity and have lost an adequate vision. This needs to change. Schedule 3 to the Rules of Business, 1973 mandates the Ministry with an advanced role in the scientific and technological advancement of the country. The Ministry needs to achieve this objective. The foremost step in this direction would be to understand the potential of the organizations working under its control.

Political Interference and Lack of Intellectual Integrity

Time and again, offering employment in the Ministry and the organizations under its control, as elsewhere in the government, has served as an opportunity to appease political constituents and personal networks. This resulted in the loss of merit-based inductions and, as a result, the Ministry suffered a great deal. The federal government shall make sure that this type of recruitment is avoided. This is where the governance primarily suffers. It is only through a technically and morally sound civil/public service that the goal of technological transformation can be achieved.

7. RECOMMENDATIONS

An exhaustive study of the Ministry of Science and Technology and the sample organizations under its control has been undertaken using key-informant interviews. The following are the recommendations of the study:

Amendments in the Rules of Business, 1973

As per the recommendations of the 37 meetings carried out by the Institutional Reforms Cell (IRC) headed by Ishrat Husain, the 16 organizations of the Ministry need to be placed in Schedule 3(A) of the Rules of Business.

The Cabinet Division has not amended Schedule 3 of the Rules of Business despite receiving approvals from the federal government. The lists that show the executive departments and the autonomous bodies, as provided by the Institutional Reform Cell, do not have any PSE from the Ministry of Science and Technology. Schedule 2 to the Rules of Business, 1973, describes the PSEs as being a part of the Ministry, but there is a certain ambiguity. There needs to be a precise classification of the PSEs under the Ministry of S & T as autonomous bodies or as executive departments of the Ministry (Anjum, 2024).

PCSIR and PSQCA ought to be made part of the Schedule that has autonomous bodies of the federal government. PCST may be declared as an executive department of the Ministry with a revised and revitalized role.

Redistribution of Work within the Ministry

The work distribution within the Ministry is unjust, to say the least. There is no need for a group of advisers at the Ministry when similar functions fall under the domain of organizations working under the Ministry (Ahmad, 2024). Thus, there is certain duplication of work that needs to be reassessed comprehensively. There must be a dedicated Planning Cell at the Ministry manned by the officers of the Planning Commission and assisted by civil servants. The many wings created in the Ministry tend to have unnecessary positions for technocrats who mostly perform duties that do not match their academic qualifications and expertise. The lack of effective coordination within the Ministry magnifies the problems of the already dormant organizations working under the control of the Ministry.

Setting up Attainable Goals

The Ministry lacks vision (Bajwa, 2024). It needs to set a particular goal and then determine how to achieve it. The prime goal of the Ministry of Science and Technology should be the growth of the country in the field of Science and Technology. With several research organizations working under its domain, the Ministry shall be capable of producing quality products that can substitute imports. The business assigned to it under Schedule 2 to the Rules of Business is clear but needs to be understood well in the Ministry. The Ministry shall focus on goal achievement rather than signing up MOUs that linger on for ages and undertaking projects that go on for ages (Bajwa, 2024).

Categorisation of PSEs under Section 36 of the PFM Act 2019

As per Section 36 of the PFM Act 2019, it is the statutory responsibility of the Finance Division to categorise the Public Entities of the federal government as either Research Organizations, Business enterprises or Regulatory bodies. This categorisation has not been done so far (Ali, 2024). Without this precise categorisation, the organizations will continue working against their mandate, as is the case with PCSIR. The categorisation will also bring PSQCA under some control of the government, and the money that the organization retains itself will be credited to the FCF. (Chandna, 2024) (The organization receives 13 per cent of the total revenue from the 165 products accredited/certified by it).

Formulation of Adequate Service Rules/ Regulations of the PSEs

The organizations need to develop a set of rules or regulations as mandated by their respective acts to clarify their administrative processes. The absence of approved Rules/Regulations results in adverse outcomes. For instance, there have been no recruitments in PCSIR for many years. The same is the case with PSQCA.

Appointment of Heads of Organisations

The PSQCA has been without a Director General for the past 5 years. The PCST has been working without a chairman since 2017. STEDEC also has a vacant position of the Director General.

This has led to a certain inertia and inefficiency and has affected the morale of the organizations. Officers assigned to the 'look after' charge have gone beyond their authority, and there is financial and moral corruption that seems rampant in almost all the organizations working under the ministry. Given this scenario, nothing concrete can be achieved by the Ministry and the organization under its control.



Triple Helix Model and Clarity of Purpose

The Science and Technology Policy drafted by the Ministry provides some vision.

Collaboration between Academia, Industry and Research organizations has been termed the Triple Helix Model, where Universities will come up with innovative ideas, and research organizations will help them create quality products, and the industry will disseminate and buy out the products developed by the research organizations. This was a convenient and efficient approach and will provide the government with clarity on where to invest. The government should keep itself directly involved in the domain of basic sciences only, and for the Applied Sciences, the model of triple helix should come into play with an adequate financial involvement of the government. This is important so that the government can get a return on its investments and the economic development can be attained (Williams, 2024).

Winding up of CWHR and Equity-based Investments in PCSIR/PCST

The Council for Housing and Works Research has lost its meaning over time. Based on stakeholder consultations, we suggest that, as per the present study, the recommendations of the Institutional Reforms Cell should be implemented, and the organization ought to be wound up.

PCSIR can be better managed if an equity-based investment is explored for the production of quality goods (Hussain, 2024). Moreover, the private sector should have some role in managing the affairs of the PCSIR. This is not easy, as it is a humongous organization with 17 laboratories and several institutes. Still, some Public-Private partnerships in their projects can give good results and can end the inertia and lack of creativity that have plagued the organization. PCSIR has come up with insignificant products like creams to enhance the skin tone, some pesticides, etc. This was not the objective behind the creation of an entity of such magnitude and with assets worth billions in all the major cities of the country.

Recommendations for STEDEC

The State-Owned Enterprises Policy 2023 is clear enough, and STEDEC will need to be retained as it is a monopoly service provider (GOP, 2023), but its role should be redefined. The Ministry is already working on the transformation of STEDEC into a novel institute.



Recommendations for PSQCA

The PSQCA shall be made part of the listed statutory state-owned entities and shall be restructured as per the State-Owned Enterprises Policy 2023. The PSQCA shall remit its revenues to the TSA. They should have adequate rules followed by regulations so that the quality of their human resources is improved and there is some transparency in their operations. PSQCA shall have a proper enforcement directorate that can cease the production of substandard public goods to ensure public health safety as per international norms.

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APPENDICES

APPENDIX - I: The Questionnaire

1. What is the mandate of the organization?
2. How is the budget allocated, quarter-wise, in the organization?
Revenue Generation /Expenditure Year-wise.
3. How does the organization utilise its budget? Do they invest in any scheme?
4. How many projects are being carried out as per the mandate of the organization?
5. How do the PSDP projects of the organization contribute to the overall goals of the organization?
6. Does the organization track the performance of each project in terms of goal achievement and financial viability?
7. Study of the last five years' performance (please attach any supporting documents).
8. Does the organization observe financial prudence? Does it cover its expenditures within the budgetary allocations? What are the plans of the organization for next year?
9. What is the year-wise approved strength / filled / vacant strength of the organization?
10. Treasury Single Account Rules 2020 have been repealed. Why was the subject decision taken? How are the new Rules different from the TSA Rules 2020?
11. What is the statutory responsibility of the Finance Division as per Chapter 36 of the PFM Act 2019 concerning the categorisation of the public entities?
12. To make it more straightforward, the Finance Division was supposed to categorise the public entities or, as it were, the autonomous bodies/subordinate offices/executive departments into different

categories. This would have made the management of TSA practical. Not all organizations can be made part of the TSA. Still, those that function as Regulatory Bodies and acquire trillions in the name of the government were supposed to credit their earnings into Non-Food Account 1. No such categorisation has been made.

13. Is the statement given above true?
14. Our study has elucidated some flaws in financial governance that have led to a colossal loss to the exchequer. For example, an organization under the Ministry of Science and Technology, named Pakistan Standards and Quality Control Authority, has a budget in trillions, but they don't deposit anything in the FCF.
15. Should there not be a mechanism to change this situation note above?
16. TSA Rules 2024 ordain that Ministries must submit a projection of cash inflows and outflows. How far has it been successful, and does it include the subordinate offices and attached departments of the Ministry, too?
17. Has the Cabinet Division made necessary amendments in the Rules of Business and defined the executive departments, attached departments, and subordinate offices?
18. If not, then how does the TSA Regime work?

APPENDIX - II: List of Patents Developed by PCSIR

Sr. No.	Product Name	Material / Features for Patents	Unit/Lab
1	Kiln furniture	China Clay, Grog, Aluminum Oxide/ Bauxite.	LLC
2	Enhancement of methane gas production by using various additives	Wastes and additives (Enhancement by Urea, Molasses, Additives, Minerals)	LLC
3	Micro feeder for wheat flour fortification	Wheat Flour Fortification (WFF) with iron and folic acid is an effective and sustainable intervention to reduce the prevalence of anemia among the population	LLC
Solar Energy			
4	Spray pyrolysis	Both pulse and continuous deposition methods are applicable—sensors, heat-absorbent materials, Conductive films, Optoelectronic device fabrication, etc.	LLC
5	Transparent Conductive Oxide (TCO)	<u>Composition</u> : Fluorine doped Tin Oxide; <u>Substrate</u> : Soda lime glass; Dimensions: 1"x1", 1"x3", 1"x2" ; <u>Thickness</u> : 1mm ; <u>Transmission</u> : > 90 % ; <u>Sheet resistance</u> : < 25 Ω	LLC
6	Hotplate	<u>Temperature</u> : 0-1000oC, Dimensions: 10"x10", Programmable ramp rate	LLC
7	Bio pesticides: eco-friendly approach to control pests	Bio pesticides are certain types of pesticides derived from natural materials such as animals, plants, bacteria, and certain minerals. For example, Neem and Eucalyptus plant leaves, stems, etc. have pesticide applications and are considered as biochemical biopesticides.	LLC
8	Biodegradable Eco-Plastic from Bio-waste for the Food Packing Industry	Hydrolysis, Addition of Plasticiser, Optimisation	LLC
9	Natural pink food colour	A triplex hortensis	LLC
10	Protein hydrolysate	protein hydrolysate, plywood blocks	LLC
11	Production of Polyhydroxybutyrate (PHB) Biodegradable Plastic	Enterobacter aerogenes, Bacillus thuringiensis	LLC
12	Natural poultry feed additive	formulation of beneficial microbes (Saccharomyces cerevisiae, Bacillus subtilis and Enterococcus faecium), Bentonite	LLC
13	Nitrogen-fixing biofertilizer	nitrogen-fixing bacteria	LLC



Sr. No.	Product Name	Material / Features for Patents	Unit/ Lab
Solar Energy			
14	Bio Coal Fuel for Boilers and Power Plant	Coal, Biomass	FRC
15	Hybrid fuel (a clean coal technology)	Charcoal	FRC
16	Prototype Solar Oriented Dehydrator	It consists of a hemi-cylindrical walk-in type metallic frame structure covered with UV-stabilized semi-transparent polythene sheet. Two chimneys are assembled on the top of the dehydrator to remove moisture and maintain humidity at a preset level inside the Dehydrator	HL
17	BCAA (Nutritional Supplement Enriched with Branched Chain Amino Acids)	Milk, Sugar, Soy hydrolysate, Leucine, Isoleucine, Valine, CMC, Flavour (Pineapple)	KLC
18	Nanocrystal line cellulose	Karka (Wild Grass, Nano Crystalline Cellulose)	KLC
19	Phytoremediation is a green technology for industrial wastewater treatment.	Phytovolatilization, Phytostabilisation, Pollutant, Organic Compounds, Phytostimulation, Rhizofiltration	LLC

Source: Authors' computations.



GOVERNING PUBLIC SECTOR PROJECTS IN GILGIT-BALTISTAN: A MULTI-STAKEHOLDER ANALYSIS

Asadullah Khan¹ and Faisal Rana²

ABSTRACT

The paper provides actionable insights for the successful completion of government-funded and implemented projects. Specifically, the study suggests parameters to enhance strategic goal achievement and project outcomes. It highlights the importance of involving all stakeholders, including end-users and contractors, in decision-making processes to enhance project planning, execution, and completion. By addressing gaps and implementing strategies such as stakeholder engagement and robust governance frameworks, public sector development programs (PSDPs) can achieve superior outcomes, optimise returns and better serve the public good.

This study proposes a stakeholder management framework that emphasises the importance of understanding the unique context of each project, encompassing economic, social, political, ecological, and institutional dimensions. Effective engagement strategies include information sharing, consultation, provision of incentives, and fostering partnerships to build cooperation, mitigate risks, and manage resistance. Continuous monitoring and evaluation of these strategies, with adaptive adjustments as necessary, are critical to maintaining their effectiveness and achieving long-term project success.

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1. INTRODUCTION

Background and Context of the Study

Since the 20th century, organisations have employed project management approaches to achieve their goals. While projects are initiated to succeed, many face governance challenges that lead to failure, often due to issues such as poor planning, inadequate stakeholder engagement, and weak oversight. Project evaluations are being expanded to include their ability to achieve sustained performance in meeting operating goals over considerable periods. Despite significant interest in improving the performance of large, multi-stakeholder projects, the theories and models of project management have not adequately addressed the special needs of mega-projects. Specifically, frameworks and empirical reports that focus on the governance of these projects are missing (Khan et al., 2021). A complex set of internal and external forces influences public sector projects. Hence, managing projects through this mix of dynamic factors requires a lot from the project team and stakeholders. Developing more detailed and empirically grounded understandings will improve project outcomes and help the organisation and executing agencies monitor and evaluate outcomes better.

Gilgit-Baltistan (GB) is characterised by its rugged mountainous terrain, harsh climatic conditions, and socio-political marginalisation. GB is strategically important due to its location as part of the China-Pakistan Economic Corridor (CPEC); nevertheless, it remains underrepresented in national decision-making processes. The constitutional status of GB has further complicated the governance issues, leaving its inhabitants with limited political and economic autonomy. Due to the region's geographical isolation, the cost of materials and services has increased, weakening the enforcement of transparent procurement practices. In GB, stakeholder conflicts arise from competing interests among local communities, government agencies, and external investors. These conflicts are exacerbated by the region's socio-political dynamics, in which local communities often feel excluded from the decision-making processes that directly impact their livelihoods. GB's ambiguous constitutional status has left it in a governance limbo; the lack of clarity has created power struggles and inefficiencies in project management practices. The mistrust and resistance from the local population have added to the challenges.

Given the region's isolation and vulnerability, the organisations operating in Gilgit-Baltistan are not adequately aligned with the fundamental needs of its people. The failure to develop sound stakeholder management within public sector organisations is also a primary reason for poor project performance. Hence, the issues of project governance, stakeholder engagement, and project management are interlinked. It is also important to note that the phenomenon of globalisation has played a significant role not only in reshaping traditional public sector organisations but also in transforming local cultures. In this context, there is a need for a better understanding of the governance of government-sponsored project management practices. McGrath & Whitty (2015) have described project governance (PG) as “the system by which a project is governed, directed, and controlled. The impact of stakeholder management on the initiation and implementation process of the project is underexplored in the literature. Project stakeholder management is *“constant communication with stakeholders to understand their requirements and hopes, addressing problems when they occur, handling conflicting interests, nurturing suitable stakeholder engagement in project decisions and activities”* (PMI, 2017).

The implementation of PSDP projects in Gilgit-Baltistan requires effective multi-stakeholder engagement. However, to the best of our knowledge, the absence of a well-defined framework presents significant challenges, which ultimately affect the smooth implementation and desired outcomes of PSDP projects. This study addresses the above-mentioned research gap.

Purpose and Scope of the Study

Public sector projects make a significant contribution to the national and regional economy. However, in GB, these projects are often poorly managed despite adherence to existing governance structures. PSDPs in GB are characterised by extended life cycles, cost overruns, involvement of multiple stakeholders, and inherent uncertainties, which collectively pose significant challenges to effective planning, execution, and management. The context of GB introduces additional complexities, including numerous stakeholders, intricate processes, limited resources and skills, and bureaucratic inefficiencies. These factors mirror broader project management challenges faced across Pakistan but are particularly pronounced in GB. Key reasons for the suboptimal performance of PSDPs include ineffective governance and conflicts of interest among stakeholders such as consultants, project directors, contractors, and sponsoring agencies.

Relevant research highlights critical shortcomings in planning, stakeholder management, and project governance within PSDPs. While project management has been a focus of research in Pakistan, there remains a paucity of studies specifically addressing project governance and stakeholder management in PSDPs. This study seeks to address this gap by contributing to the enhancement of project performance.

The main research questions guiding this study are:

1. What are the current practices of project governance and stakeholder management in public sector development projects in GB?
2. What are the key challenges faced by a project's executioners in governing the projects and managing stakeholders?

By addressing these questions, the study aims to propose a stakeholder management and engagement framework that improves the performance of PSDPs, offering actionable insights for policymakers and project professionals.

2. LITERATURE REVIEW

Literature suggests that public sector development projects are not performing well in terms of cost, schedule, and deliverable quality due to the structural complexity and interdependence of different elements. Researchers and professional organisations like the Project Management Institute have put together an effort to improve the performance of governmental projects by developing the “Government Extension to the PMBOK® Guide”, which is tailored for government projects (Patanakul et al., 2016). Müller et al. (2017) have proposed standardised approaches to project governance for the successful completion of projects and the project-based part of the organisations.

Project Governance

Müller & Turner (2017) have defined project governance as a multi-level phenomenon that encompasses the governance of the parent organisation, any suppliers or contractors, and the project itself, as well as the relationship between them. According to them, project governance explains the interaction between project participants, and the mechanisms adopted can heavily



influence the engagement of the stakeholders and their trust in the project. Project governance is considered a significant component of the project management framework and is a vital term used frequently in the literature on project management (Khan et al., 2021). McGrath & Whitty (2015) have discussed project's governance with reference to the systems approach, where the authors consider it as a comprehensive system by which any particular project is governed, directed, and controlled with a strategic vision. Bekker & Steyn (2009) argue that the concept of project governance refers to systematically connected management systems, including systematic relationships, structures, protocols, and policies, that provide a decision-making framework for executing a project to achieve strategic goals. Ismail et al. (2019) have emphasised that project governance and stakeholder management have not been widely discussed in Pakistan-specific studies. Their study has revealed that the main reasons for the disappointing performance of governmental projects in Pakistan are ineffective stakeholder engagement and weak project governance, among other factors. Waris et al. (2022) have recommended an integrated approach to project governance and stakeholder management for public sector infrastructural projects, emphasising the importance of comprehending the project governance mechanism to identify issues in project governance practices and ensure the successful completion of projects. The poor performance of the infrastructure projects has been attributed to multiple stakeholders, a lack of clear project governance structure, organisational structure, timelines, and communication issues with competing interests (Khan et al., 2021). While exploring the deficiencies in project governance of the infrastructure development program in Gilgit, Waris et al. (2017) have suggested a mechanism for project governance to set the vision, project priorities, planning configuration, decision-making, and define the roles and responsibilities of all stakeholders.

Stakeholder Management

Stakeholders are organisations or groups of individuals who have an interest in the project and benefit from it. Therefore, stakeholder engagement is a process of identifying the interests of stakeholders, engaging them with the project, and addressing their needs to satisfy their requirements. Identifying stakeholders' interests is essential for estimating their level of involvement in the project. Conversely, engaging stakeholders in the project enhances decision-making processes, indicating that stakeholder involvement is crucial for the project's success (Saad et al., 2022). During the project life cycle, the lack of effective stakeholder engagement, particularly at the early stages of implementation and planning, typically hurts the expected performance of

projects. The lack of contextual knowledge from the stakeholders, as well as the lack of their support in the field, necessitates effective stakeholder engagement (Bahadorestani et al., 2020). There are five levels of stakeholder involvement: 1) information, 2) consultation, 3) collaboration, 4) empowerment, and 5) co-decision, which should be a priority for implementation (Luyet et al., 2012). Information is used to explain the project to stakeholders. The consultation presents the project to stakeholders, collects their suggestions, and may incorporate stakeholder input into the decision-making process. Collaboration refers to a process of gathering suggestions and then making decisions that account for the input of stakeholders. The co-decision involves cooperating with a stakeholder to reach an agreement on solutions and their implementation.

The empowerment delegates decision-making regarding project development and execution to a stakeholder. Malik et al. (2023) investigated the impact of communication factors and stakeholder engagement on renewable energy projects in Pakistan, finding that effective stakeholder engagement increases the success rate of energy-related projects in the country. Similarly, Saad et al. (2022) investigated the role of awareness in strengthening the relationship between stakeholder management and project success in Pakistan's construction industry. It has been found that effective stakeholder management is crucial for enhancing project success rates. De found a significant impact of stakeholder management influence on trust in a project. Similarly, Nguyen et al. (2021) found a positive impact of Stakeholder management on qualitative project performance. Pedrini & Ferri (2019) has systematically reviewed the existing literature related to stakeholders and concluded that, although the concept of stakeholders has been around for a long time, the development of literature is still in its early stages. The number of published articles is still limited; therefore, it calls for a growing commitment from academics.

In Pakistan, the project took 130% extra time to complete due to the inadequate planning process of the government machinery (Ahmed & bin Mohamad, 2014). The key players involved in the delay of infrastructure projects are the owners, consultants, and contractors. There are nine major factors for delay in infrastructure projects, i.e., "financial, owner, contractor, consultant, manpower and resources, project, managerial, rules and regulations, and the environment". For effective performance and success, the initial approval process of the infrastructure projects is vital, and many researchers have documented its importance (Hellström et al., 2013). In the early stages, the plans and formal contracts to govern the actions and

relationships of the parties are not involved, but it is still considered that some governing processes are at play (Hellström et al., 2013). These problems can be tackled through a suitable project governance framework. Public sector development projects in Pakistan are not performing well due to a lack of vision, poor planning and governance, unclear scope, ambiguous roles and responsibilities, a dearth of clear goals, miscommunications, and procurement leakages.

According to IMF (2023) There are significant shortcomings in the planning and execution of public infrastructure projects in Pakistan, particularly due to the absence of a medium-term planning document that connects economic development goals with infrastructure initiatives. The existing Vision 2025 document, being outdated, fails to identify key investment projects, their associated costs, and the contributions they make to developmental objectives. In contrast, the Planning Commission of Pakistan has implemented a structured approach through its 2017-2030 Plan, effectively managing various projects. The report advocates for a strengthened appraisal process for larger projects, emphasising the need for comprehensive feasibility studies and public access to ex-post reviews to enhance project quality. It highlights that unrealistically large ongoing projects within the PSDP lead to significant delays and inflated costs, with estimates indicating project completion times can increase by two to three times the original projections. To improve future planning, the report recommends removing low-priority projects and enhancing procurement and monitoring practices.

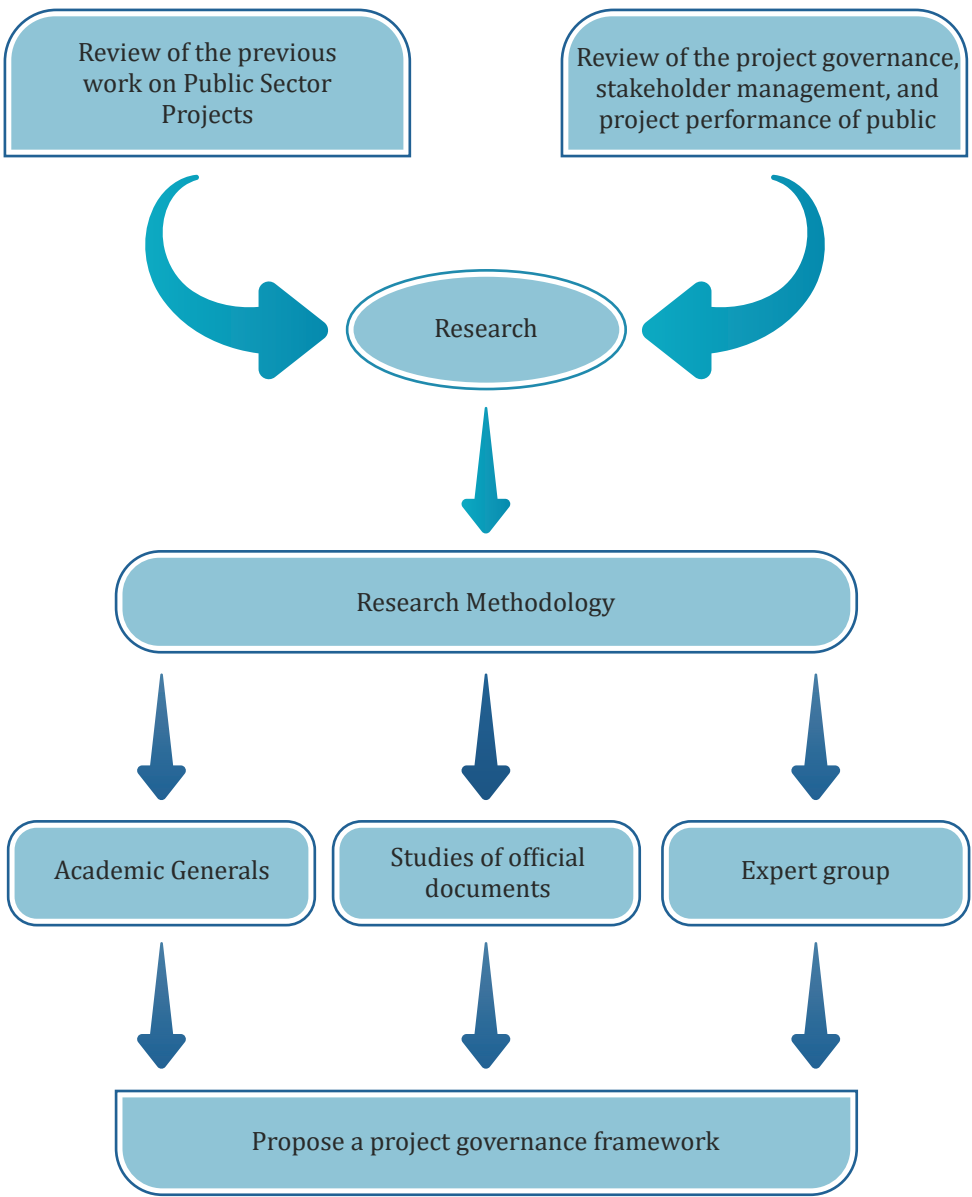
3. RESEARCH METHODOLOGY

This study employs mixed methods. Both the primary and secondary data have been collected for projects related to the power sector and infrastructure projects in Gilgit-Baltistan. An interpretative approach has been used, which offers an inclusive summary of the topic (Grant & Booth, 2009). Detailed interviews have been conducted with project managers and different stakeholders to capture experiences, perceptions, and challenges faced during the execution of PSDP-funded projects in Gilgit-Baltistan. The discussions revolve around exploring themes related to project governance, stakeholder management, and project performance.

Focus Group Discussions were also conducted with stakeholders. Focus Group Discussion (FGDs) play an important role in providing a platform for diverse audiences to engage in open and structured discussions. It offers an environment for participants to share perspectives, experiences, and insights. Purposive sampling was employed to select participants for the FGDs, ensuring representation from a diverse array of stakeholders, including government officials, politicians, community leaders, and project managers. This strategic approach has been instrumental in capturing a wide range of perspectives and experiences, which are essential for addressing the multifaceted nature of project governance and stakeholder management. There were 30 participants, divided into six diverse groups, which included government officials, politicians, community leaders, project managers, and other stakeholders involved in PSDP projects. The topics discussed during the session centred on project governance challenges, stakeholder management/expectations, and strategies for enhancing project governance and stakeholder management. The six groups facilitated rich and diverse discussions, fostering the exchange of varied viewpoints. This grouping not only deepened the analysis but also enhanced the reliability and generalizability of the findings, providing a strong foundation for actionable insights. Moderators have facilitated a balanced discussion and guided participants to remain focused on predetermined topics. FGDs facilitated a thematic analysis to extract key insights and recurrent themes that contribute to the overall understanding of the challenges faced by PSDP projects in Gilgit-Baltistan.

Figure 1 below demonstrates the methodological framework of the study.

Figure 1: Methodological Framework



Source: Authors' computations.

4. FINDINGS AND DISCUSSION

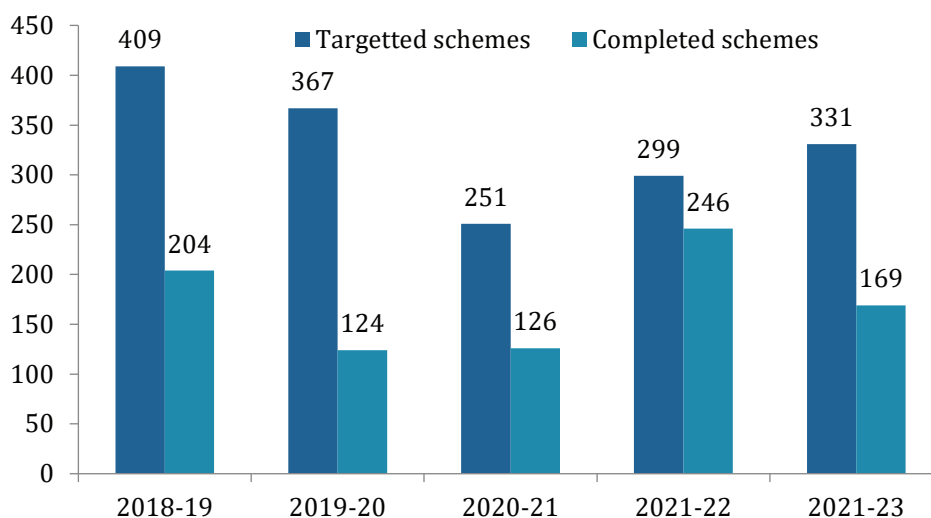
Table 1 presents the summarised findings of the literature review of the last five years. It is evident from the table that researchers have not extensively discussed the themes of project governance and stakeholder management in studies related to Pakistan, in general, and in Gilgit-Baltistan, in particular.

Table 1: Summarised Findings of the Literature

Year	Studies (GB, Pakistan focused)	Stakeholder management	Project performance	Project governance
2023	(Malik et al., 2023)	✓	×	×
2023	(Nisar & Asif, 2023)	✓	×	✓
2022	(Ilyas et al., 2022)	✓	×	×
2022	(Saad et al., 2022)	✓	×	×
2021	(Khan et al., 2021)	✓	✓	✓
2021	(Ali et al., 2021)	×	✓	×
2020	(Ali et al., 2020)	×	✓	×
2019	(Khan et al., 2019)	✓	✓	✓
2019	(Memon et al., 2019)	×	✓	×

Source: Government of GB. (various issues). Annual reviews of ADPs.

Figure 2: Last Five Year's Data (ADP)



Source: Government of GB. (various issues). Annual reviews of ADPs.

Figure 2 shows data for the last five years, indicating the schemes targeted to be completed in the Annual Development Plan, as well as the completed schemes at the close of the Financial Year. Figure 2 illustrates that at the commencement of the 2018-19 financial year, 409 schemes were slated for completion by year-end; however, only 204 projects were completed. Examining the data over the last five years reveals that, on average, only 50% of the targeted schemes are completed. Achieving a completion rate of only 50% has far-reaching implications, particularly in terms of time overrun, which adversely impacts both the project cost and the quality of work. The gap in projected and actual completion rates suggests underlying issues in project governance, execution, and stakeholder management. These challenges have led to deviations from the approved scope, cost estimates, execution time frames, and quality standards.

Table 2 shows 15 major projects in GB, sponsored under the PSDP. An in-depth examination was conducted to identify the underlying factors contributing to delays, revisions, poor quality, and outright failures of these initiatives. After the discussion with the Project Management Unit (PMU) teams and evaluating the official documents, we are of the view that all projects have undergone revisions, resulting in an extension of the execution timeframe. We observed that in the context of GB, 95% of PSDP-sponsored projects get revised. The region's unique geographical characteristics present distinct challenges when it comes to executing development initiatives compared to more accessible areas in the country. In GB, the submission of PC-IV (which serves as a sort of project completion report) for projects is only procedural. The PC-IV of only those projects is submitted to the concerned steering committee, where maintenance and recurrent expenditure are involved. However, this process lacks a critical component — a comprehensive impact assessment and evaluation of the project outcomes. For the PSDP-funded projects, there is no established practice to conduct in-depth impact and evaluation studies, post completion (Shah, 2023; Farman et al., 2023).

Table 2: PSDP Projects in GB that Faced Challenge

S.#	Name of scheme	Inception and completion year	Actual Completion Date	Actual cost (Millions)	Revised Cost (Millions)	Status of schemes with Reasons for Revision and delay
1	3.2 MW HPP at Ba-toteNomal Gilgit. (M)	2017-2020	2024	384.100	628.771	A detailed feasibility study was not conducted, so the quantum of work increased as per the site requirement. Tender cost was on the higher side. Dollar parity set for the purchase of the Turbine Generator (TG) changed, resulting in an escalated cost due to inflation. Funds were not released as per financial phasing (Governance Issue)
2	Const. of 3.5 MW HPP Hamaran-Bilchar-Bagrote (Revised)	2014-2017	2024	774.338	999.000	Detailed feasibility of the project was not conducted, which is why the quantum of work increased as per site requirements. Tender cost was on the higher side. Dollar parity set for the purchase of the TG changed, and the cost escalated due to inflation.



S.#	Name of scheme	Inception and completion year	Actual Completion Date	Actual cost (Millions)	Revised Cost (Millions)	Status of schemes with Reasons for Revision and delay
						Funds were not released as per financial phasing. Site selection was wrong. A new site has been identified after a four-year lapse, causing delays and cost escalation.
3	Const. of 06 MW HPP Kargah Gilgit (Revised)	2017-2020	2024		999.400	Detailed feasibility of the project was not conducted, which is why the quantum of work increased as per site requirements. Tender cost was on the higher side. Dollar parity for the purchase of the TG set changed, and costs also escalated due to inflation. Funds were not released as per the financial phasing. Site selection was wrong. A new site was identified after four years, resulting in a project delay.



S.#	Name of scheme	Inception and completion year	Actual Completion Date	Actual cost (Millions)	Revised Cost (Millions)	Status of schemes with Reasons for Revision and delay
						Land compensation issues and litigation. (Governance and Stakeholder Management issue)
4	Const. of 0.5 MW HPP Chamog-arh Gilgit. (Revised)	2017-2020	2024	253.632	378.916	Proper feasibility was not conducted at the initial stage, which is why the cost increased as per site requirements. (Governance and Stakeholder Management issue).
5	01 MW HPP at Manikal Darel, Diamer	2012-2015	2024	195.780	442.289	Site issues and litigation due to concerns of the local community. (Lack of Stakeholder Management and engagement)
6	Const. of 0.5 MW Hydel Power Project at Khinner.	2008-2010	2024	78.000		Site issues and litigation in the court of law. People are very much concerned regarding the disaster in case the channel gets damaged. (Lack of Stakeholder Management and engagement)

S.#	Name of scheme	Inception and completion year	Actual Completion Date	Actual cost (Millions)	Revised Cost (Millions)	Status of schemes with Reasons for Revision and delay
7	20 MW Hydro Project Hanzal Gilgit	2021-24	2028	12921.66	20000.000	Capacity Enhancement from 20 MW to 40 MW that is why cost and time revision is required. (Governance and Stakeholder Management issue)
8	Establishment of Poly Tech Institute at Skardu	2018-21	2024	601.000	978.93	BoQ increased and price escalated on account of equipment, resulting in a revision of the project's cost and execution time frame. (Governance)
9	Establishment of Regional Grids in GB Ph-I	2019-22	2026	5000.000	9000.000	The outdated feasibility study conducted in 2010 resulted in a significant underestimation of the equipment costs. As the project began, equipment prices soared, necessitating a thorough revision of the project plan. (Governance Issue)



S.#	Name of scheme	Inception and completion year	Actual Completion Date	Actual cost (Millions)	Revised Cost (Millions)	Status of schemes with Reasons for Revision and delay
10	Sanitary and Sewerage System in Gilgit city (Revised)	2019-22	2027	3363.000	4797.000	After approval from CDWP, the project remained abandoned due to a communication gap between the federal government and the Gilgit Development Authority. The PMU was established after a lapse of 19 months. The bidding process has taken 8 months due to the application of contractors to redress the grievances before the Grievance Redressal Committee. The bidding cost escalated 39% beyond the cost approved in PC-I, due to a delay in the execution of civil works. The revised PC-I was delayed for nine months to obtain approval from various development forums. (Governance and Stakeholder Management issue)

S.#	Name of scheme	Inception and completion year	Actual Completion Date	Actual cost (Millions)	Revised Cost (Millions)	Status of schemes with Reasons for Revision and delay
11	Up-gradation of Provincial Headquarters Hospital Gilgit based on Master Plan	2021-24	2026	3000.000		Delay in the execution due to procedural documentation i.e. establishment of PMU, delay in hiring of consultant and civil work contractor. (Governance issue)
12	Inter-Regional connectivity between Baltistan Division and Diamer Astore Division (Construction of road from Gorikot Astore to Shagart-han Skardu.	2021-24	2027	5274.000	12000.000	Flawed feasibility, resulting in underestimated quantities compared to the actual quantities as per site requirements. (Governance issue)
13	Interprovincial Connectivity Economic Corridor Through GB and	2021-24	2027	19000.000	0.000	The delay in preparing the bidding document at the end of the consultant led to a shift in the project completion year from FY 2024 to FY



S.#	Name of scheme	Inception and completion year	Actual Completion Date	Actual cost (Millions)	Revised Cost (Millions)	Status of schemes with Reasons for Revision and delay
	AJK (Construction of Road from Thalichi via Shonter AJK)					2027. Time delay will also trigger a cost overrun in the long run. (Governance and Stakeholder Management issue)
14	Establishment of 50 50-bed cardiac Hospital, Gilgit	2015-19	2025	1300.000	4006.000	The PC-I was approved by CDWP in 2015, but the execution started after a lapse of over 3 years in 2019, due to time-consuming approvals from concerned ministries and a lack of coordination between various stakeholders. Due to Covid-19, execution got delayed. Quantum of work and original rates were unrealistic, which is why the project was revised in 2021. Due to a change in Dollar parity, the rates of bio-medical equipment changed. Some essential items were missing in the original PC-I. Approval of the revised PC-1 took one year. (Governance and Stakeholder Management issue)

S.#	Name of scheme	Inception and completion year	Actual Completion Date	Actual cost (Millions)	Revised Cost (Millions)	Status of schemes with Reasons for Revision and delay
15	Establishment of 250 Bed Hospital at Skardu	2018-21	2025	3000.000	6000.000	The project missed its execution time frame due to procedural delays in the bidding process. Due to a delay in execution and a change in dollar parity, the cost of Bio-Medical equipment increased by 300%. (Governance issue)

Source: Government of GB. (various issues). Annual reviews and monitoring reports of PSDP projects (GB).

5. CASE STUDY

The following case study, "Establishment of a 50-Bed Cardiac Hospital, Gilgit," provides a practical example of the governance dynamics and challenges associated with public sector projects in Gilgit-Baltistan. This project highlights the critical role of stakeholder engagement, financial oversight, and adaptive management in navigating the complexities of multi-stakeholder initiatives. Analysing the setbacks and lessons learned from this project allows us to draw valuable insights into improving governance stakeholder management frameworks for similar regional initiatives.

The project was envisioned to address critical cardiac healthcare needs in the region. Despite its potential to transform healthcare access in Gilgit-Baltistan, the project faced significant governance and coordination challenges that delayed its execution and escalated costs. The PC-I was approved by the Central Development Working Party (CDWP) in 2015, but execution started over three years later, in 2019, due to necessary approvals from concerned ministries and a lack of coordination among several stakeholders. Initially approved by the CDWP in 2015 at an estimated cost of Rs. 1,300 million, the project underwent a major revision in 2021, raising the budget to Rs. 4,004 million.

It has been observed that:

- There has been a lack of meaningful engagement with key stakeholders, including local government authorities, healthcare professionals, and technical teams, which has led to a misalignment between the project's objectives and the actual healthcare needs of the region.
- Critical inputs on design, feasibility, and resource allocation were overlooked, causing delays and inefficiencies.
- The absence of stakeholder feedback during the planning stages meant that the risks and challenges were not adequately anticipated or addressed.
- The governance framework lacked mechanisms for effective monitoring, accountability, and coordination.
- Poor coordination between the federal and regional agencies resulted in prolonged delays and inefficiencies.
- Weak financial oversight contributed to cost escalations, from Rs. 1,300 million to Rs. 4,004 million.
- The absence of periodic audits and a clear accountability structure exacerbated delays and reduced transparency.
- The depreciation of the Pak Rupee significantly increased the cost of importing biomedical equipment.
- The COVID-19 pandemic disrupted supply chains and workforce availability, further delaying project implementation.

In a nutshell, the 50-bed Cardiac Hospital project serves as a critical case study in understanding the complexities of governing public sector projects in Gilgit-Baltistan. Its challenges underscore the need for a multi-stakeholder approach, emphasising transparency, accountability, and adaptability. By addressing these governance gaps, future projects in the region can achieve their intended outcomes more effectively, ensuring sustainable development and improved public service delivery.

6. FOCUS GROUP DISCUSSION

We arranged a Focus Group Discussion held in the Planning & Development Department of Gilgit-Baltistan. The participants included professionals from the Planning & Development Department, Project Directors of several Federal PSDP projects, Engineers from various sectors (Communication, Works, Power, and Local Government), and representatives from civil society, Academia, and the Contractor Association. Six heterogeneous groups were formed to ensure a mix of perspectives and expertise. Each group was assigned a moderator to guide the discussion and one note-taker to document key points and insights.

Table 3 highlights the issues and recommendations from the FGDs. The findings from the FGDs on challenges about the approval processes, project teams and coordination, project justification, political interference, project initiation, planning, execution, monitoring and control, and project completion have been categorised and summarised.

Table 3: Issues and Recommendations Highlighted in FGD

Key Areas	Issues Highlighted	Recommendations
Approval Process	- Complexity and delays in approval from various development forums and lengthy bureaucratic approval procedures. - Projects are often politically driven without proper planning or studies, e.g., project initiation without site selection or feasibility studies.	- Conduct thorough need analyses to ensure projects are justified based on actual needs rather than political influence and involve secondary stakeholders to gain broader support. - Ensure that pre-feasibility studies are conducted before project initiation. - Assign dedicated project teams from the preparation of PC-I until project completion to ensure accountability and continuity.



Key Areas	Issues Highlighted	Recommendations
Project Teams and Coordination	• Insufficient capacity and coordination from project inception to completion. • Qualified human resources (HR) are missing in both approving and executing agencies. • Projects lack proper justification and are not based on immediate, mid-term, or long-term needs. • Primary data to justify needs is often missing.	• Train and hire professionals in executing agencies for project appraisals. • Identify projects based on comprehensive short and long-term development plans involving departments and political representatives. • Provide adequate resources at the initial phase, conduct third-party feasibility studies, and conduct market ratio-based cost estimates before preparing PC-1 to ensure accurate financial planning. • Simplify and expedite the process to reduce delays and bureaucratic hurdles. Establish a Project Coordination and Implementation Team (P.C.I.T) to facilitate communication and coordination among stakeholders (clients, consultants, contractors, and community).
Project Initiation	• No proper studies or site selection before project reflection in PSDP/ADP. • Lack of coordination among various stakeholders during initiation. • Political influence heavily impacts project initiation.	• Evaluate project costs through detailed field surveys and site conditions before finalizing ADP/PSDP and ensure that projects are approved and reflected in ADP/PSDP only after proper site selection and feasibility studies.

Key Areas	Issues Highlighted	Recommendations
		• Mitigate political influence and ensure appraisal-based approvals. • Include provisions for cost escalation in contracts beyond two years.
Project Planning	• Issues with PC-I preparation, drawing, design cost estimates, appraisal, and approval, and timelines for submission and approval are not adhered to. • Projects are often split into small components. • Compromising on project components due to cost constraints. • No provision for cost escalation for fixed-rate contracts, unrealistic estimates, and improper timelines. • Delays in fund releases, particularly in the first quarter.	• Coordinate with departments and incorporate current inflation rates, future projections, environmental considerations, and land acquisition with all compulsory certificates in PC-I. • Issue a development calendar timeline for project proposal preparation, submission, and approval. • Ensure that the project cost included in PC-I matches site/project requirements. • Reduce political influence and ensure appraisal-based approvals. • Establish reliable testing labs for construction materials in GB.
Project Execution	• Issues with land acquisition and non-harmonious site selection boards. • Delays and insufficient fund releases as per financial phasing and improper bidding documents, feasibility studies, and planning.	• Review contractor registration processes based on technical and financial capabilities. • Accelerate site selection board processes and ensure financial phasing as per the approved PC-I.



Key Areas	Issues Highlighted	Recommendations
	Litigation and low bid dilemmas due to competition.	- Improve communication about contract term variations to avoid project delays. - Form evaluation committees with technical experts and well-versed officials in the grievance redressal committee (GRC). - Select contractors based on third-party evaluations rather than solely on PEC's criteria.
Monitoring and Control	- Lack of internal and external monitoring systems. - Non-existence of M&E cells in P&DD and executive agencies. - Ignoring development-based M&E. - User and beneficiary involvement in M&E is lacking.	- Set up a robust monitoring and control system to keep projects on track. - Establish proper monitoring units in P&D and executive agencies. - Provide resources for monitoring teams and establish MIS systems for project tracking. - Engage stakeholders at all stages to mitigate litigation risks. - Conduct third-party evaluations for project completion and ensure timely submission of PC-IV and PC-V.
Project Completion	- Projects face delays due to insufficient funds, litigation, and scope creep. - Proper fund allocation and project closure processes are missing.	- Ensure that financial allocations are based on the progress of the project. - Adopt season-specific techniques for the execution of work execution in different seasons.

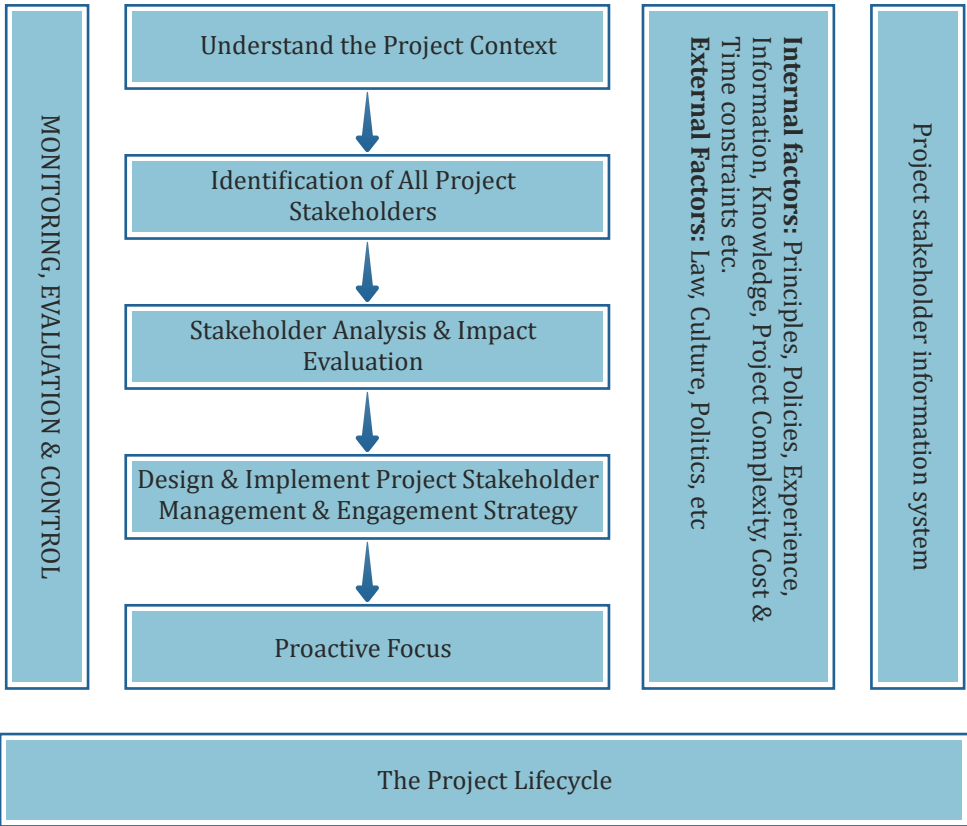
Key Areas	Issues Highlighted	Recommendations
	- Enhancements in scope and quality are often required but not planned. - Short working seasons and insufficient fund releases impact completion. - End users and contractors are not adequately involved in decision-making.	- Conduct third-party evaluations for project completion and ensure timely submission of PC-IV and PC-V. - Engage stakeholders throughout the project lifecycle. - Maintain close liaison with community members, politicians, and government entities. - Establish a single body for project implementation and coordination to address issues during project execution.

Source: Authors compilations.

7. STAKEHOLDER MANAGEMENT & ENGAGEMENT FRAMEWORK

To conceive and implement public sector projects, it is essential to identify and engage all relevant primary and secondary stakeholders from the project's inception. To facilitate this process, we propose developing a comprehensive stakeholder management and engagement framework, as illustrated in Figure 3. This framework is proposed after thoroughly reviewing available literature, analysing official documents, and gaining insights from FGDs with experts. By adopting this approach, public sector projects can ensure effective stakeholder participation and alignment throughout the project lifecycle.

Figure 3: Project Stakeholder Management & Engagement Framework



Source: Authors' computations.

Figure 3 illustrates that understanding the project's context is the first step in the project stakeholder management & engagement framework, which is often overlooked in the project's stakeholder management process. All projects are unique, and hence their context should be viewed as unique, encompassing economic, financial, social, political, ecological, ideological, and institutional facets.

The proposed framework provides a systematic approach to managing and engaging stakeholders. The framework describes the *Identification of all Project Stakeholders*. There must be an appropriate tool to identify the stakeholders. Often, this is a straightforward exercise, but sometimes it can be pretty challenging to achieve. The number of stakeholders can range from a few on simple projects to millions for a very complex projects, with a great diversity of interests and power. Overlooking stakeholders can pose problems later on, especially if they are powerful, unpredictable, and possibly unexcited

about the project. *Stakeholder Analysis* is a crucial process for understanding the interests of stakeholders in a project. It is a prerequisite for planning and engaging the project's stakeholders to increase the project's performance, i.e., achieving its goal within the allocated budget and timeframe. To manage and engage stakeholders, the stakeholders are categorised as supportive, neutral, or adversarial. Key strategies for managing and engaging stakeholders include retaining and increasing support among active stakeholders, encouraging neutral stakeholders to align positively, and mitigating resistance from adversarial parties. One must acknowledge the limitations of time, cost, resources, and creativity. *Stakeholder management and engagement strategies*, such as information sharing, consultation, offering incentives, and building partnerships, should be adopted to foster cooperation, mitigate risks, and align stakeholders with project objectives. Periodic *Monitoring and Evaluation* of the effectiveness and efficiency of the stakeholder engagement strategy must be undertaken, along with any consequent appropriate revision or modification if deemed necessary and feasible. The function of the *Project Stakeholder Information* system is to ensure that information about the project is communicated electronically throughout its life cycle to all stakeholders involved in initiating, planning, implementing, winding up, and/or monitoring, evaluating, and controlling the project. This would enable stakeholders to make informed decisions and take appropriate actions when needed, at the right time.

The issues identified in governing public sector projects in Gilgit-Baltistan, including ineffective governance, inadequate planning, and insufficient stakeholder management, underline the critical need for a comprehensive approach centred on stakeholder engagement. The proposed frameworks address these systemic issues by integrating stakeholder involvement across the project lifecycle, from initiation to completion. For example, strategies such as early identification of stakeholders, robust communication channels, and inclusive decision-making processes directly tackle the recurring issues of misalignment and resistance observed in the region's projects. The establishment of Project Management Units and Stakeholder Management Units will operationalise these frameworks by embedding stakeholder engagement into the governance structure, ensuring all proposed solutions. For example, improved monitoring systems and risk management strategies are reinforced by active and continuous stakeholder participation, thereby enhancing project outcomes and fostering trust. Tying together these factors, the project governance and stakeholder management will outline a strategy for sustainable development relevant to the specific needs of Gilgit-Baltistan.

8. CONCLUSION

The overall findings of this policy paper suggest that systemic issues exist across various stages of the project cycle. Addressing these issues will improve coordination, capacity building, reduce political interference, streamline approval processes, enhance planning accuracy, and establish robust monitoring and evaluation frameworks. Involving all stakeholders, including end-users and contractors, in the decision-making process is also crucial for the successful execution and completion of projects. A well-defined criterion must exist to address the limits on initiating new projects, considering ongoing projects and available funding. This study has highlighted critical challenges in governing PSDPs in Gilgit-Baltistan, emphasising the importance of effective project governance and stakeholder management. The analysis revealed systemic issues across the project lifecycle, including inadequate planning, inefficient approval processes, insufficient stakeholder engagement, and weak monitoring mechanisms. These factors contribute to delays, cost overruns, and suboptimal outcomes. The proposed framework offers a pathway to enhanced project performance, aligning with the Sustainable Development Goals and national priorities. The study emphasises stakeholder involvement and proposes actionable strategies to contribute to more effective governance and improved project outcomes in the region.

9. RECOMMENDATIONS /POLICY IMPLICATIONS

Using the available literature, official documents, and focus group discussions, we recommend the following steps in the short-term, medium-term, and long-term for the policymakers:

Short-Term Steps (0-1 Year)

- Conduct stakeholder mapping to identify relevant stakeholders very early in the project lifecycle and assess their influence, interest, and impact on the project.
- Projects and programs may be identified based on reliable data and detailed surveys or research studies.



- The GB government may publish scheduled rates for at least three years to ensure market-based, accurate cost estimates.
- Set a specific timeframe for the preparation and submission of PC-I documents to relevant development forums for detailed appraisal and approval.
- Policies must be devised to ensure cost estimates and feasibility studies remain valid for six months to one year.
- Establishment of a Stakeholder Management Unit & Project Management Unit with procurement and contract management specialists to oversee the project execution.

Medium-Term Steps (1-3 Years)

- Developing a robust risk management strategy may be included in the Planning Manual to address various types of risks that may arise during project execution.
- A dedicated M&E cell may be established at the sponsoring, executing, and P&DD GB to ensure that the quality of work aligns with the approved scope of the PC-I scope, cash, and work plan.
- Develop a software application to vigilantly assess data regarding implementation status and alert the relevant authorities in case of deviations from the scope.

Long-Term Steps (3-5 Years)

- Develop an integrated development plan that includes sectoral strategies based on continuous stakeholder engagement and feedback.
- Implement training programs for local government officials and stakeholders on project management and compliance with new regulations.
- Incorporate climate resilience strategies into all projects to mitigate environmental impacts.

- Engage independent auditors to evaluate project performance and compliance with governance standards periodically.
- Adopt GIS, when required, for project planning, monitoring, and evaluation to improve decision-making and resource allocation.
- Utilise E-Governance tools to streamline approvals, enhance communication, and track project progress.
- Encourage innovation in project design and solutions tailored to the unique challenges of Gilgit-Baltistan, such as off-grid energy projects or climate-resilient infrastructure.
- To strengthen the development process in GB, it is imperative to institutionalise post-project evaluation mechanisms. This would ensure that every completed project undergoes a rigorous assessment of its outcomes in relation to its planned goals. Incorporating a mandatory impact assessment phase into the project lifecycle would also improve accountability, provide data for future planning, and ensure that public resources are utilised effectively.

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DOCUMENTATION SIMPLIFICATION VIA TAX E-FILING: EXAMINING BARRIERS TO ADOPTION AND CONTINUANCE INTENTION OF USING E-FILING BY TAXPAYERS IN PAKISTAN

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ABSTRACT

This study aims to investigate and shed light on barriers that constrain the widespread adoption of FBR's tax e-filing system in Pakistan. To achieve the objective, a holistic, multi-stakeholder perspective was assessed through 20 face-to-face, semi-structured interviews with tax-filers, non-filers, and officers of the FBR. The study employs a theoretical lens suggested by DeLone and McLean's IS Success Model to assess respondents' comments about the quality of FBR's tax e-filing service. The findings suggest several issues that compromise the system's quality. These include the complexity of the IRIS website and the limited functionality of the app. The quality of information provided is also poor. This includes poor tutorials, information in a language that the user does not understand, and insufficient information about the penalty for non-filing. There are question marks on FBR's service quality as well – most of the taxpayers are unaware of the support and education offered by the Taxpayer Facilitation Centre (TFC) and the FBR's helpline. The foregoing issues are the barriers to the adoption of FBR's tax e-filing system in Pakistan. Moreover, the unwillingness of citizens to comply, the cost of complying through agents, as well as the privacy concerns associated with it, are also regarded as possible barriers. Based on the findings, the study offers recommendations to increase e-filing.

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1. INTRODUCTION

Tax is the primary source of revenue for the government, ensuring effective service delivery and ongoing economic growth. Citizens are required to pay taxes without expecting direct compensation. However, the advantages of taxes are seen in terms of national development and government spending on society's welfare. As the primary collector of tax revenue in Pakistan, the Federal Board of Revenue (FBR) is responsible for optimising tax collection to support the country's economic progress. To boost tax revenue through better compliance, the FBR introduced the electronic tax filing system (e-filing) in 2005. The primary objective was to enable taxpayers to access the FBR's system from any location and at any time, thereby significantly enhancing convenience. E-filing also reduces costs associated with paper-based filing, such as travel expenses and the opportunity cost of time spent submitting Tax Returns in person. It benefits the FBR by reducing workload and processing costs, as well as simplifying the management and storage of paper returns and documents. When online tax filing services began in 2005, they initially attracted more users than manual filing, as reported in the FBR's 2006 review. Although challenges are expected in the early years of implementation, as seen in countries like the USA, Taiwan, and Singapore, Pakistan still faces low adoption even after nearly two decades, with the number of e-filers remaining below the target. According to FBR's Active Taxpayers List (ATL), there are 3.41 million active taxpayers (FBR, 2024), representing only 1.4% of Pakistan's population of approximately 245.29 million (Worldometer, 2024) and 4.1% of the labour force. The number of tax filers has fluctuated, decreasing from 5.7 million in 2021 to 3.55 million in 2022 and further down to 3.41 million in 2024, indicating poor performance by the FBR. Furthermore, at 1.4% of the population, the proportion of taxpayers within the population is the lowest globally. In the neighbouring country India, taxpayers make up 5% of the population. Indonesia stands at 10%, Japan at 39%, the USA at 44%, and France at 76% which are way beyond Pakistan's dismal figure of 1.4% of the population paying income tax. Canada and Australia surpass 80%. The poor state of e-filing in Pakistan warrants attention from academics and practitioners to identify improvement strategies. To address the problem, understanding its root causes is essential. Several studies have examined factors that hinder a culture of tax compliance in Pakistan. Bukhari & Haq (2014) identify poor management, an inefficient e-filing system, unjust tax rates, and a lack of trust in tax authorities as contributing factors to tax evasion. Awan & Hannan (2014) highlight the complexity of the tax system, misuse of public tax funds, fraudulent management, and wasteful government spending as key issues. "The system is plagued by cumbersome procedures



and a lack of transparency, discouraging compliance and fostering a culture of avoidance” (Zahid, 2024). Khalid & Nasir (2020) note that high compliance costs act as deterrents, with “around 577 hours every year” needed for tax-related tasks in Pakistan, compared to a global average of 108 hours (p. 464). Tax awareness is also crucial; unfamiliarity with filing procedures and their benefits discourages compliance (Bano et al., 2023). Despite these insights from the literature, no comprehensive study has examined the barriers to adopting the FBR’s e-filing system from the perspectives of all stakeholders. This research aims to bridge that gap by exploring the views of e-filing stakeholders, including tax filers who have used the system, non-filers who have not used the system, and the FBR officials involved in its implementation. The goal is to highlight the constraints and propose solutions to improve the widespread adoption of tax e-filing in Pakistan.

2. LITERATURE REVIEW

Over recent decades, the fields of taxation and electronic filing of tax returns have become central to many economies. Extensive research has been conducted into the adoption and success of e-filing in countries such as the USA, Indonesia, Malaysia, Taiwan, Tunisia, Vietnam, Kenya, India, and Pakistan. The United States introduced its tax e-filing service in 1986, and data shows consistent and steady growth in both volume and market share for e-filing (Bai et al., 2019). Other nations have only recently launched e-filing platforms for tax payments and return submissions. Apart from the USA, most of these economies have encountered challenges related to low adoption rates of e-filing services. The adoption of technology and information systems like tax e-filing has been extensively explained through theories such as the technology acceptance model (TAM), the Diffusion of Innovation (DOI), the Unified Theory of Acceptance and Use of Technology (UTAUT), and the IS success model (Rana et al., 2017). Some scholars have combined two or more theories or extended these models by adding extra constructs to explain either the adoption or barriers to adopting tax e-filing services (Maji & Pal, 2017). For instance, Schaupp & Carter (2010) applied UTAUT and found that performance expectancy, social influence, and facilitating conditions notably impact the adoption of tax e-filing. Tahar et al. (2020) reported that perceived ease of use and perceived security were key factors affecting the intention to use e-filing in Indonesia. Rakhmawati & Rusydi (2020) identified a correlation between the perceived usefulness of e-filing and social influence on tax compliance in Indonesia. Azmi et al. (2012) studied an extended TAM model

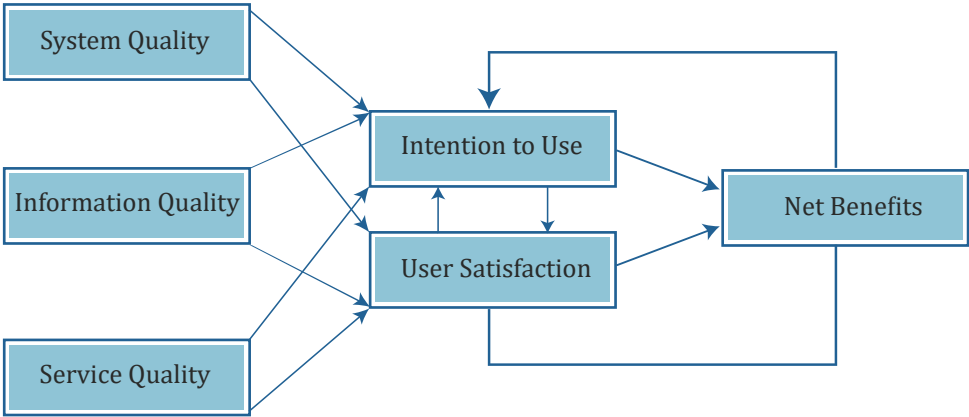
that included perceived risk and observed that perceived usefulness, perceived ease of use, and perceived risk all influence tax e-filing adoption in Malaysia. Similarly, Santhanamery & Ramayah (2018) found that perceived usefulness and polite attitude are significant predictors of tax e-filing. Njuguna (2023) concluded that perceived usefulness, perceived ease of use, facilitating conditions, and users' ability to operate the system are significantly related to its adoption in Kenya. Maji & Pal (2017) identified that in India, perceived ease of operation, website quality, perceived utility, cost-effectiveness, and social influence are key determinants of e-filing adoption. According to Haryani et al. (2015), the simplicity of the tax e-filing system and perceived ease of use have a positive effect on e-filing adoption in India. Lu & Ting (2013) reported that in Taiwan, elements from both TAM and TPB significantly predicted the intention to use tax e-filing. Chaouali et al. (2016) highlighted performance expectancy, effort expectancy, social influence, and trust as positive factors influencing tax e-filing in Tunisia. Inasius (2019) noted that the likelihood of audits, perceived fairness and equity, social circles, and tax awareness all contribute to tax compliance among Indonesian citizens. Oktaviana et al. (2020) argued that, in Indonesia, knowledge about taxation, awareness of penalties, and tax socialisation positively impact tax compliance. Similarly, Wahdi et al. (2022) also examined the adoption of e-filing for taxes in Indonesia. They argue that taxpayers' knowledge and perceptions of security and confidentiality positively influence their intention to use e-filing. Husain (2020), in an exploration of tax e-filing adoption in three developing economies—Pakistan, India, and Oman—argues that system quality is a crucial factor in explaining citizens' intention to adopt tax e-filing, as well as their trust in the service and perceptions of its functional benefits. Akram et al. (2019) tested the IS success model to clarify the intention to use tax e-filing in Pakistan. They concluded that perceived functional benefits and confirmation of expectations significantly influence the intention to adopt e-filing.

Theoretical Framework

The theoretical foundation of this study is based on the widely accepted theory, namely the modified IS Success Model (DeLone & McLean, 2003), which is used to assess the success of an information system. We specifically utilise the three quality dimensions from the IS Success Model to explain the barriers to the adoption of FBR's tax e-filing service in Pakistan. The quality dimensions employed are information quality, system quality, and service quality, as identified by the system's users (i.e., the respondents of the study). This approach has also been adopted by Wicaksono et al. (2021) in the

Indonesian context. The IS Success Model suggests that the quality of the system influences citizens’ satisfaction with the system and their intention to use it, ultimately resulting in net benefits of these services to the citizens (Urbach & Müller, 2012). Although the IS Success Model has been widely applied in various fields, its utilisation in e-government services such as tax e-filing remains uncommon, with only a few studies applying the model to explain the success of e-filing (Stefanovic et al., 2016; Akram et al., 2019; Wicaksono et al., 2021). Some studies have also expanded the original IS model by incorporating additional relevant constructs such as website design quality, trust, and facilitating conditions. Since e-filing involves no physical interaction between citizens and the government, having a high-quality website or app becomes crucial in assessing its efficiency and effectiveness. Efficiency encompasses cost savings, time savings, and accurate communication. Effectiveness includes easy and rapid information retrieval, convenience, and personalised services (Akram et al., 2019). Citizens’ perception of the quality of the e-filing system ultimately shapes their view of its benefits. Figure 1 below illustrates the updated IS Success Model. The three quality dimensions are depicted below.

Figure 1: DeLone and McLean's Updated IS Success Model



Source: DeLone & McLean 2003.

System Quality

The system's quality pertains to the performance of the information system itself. It refers to "the necessary characteristics of IS itself, such as flexibility, stability, reliability, user-friendly interface, ease of use, response time, and security" (Akram et al., 2019, p. 242). A standard measure for assessing a system's quality is perceived ease of use (Urbach & Müller, 2012). A user considers a system easy to use if they can operate it effortlessly and effectively without exerting excessive physical or mental effort (Singh & Srivastava, 2018). In short, a technology that is simple and user-friendly is more widely adopted than a complicated one (Hubert et al., 2019). The quality measures relevant to e-filing government websites may include availability, access, convenience, response time, user-friendliness, usability, reliability, and ease of navigation (DeLone & McLean, 2003). These measures also apply to tax e-filing systems, where citizens expect the system to be readily accessible, user-friendly, feature-rich, and free from significant technical issues (Sijabat, 2020). Several studies across different contexts have confirmed the positive influence of tax e-filing system quality on perceived usefulness and overall user satisfaction (Tjen et al., 2019; Veeramootoo et al., 2018). We conclude that the FBR should provide a high-quality tax e-filing system to meet the needs of the taxpayers. This will enhance their usage of the system and thereby promote increased tax compliance.

Information Quality

The 'information quality' refers to an information system's ability to deliver high-quality outputs, such as content, reports, and dashboards. The quality of information can be assessed based on its accuracy, relevance, timeliness, and completeness (DeLone & McLean, 2003). For an e-government website, such as a tax e-filing system, high-quality information means it is complete, reliable, current, accurate, concise, precise, and relevant (Akram et al., 2019; Valaei & Baroto, 2017). Therefore, FBR must take steps to ensure that the information provided by the tax e-filing system meets the necessary quality standards and attributes.

Service Quality

The term 'service quality' essentially refers to consumers' overall expectations regarding various services, such as the availability and readiness of services, safety of transactions, and personalised attention (Akram et al., 2019, p. 242). In the context of tax e-filing services, service quality pertains to



the support services provided by the FBR to assist taxpayers in using the system and meeting their tax compliance obligations. These support services can include a helpline, a help desk, training, etc. Relevant literature has highlighted the positive influence of good 'service quality' perception on the perceived usefulness of e-government services and user satisfaction (Chen et al., 2015; Veeramotoo et al., 2018). Consequently, the FBR should focus on delivering high-quality tax e-filing support services to ensure taxpayers receive adequate assistance.

3. RESEARCH METHODOLOGY

The study collects qualitative data through face-to-face semi-structured interviews. An interview guide was developed based on research questions (Appendix 1). The sample includes 20 respondents, selected via purposive sampling, consisting of 12 males and 8 females. The sample comprises filers, non-filers, and officers of the FBR. The interviews were audio recorded with the respondents' consent. We employed thematic analysis – the audio recordings were transcribed, coded, and categorised into themes for analysis.

4. FINDINGS AND DISCUSSION

Thematic Analysis

Brief History of Tax E-filing in Pakistan

As an introductory question, respondents, particularly officers of the FBR, were asked to share a brief history of tax e-filing in Pakistan. According to them, the FBR's automation process began in the 1980s. Initially, the automation was outsourced; however, this did not produce the desired results, and return filing remained paper-based for over twenty years. Another attempt at e-filing started in 2003. After years of effort, electronic tax filing commenced in 2007, initially for the corporate sector only. It became fully operational for all taxpayers in 2009. "...there were so many issues and errors with manual filing, but now online filing cannot go wrong," stated one of the FBR officers. IRIS, in its initial form, was introduced in 2014 to provide maximum facilitation to taxpayers. However, as one officer noted, "to use the system, some basic legal knowledge should be there." In 2017, electronic filing

entirely replaced manual filing; that is, the option to file manually is no longer available. One officer stated that “the shift from manual to electronic was not abrupt.” Another officer mentioned that “IRIS’s primary purpose was to acquire healthy data for analytics. Facilitating taxpayers was a secondary purpose.” Reflecting on the current version of IRIS, IRIS 2.0, an officer shared that “the user experience has improved in IRIS 2.0, and the system’s efficiency has been enhanced. Now, the workload is better managed during the tax filing season. The system no longer hangs.”

Barriers to Adoption

During the interviews, the respondents, including FBR officers, tax filers, and non-filers, were asked about the barriers that hinder the widespread adoption of FBR’s tax e-filing services. The majority of respondents identified several barriers, including the complexity of the system, the general reluctance of citizens to comply, insufficient tax training and education, lack of taxpayer awareness about education and support through Taxpayer Facilitation Centres (TFCs), limited awareness and functionality of the Tax Asaan app, the cost of complying through agents, confidence in agents, and lack of awareness about the penalties for non-filing. The barriers relevant to the three quality dimensions of the IS Success Model are categorised accordingly. All these barriers are discussed individually below, considering the responses provided by the interviewees. Table 1 provides a general overview of the study's themes.

Table 1: Overview of Themes

System quality	Complexity of the system
	Limited functionality of the Tax Asaan app
Information quality	Insufficient training/education through tutorials
	Language barrier
	Lack of awareness about the penalties for non-filing
Service quality	Lack of taxpayer awareness about education and support provided through the TFCs and the FBR’s helpline.
Other issues	General reluctance of the citizens to comply with tax laws
	Cost of compliance through agents/consultants
	Lack of confidence, regarding accuracy and confidentiality, on agents/consultants filing returns for clients.

Source: Authors' computations.



System Quality

The responses in which the study respondents shared issues related to the technical aspects of the tax e-filing system are categorised under the heading of system quality. Based on the responses, the problems related to the system quality of FBR's tax e-filing service include the complexity of the system and the limited functionality of the Tax Asaan app.

Complexity of the System

The complexity of the income tax e-filing system is a prominent theme that emerged from the responses of all participants. Although the shift from manual to electronic filing has increased the number of tax filers, most believe that tax e-filing remains complicated, as it demands a thorough understanding of tax laws. Moreover, it requires taxpayers to provide accurate financial information, which entails having the necessary knowledge and supporting documents when filing income tax returns. Additionally, it is a lengthy process that demands a significant time commitment. Beyond these formalities, the tax e-filing system, specifically IRIS 2.0, is not user-friendly, making it difficult to navigate and understand. This is because it is filled with confusing content and numerous forms, often lacking sufficient guidance on their relevance to individual taxpayers. It is challenging to determine which categories, heads, or fields (such as assets, liabilities, expenses, and taxes) apply to a specific person across different sections, tabs, or menus of the website for filing income tax returns. One respondent mentioned, "I once tried (the IRIS) but found it too complex and feared that it would cause problems." When asked about the website's content, another respondent noted that IRIS 2.0 is "heavily loaded with irrelevant material." Similarly, another respondent remarked that the "contents are confusing, e.g., Fixed Tax regime & Normal Tax regime, etc." Consequently, to avoid getting entangled in the complexities of the tax system and to save time, taxpayers often prefer to engage a tax expert or agent to handle their income tax returns. One respondent stated, "multiple types of taxes i.e. turnover tax, minimum tax, final tax, tax on gain on sale of property and last but not least tax levied under Section 7E of ITO, 2001 confuse the taxpayer how to file tax return without help of a tax expert." Another commented that "a simplified tax scheme may be introduced for individual taxpayers as their share in the tax Returns filed for a tax year exceed the Returns filed by rest of taxpayer-categories." Most taxpayers are willing to contribute to the national kitty, but the complexity of the system often compels them to seek guidance from tax experts to minimise their tax liability. Some respondents also mentioned that they seek assistance from agents and observe them while filing, but the system's complexity discourages

independent filing. Many feel there is no harm in seeking help from peers or agents if the return is filed. One respondent said, "It is easier for people to ask someone else to do it as it takes time and reconciliation effort." They further stated, "Tax filing is not easy anywhere in the world, even in the USA, so why do people expect our system to be straightforward?" Another respondent, who also saw no problem in enlisting help from an agent, remarked, "There is a misconception that everyone should file themselves," and added, "People can go to a consultant [to file income tax returns], there is no problem in it."

To conclude, the responses indicate that the system's complexity is one of the main factors requiring the attention of the FBR. A user-friendly e-filing system, which allows taxpayers to file their tax returns independently, will help foster a culture of tax compliance in the country.

Limited Functionality of Tax Asaan App

The Tax Asaan app was introduced to simplify the tax filing process for taxpayers, especially those in the salaried class. However, most users have never used this app. One respondent stated, "I did not use the FBR Tax Asaan app; I file my return through the classic view." Another respondent who had viewed the app commented that, "it is complicated to file using the Tax Asaan app." There is no option for 'reconciliation' in the app. The respondents also mentioned that the Tax Asaan app has limited functionality, mainly designed for filing simpler returns. Additionally, they noted that they have not received any training and are unaware of whether tutorials for using the app are available. During discussions about the use of the Tax Asaan app with FBR officers, one commented, "... right now, the app has not influenced a significant number of filers." He further added, "[as of now] the app has been developed for the sake of developing an app." He also mentioned that "the app is being redesigned and will be heavily publicised through campaigns." The officers stated they are working on making the registration process as simple as possible. "If your phone number is registered in your name, you will be able to register on the app easily," he said. He continued, "[then the people] would not need assistance." Similarly, another officer indicated ongoing efforts to improve the app, saying, "Right now, the Tax Asaan app is for people with some minimal understanding (of tax matters)." She further added, "Apps are improved with customer feedback... We are trying to make the app user-friendly, and we are also adding the 'help' feature wherever necessary." Based on these responses, we conclude that the current functionality and usability of the Tax Asaan app are limited. This is the primary reason for its restricted use. If the promised improvements are implemented, citizens may opt to file their income tax returns via the Tax Asaan app instead of IRIS 2.0.



Information Quality

The respondents shared their opinions on various aspects of the information quality of FBR's e-filing system. These aspects include completeness, timeliness, accuracy, reliability, consistency, sufficiency, understandability, and relevance. Based on the responses, issues related to 'information-quality' in FBR's tax e-filing service involve inadequate training or education through tutorials, language barriers, and a lack of awareness about penalties in case of non-compliance.

Insufficient Training/Education through Tutorials

Although the FBR's website offers tutorials for taxpayer education, interviews revealed that most respondents are unaware of their availability. Additionally, those who knew of the tutorials found the content to be of poor quality. Respondents found the tutorials difficult to follow, as they provided only basic steps for filing an income tax return. They lack detailed information on categories and sub-categories, omit important procedures, and share incomplete details on tax e-filing. Most agreed that the tutorials do not sufficiently explain all sections and subsections, such as Wealth Statement, Personal Expenditures, Assets, and Liabilities, relevant to taxpayers. The information was also regarded as irrelevant. Furthermore, respondents highlighted the need for tutorials on the supporting documents required for filing income tax returns. One respondent said, "There is only one document which is focused on the list of supporting documents and that too is not very clear". Many people are also unaware of the basic taxation and accounting concepts required for filing returns, such as assets, liabilities, income, expenditures, wealth, and reconciling unreconciled amounts. Respondents concurred that a comprehensive tutorial on the FBR's website should educate taxpayers on these fundamental concepts. Interestingly, most FBR officers are also unaware of the tutorials' existence, and those who are aware believe improvements are necessary. One officer suggested that, in the absence of effective tutorials, "people should seek peer help", discussing issues with those more knowledgeable about tax e-filing. Several officers emphasised the limitations on their part regarding the use of simple language or details in tutorials, fearing that overly simplified explanations or the use of layman's language could lead to litigation issues, as individuals might interpret the information differently, creating problems. One officer stated, "adding layman's language may lead to misperception, so we have to use the legal language." Another mentioned, "including explanation in the tutorials would facilitate people, but it may create litigation issues as people can understand the explanation differently." They also stressed that legal matters "require

neutrality". To address this, officers suggested that people could find tutorials created by independent individuals online, particularly on YouTube. An officer explained, "The citizens can use alternate sources like videos of different consultants on YouTube". Regarding training on basic taxation concepts, officers reported that they regularly organise seminars and training sessions at university campuses upon request. They added, "The PR department of FBR can provide tax training. If universities invite, we conduct seminars for them." Ultimately, these responses indicate that the FBR has not done enough to inform the public about the tutorials on its website, nor sufficiently developed high-quality tutorials that are accessible to ordinary taxpayers. Effective solutions should be devised to produce tutorials in layman's language while avoiding legal complications.

Language Barrier

Another barrier faced by some people when filing their income tax returns is the use of English on the website, forms, and in all communication and correspondence from the FBR with citizens. A typical taxpayer in Pakistan with limited education may struggle to understand the content described in English. This might discourage people from filing returns altogether, as they may not be able to afford a consultant's services. When asked if introducing Urdu in the system and communication could increase the number of tax filers, one officer mentioned that "...the number of taxpayers will only increase marginally". Another officer commented that, "the tutorials are available in Urdu as well". He further added that, "if someone does not understand a legal document in English, he can seek help from a tax lawyer". While discussing the Tax Asaan app, an FBR officer stated that "we are already working to add the option of Urdu in the app to facilitate taxpayers. The bottom line is that including Urdu in the system and communication can make it more inclusive and encourage more people to use the system and file their income tax returns.

Lack of Awareness about Penalties

Most respondents recognise the importance of filing accurate income tax returns; however, they lack confidence that their agent files their returns correctly. Although they fear the consequences of incorrect tax submission, they are unaware of the specific penalties that apply in such cases. The respondents also know they could be selected for an audit of their submitted income tax returns. A few have experienced an 'audit' of their income tax returns. They stated that going through an 'audit' was not a good experience. As one respondent remarked, "Fought them for 6 years and proved that I was

right.” Another commented, “Worst experience. The Inspector blackmailed me and asked for a huge amount close to the tax assessed in the audit report.” Similarly, another respondent, who was selected for audit, said, “I submitted the reply via iris and received no response, then a direct order was passed against me.” One respondent shared his bad experience by saying he was “very much uncomfortable with non-professional attitude of the incompetent and non-technical officers (Drs, Engineers and simple graduates) hired by the FBR to perform a more technical function of Audit, which needed thorough knowledge of accounting, taxation, IT and law.” From these responses, we conclude that there is a general lack of awareness about the penalties associated with incorrect tax filing. Furthermore, in cases of audit—whether due to mistakes or other reasons—taxpayers are often treated disrespectfully or unprofessionally, which discourages citizens from participating in the tax system.

Service Quality

The responses in which the study's respondents commented on the support services provided by FBR to assist taxpayers with e-filing their income tax returns are classified under the category of service quality. According to the responses, issues related to the information quality of FBR's tax e-filing service include a lack of taxpayer awareness about education and support services available through the Taxpayer Facilitation Centres (TFCs) and the helpline.

Lack of Taxpayer Awareness about Education and Support through TFCs and Helpline.

Some respondents were aware of and had used the FBR's helpline, which offers support to taxpayers who e-file their tax returns. When asked about their experience, responses were mixed; some expressed satisfaction, while others described the service as 'pathetic, with staff exhibiting poor knowledge of tax matters and an unfriendly attitude'. Most respondents were unaware of the centres' existence or the support they can offer. As one FBR officer mentioned, “taxpayers are not aware of the existence of these centres”. She further noted that “the infrastructure of these centres is not good enough and there is also a need to manage the human resources”. Another officer commented that, “During the tax filing season, the employees are available to assist taxpayers, often staying late to accommodate more people. Taxpayers can file their taxes free of charge with assistance from a TFC employee. However, another FBR officer remarked that “the employees in TFCs may ask

for some money for their services as tax filing is a laborious task". Therefore, there is a need for improvement and better promotion of the services and support offered by the FBR's helpline and the TFCs so that taxpayers facing issues can utilise these facilities for their income tax returns.

Other Issues

The respondents also highlighted other issues related to tax e-filing, such as a general reluctance among citizens to comply with tax laws and the use of third-party agents for e-filing. The need for assistance from agents arises because taxpayers find the FBR's tax e-filing system difficult to use, and because the FBR does not provide sufficient support services.

General Reluctance of Citizens to Comply

When asked about the barriers to adopting e-filing for income tax returns, some respondents highlighted a general unwillingness or reluctance among Pakistani citizens to pay or file their taxes. The respondents, particularly officers from the FBR, stated that citizens are being supported as much as possible by transitioning from manual to electronic filing and by continuously improving the e-filing system. However, some individuals remain hesitant to participate and use the system, as they do not want to comply. When discussing the income tax e-filing system, one respondent mentioned that "as for the use of the e-filing system by a standard taxpayer, it depends on the willingness." Another respondent also remarked that, "people cannot be convinced by simplifying the form or app because they do not want to comply". He further added, rather satirically, that "the ultimate facilitation for citizens would be to eliminate taxes". Another issue fostering reluctance among citizens is the lack of trust regarding the sharing of their personal financial information. As one respondent noted, "there is unwillingness to file taxes as some people are scared to share their financial information". When asked about the reluctance of people to file their income tax returns independently, the respondents believed that the shift from manual to electronic filing has undeniably increased the number of filers, as far fewer used to file manually compared to those filing online. Nevertheless, the compliance rate remains very low. As one respondent stated, "nobody wants to pay taxes, and the worst part is that the cost of non-compliance is zero. There must be repercussions/penalties for non-compliance." In the absence of consequences, there is little to no motivation among citizens to pay taxes, let alone file income tax returns independently.



Cost of Complying through Agents

Another issue that can be a barrier to e-filing is the unnecessary cost that people must bear in the form of payments to agents or tax lawyers for filing tax returns on their behalf. The respondents stated that they must pay between Rs. 5,000 and Rs. 50,000 annually to a tax filing agent for submitting their returns. Most respondents also mentioned that the high fees charged by tax lawyers induce them to learn how to file returns independently, but the complexity of the system discourages this. Some respondents believe that the fees charged by tax lawyers are justified due to the complexity of the laws and the filing system. To conclude this section, the complexity of the tax system is such that if a taxpayer cannot afford the services of a tax lawyer, he or she may decide not to file at all. The lack of a penalty for non-compliance further exacerbates the problem.

Lack of Confidence on Agents Filing Returns (Accuracy, Privacy)

When filing through an agent, a taxpayer must share confidential financial information and supporting documents so that the agent can accurately file income tax returns on their behalf. The respondents revealed that they are always concerned about the privacy of their financial documents when shared with an agent. One of the officers mentioned, “taxpayers are not confident about the correct filing of their tax returns by the agents”. While most respondents stated that they are not typically present when their agent files their income tax returns, even those who reported being consistently present were not confident that their agent had filed correct income tax returns on their behalf. Respondents who are present with their agent when filing income tax returns also stated that their agent sometimes requests clarifications or information, which they provide. However, if taxpayers try to learn or ask questions from agents, these are often not adequately answered, making the tax e-filing system seem even more complicated.

5. CONCLUSION

This study was conducted to examine the barriers to the adoption of FBR’s tax e-filing service by taxpayers in Pakistan. Data were collected through interviews with relevant stakeholders, including current tax filers, non-filers, and FBR officers. The data analysis revealed valuable insights regarding the significant barriers faced by users of the FBR’s tax e-filing system. The main issue was the complexity of the website (IRIS 2.0), especially since it is not

easy to navigate. It contains too much unexplained content, which makes the tax e-filing process more complicated. Secondly, there is a general reluctance among Pakistanis to pay taxes or file their tax returns. Possible reasons include the lack of consequences for non-compliance. Taxpayers' lack of trust that an agent filing on their behalf will protect their financial information could also be a factor in avoiding e-filing. Thirdly, the poor quality of tutorials available on the FBR's website and the lack of awareness about their existence hinder e-filing in Pakistan. Moreover, taxpayers are generally unaware of support facilities such as the Taxpayers Facilitation Centres and the FBR's helpline. They are also largely unaware of the Tax Asaan app, which was developed to simplify tax filing for them, though it lacks full functionality, limiting its use. A language barrier—where content is only available in English, which most taxpayers do not understand—adds to their difficulties. Given the complexity of the tax system, taxpayers often rely on tax lawyers or agents, who charge substantial fees that most cannot afford. Lastly, most citizens are unaware of the exact penalties for filing an incorrect tax return. These barriers identified in this study require the FBR's attention to improve the system and encourage e-filing of tax returns.

6. RECOMMENDATIONS / POLICY IMPLICATIONS

The findings of this study shed light on various issues faced by taxpayers in Pakistan regarding filing their income tax returns online through the FBR's website, IRIS 2.0, and the Tax Asaan app. Based on the study's findings, the following recommendations are proposed to enhance the tax e-filing process.

User-Friendliness of System

There is an urgent need to simplify the tax e-filing system (both the website and the app) by creating a user-friendly and intuitive interface. A drop-down menu should list all potential sources of income, allowing taxpayers to select their source(s). Additionally, a list with checkboxes should enable taxpayers to tick the taxes they have already paid. When filing, taxpayers frequently struggle to remember all the taxes they paid for the relevant year. Users should be guided throughout the process using a 'help' section or small pop-ups explaining various terms used in the form. An expanded and clear FAQ section should be added to the FBR's website to address common questions. Furthermore, there should be an option to access and navigate the website and app in Urdu, making the system more inclusive. This will

empower ordinary taxpayers to file their income tax returns independently. Eliminating the need to hire a consultant will also reduce concerns about the privacy of financial information and eliminate additional costs. Overall, streamlining and enhancing the tax e-filing system (the website and the app) can encourage more people to participate, increasing the number of tax filers across the country.

Taxpayers Education

It is recommended that the FBR develop better and more effective tutorials for taxpayers' education and assistance. Currently, the existing tutorials provide basic information, omit important steps, lack sufficient guidance on various sections and subsections, and are not easy to follow. The FBR should enhance the tutorials to address these issues. The tutorials should also be created to educate taxpayers about the fundamental concepts of taxation, including but not limited to categories of assets, liabilities, incomes, wealth, expenditures, and the reconciliation or adjustment of unreconciled amounts, using simple, non-legal language. Additionally, there is a need to design tutorials that inform taxpayers about the required supporting documents and their contents for filing tax returns accurately and efficiently. The FBR can develop comprehensive tutorials explaining the entire e-filing process step-by-step for common categories of taxpayers. Furthermore, they can establish a dedicated YouTube channel to upload these tutorials, making them easily accessible. The FBR should also communicate with taxpayers using layman's language in emails, SMS alerts, and other channels. These tutorials should be available in both English and Urdu to expand their reach. Lastly, taxpayers should be educated through multiple platforms, such as television and social media, about the penalties and consequences of non-compliance with tax laws.

Awareness and Redesigning of Facilities Provided by TFCs

Currently, most taxpayers are unaware of the facilities offered by the Tax Facilitation Centres (TFCs), which raises questions about their usefulness. The few who have visited these centres are unimpressed with the services and the attitude of the staff towards those seeking facilitation. FBR should redesign and enhance the services of TFCs and properly develop their infrastructure. Relevant officers should be available to assist individuals with e-filing their returns. There should be a designated section, department, or person at TFCs to educate taxpayers about taxation, offer on-site training on tax filing, and address all queries related to taxation concepts, the e-filing process, required documents, legal notices, and other related matters. Additionally, the FBR



should promote awareness of TFCs through advertising on various platforms. While communicating the tax e-filing deadline, the FBR may also highlight the facilitation services available at TFCs. Well-developed TFCs with helpful staff can eliminate the need for third-party agents, allowing taxpayers to file their returns independently.

The FBR should also make efforts to integrate the taxpayers' data available with the FBR with other relevant departments, such as NADRA and FIA. This will automate the data entry process for the taxpayers to some extent. Moreover, as the system will automatically extract data from the integrated sources, it will make filing income tax returns easier and less time-consuming for citizens. It will also eradicate the possibility of entering incorrect data, thus ensuring the accuracy of tax e-filing.



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APPENDICES: INTERVIEW GUIDE

APPENDIX I: Interview Guide for Taxpayers

- 1) When filing yourself, have you received any form of training to file your income tax returns?
- 2) If training received, from whom/where?
- 3) If training was received, are you satisfied with the training you received to file your income tax returns?
- 4) When filing yourself, are you fully aware of the type/number of documents needed to file your income tax returns?
- 5) Do you find the collection of these supporting documents easy to file your income tax returns?
- 6) Are you confident about the authenticity of the collected supporting documents needed to file your income tax returns?
- 7) Are you confident about the relevance of the collected supporting documents needed to file your income tax returns?
- 8) Do you understand the contents of the collected supporting documents needed to file your income tax returns?
- 9) If filing yourself, are you confident that you are filing the correct income tax return?
- 10) Are you aware of the penalties applicable in case of wrong income tax filing?
- 11) Is it important for you to file correct tax returns, or is it just fulfilling the requirement of filing tax returns enough?
- 12) Are you aware that you can be selected for audit for your completed income tax returns?
- 13) Have you ever been selected for an audit on your completed income tax returns?
- 14) If selected, please share your experience of the income tax return audit.
- 15) While filing, do you find the income tax filing system complicated?
- 16) If yes, how can the complexity of the income tax filing system be improved?
- 17) Overall, how can the income tax filing system be improved for taxpayers filing themselves?



- 18) When filing yourself through the FBR Website (IRIS 2.0), what do you think about the contents of the FBR website?
- 19) Do you find the website layout user-friendly?
- 20) Do you find the website easy to navigate?
- 21) Do you sufficiently understand the different tabs/sections/menus of the website?
- 22) Do you know which different categories/heads/fields (assets/liabilities/expenses/taxes) apply to you on different tabs/tiles/menus of the website for filing income tax returns?
- 23) If not sure or confused, how do you seek help or resolve such queries?
- 24) Have you received any training on using the website?
- 23) If training was received, from whom?
- 26) Did you know that the tutorials are available to facilitate return filing on the FBR website?
- 27) Have you ever accessed tutorials for return filing available on the FBR website?
- 28) How did you come to know about the availability of tutorials for return filing?
- 29) Do you think existing tutorials share only fundamental steps for filing an income tax return?
- 30) Do you think existing tutorials miss important steps for filing income tax returns?
- 31) Do you think existing tutorials share incomplete information for filing income tax returns?
- 32) Do you think existing tutorials do not share sufficient information/explanation about all sections/sub-sections (Wealth Statement, Personal Expenditures, Assets, Liabilities) applicable to taxpayers filing income tax returns?
- 33) Do you think existing tutorials do not share relevant information/explanation (types, categories) to be added in all sections/sub-sections (Wealth Statement, Personal Expenditures, Assets, Liabilities) applicable to taxpayers filing income tax returns?
- 34) Do you think existing tutorials are not easy to follow for filing income tax returns?
- 35) Do these tutorials provide a list of documents needed to file income tax returns?

- 36) Do you think that tutorials should also be developed to educate taxpayers about list of supporting documents needed for filing income tax returns?
- 37) Do you know about relevant concepts of taxation (Categories of Assets/Liabilities/Incomes/Expenditures/Wealth/Re-Conciliation or Adjustment of Un-Reconciled amount) for filing income tax returns?
- 38) Do you think that tutorials should also be developed to educate taxpayers about relevant concepts of taxation (Categories of Assets/Liabilities/Incomes/Expenditures/Wealth/Re-Conciliation or Adjustment of Un-Reconciled amount) for filing income tax returns?
- 39) Do you find these tutorials effective for learning?
- 40) Do you use the website through a wizard-based interface or a standard menu?
- 41) How do you think the FBR Website (IRIS 2.0) can be improved?
- 42) When filing yourself, do you file your income tax returns yourself through the FBR Tax Asaan app?
- 43) If filing yourself through the FBR Tax Asaan app, what do you think about the contents of the FBR Tax Asaan app?
- 44) Do you find the app layout user-friendly?
- 45) Do you find the app easy to navigate?
- 46) Do you sufficiently understand the different tabs/sections/menus of the app?
- 47) Do you know which different categories/heads/fields (assets/liabilities/expenses/taxes) apply to you on different tabs/tiles/menus of the app for filing income tax returns?
- 48) If not sure or confused how do you seek help or resolve such queries?
- 49) Have you received any training for using the app?
- 50) If training received, from whom?
- 51) Did you know that the tutorials are available to facilitate return filing for taxpayers?
- 52) Have you ever accessed tutorials for return filing available on website?
- 53) How did you come to know about the availability of tutorials for return filing?
- 54) Do you think existing tutorials share very basic steps for filing income tax return?



- 55) Do you think existing tutorials miss important steps for filing income tax returns?
- 56) Do you think existing tutorials share incomplete information for filing income tax returns?
- 57) Do you think existing tutorials do not share sufficient information/explanation about all sections/sub-sections (Wealth Statement, Personal Expenditures, Assets, Liabilities) applicable to taxpayers filing income tax returns?
- 58) Do you think existing tutorials do not share relevant information/explanation (types, categories) to be added in all sections/sub-sections (Wealth Statement, Personal Expenditures, Assets, Liabilities) applicable to taxpayers filing income tax returns?
- 59) Do you think existing tutorials are not easy to follow for filing income tax returns?
- 60) Do these tutorials provide a list of documents needed to file income tax returns?
- 61) Do you think that tutorials should also be developed to educate taxpayers about list of supporting documents needed for filing income tax returns?
- 62) Do you know about relevant concepts of taxation (Categories of Assets/Liabilities/Incomes/Expenditures/Wealth/Re-Conciliation or Adjustment of Un-Reconciled amount) for filing income tax returns?
- 63) Do you think that tutorials should also be developed to educate taxpayers about relevant concepts of taxation (Categories of Assets/Liabilities/Incomes/Expenditures/Wealth/Re-Conciliation or Adjustment of Un-Reconciled amount) for filing income tax returns?
- 64) Do you find these tutorials effective for learning?
- 65) Do you think the Tax Asaan app provides complete functionality/features for filing income tax returns?
- 66) How do you think the FBR Tax Asaan app can be improved?
- 67) Are you aware that you can use the FBR helpline for e-filing-related queries? 051-111772772.
- 68) Have you ever used the FBR helpline for any tax e-filing queries?
- 69) If yes, please share your experience.
- 70) Are you aware of the availability of taxpayer facilitation centres for filing income tax returns?

- 71) Do you know that individual taxpayers can get help filing income tax returns at such centres?
- 72) Was the shift from manual tax filing to electronic tax filing abrupt for taxpayers?
- 73) In your opinion, how has the shift from manual to electronic tax filing affected you?

APPENDIX II: Interview Guide for Non-Taxpayers

- 1) If not filing yourself, who files your income tax returns on your behalf?
- 2) Do you spend money on filing income tax returns every year through agents?
- 3) If spent, please share the amount.
- 4) If spent, do you think this cost is high or low?
- 5) If the cost is high, do you think it motivates you to try to learn the tax filing system yourself?
- 6) If the cost is low, do you think it would demotivate you from trying to learn the tax filing system yourself?
- 7) Do you think the cost is justified?
- 8) Do you think this cost is reasonable for the service provided by the agent?
- 9) If not filing yourself, do you find the collection of these supporting documents for an agent easy for filing your income tax returns every year?
- 10) Once forwarded, are you concerned about the safety/privacy of your financial documents with the agent?
- 11) Are you present while your income tax return is being filed on your behalf by your agent?
- 12) If present, does your agent seek any clarifications/information from you while filing your income tax return on your behalf?
- 13) If yes, can you provide such clarifications or information?
- 14) Do you understand or try to understand how your agent is filing your income tax return on the FBR website?
- 15) Do you try to learn or ask questions from your agent about filing an income tax return on the FBR website?



- 16) If yes, are those questions answered by the agent filing your income tax return on the FBR website?
- 17) While observing your agent filing for you, do you find the income tax filing system complicated?
- 18) If yes, does this perception of complexity demotivate you from trying to learn the tax filing system?
- 19) After an income tax filing in your presence, are you confident that your agent has filed the correct income tax return on your behalf?
- 20) If no, do you fear any consequences of the wrong income tax filing?
- 21) After your income tax filing in your absence, are you confident that your agent has filed the correct income tax return on your behalf?
- 22) If no, do you fear any consequences of the wrong tax filing?
- 23) Are you aware of the penalties applicable in case of wrong income tax filing?
- 24) Is it important for you to file correct income tax returns, or is just fulfilling the requirement of filing tax returns enough?
- 25) Are you aware that you can be selected for audit for your completed income tax returns?
- 26) Have you ever been selected for an audit of your completed income tax returns?
- 27) If selected, please share your experience of the income tax return audit.
- 28) Do you feel any need/want/motivation to learn how to file income tax return yourself?
- 29) Do you think that you can learn how to file an income tax return for yourself?
- 30) Have you ever tried to learn how to file an income tax return?
- 31) If tried, what were the significant barriers to your learning?
- 32) If not tried, what were the primary reasons for deciding not to learn how to file an income tax return?
- 33) Are you aware of the availability of taxpayer facilitation centres for filing income tax returns?
- 34) Do you know that individual taxpayers can get help filing income tax returns at such centres?

Appendix III: Interview Schedule for FBR Officers

- 1) Please share a brief history of the FBR income tax filing system.
- 2) Is manual income tax filing still possible?
- 3) Was the shift from manual tax filing to electronic tax filing abrupt for taxpayers?
- 4) In your opinion, how has the shift from manual to electronic tax filing affected taxpayers?
- 5) Please share about recent improvements/reforms in the FBR income tax filing system (IRIS 2.0 e-filing software).
- 6) Have such improvements increased the number of income tax filers?
Yes/No
- 7) If yes, how much?
- 8) If No, why?
- 9) In your opinion, how can FBR's income tax filing system (IRIS e-filing software) be improved?
- 10) Please share about recent improvements/reforms in the FBR Tax Asaan app.
- 11) Have such improvements increased the number of income tax filers?
Yes/No
- 12) If yes, how much?
- 13) If No, why?
- 14) In your opinion, how can the FBR Tax Asaan app be improved?
- 15) How can the existing tutorials to facilitate taxpayers' filing income tax returns be improved?
- 16) How would you respond that existing tutorials share fundamental steps for filing an income tax return?
- 17) How would you respond that existing tutorials miss important steps for filing income tax returns?
- 18) How would you respond that existing tutorials share incomplete information for filing income tax returns?
- 19) How would you respond that existing tutorials do not share sufficient information/explanation about all sections/sub-sections (Wealth Statement, Personal Expenditures, Assets, Liabilities) applicable to taxpayers filing income tax returns?



- 20) How would you respond that existing tutorials do not share relevant information/explanation (types, categories) to be added in all sections/sub-sections (Wealth Statement, Personal Expenditures, Assets, Liabilities) applicable to taxpayers filing income tax returns?
- 21) How would you respond that existing tutorials are not easy to follow for filing income tax returns?
- 22) Do you think that taxpayers know about the list of supporting documents needed for filing income tax returns?
- 23) Do you think that tutorials should also be developed to educate taxpayers about the list of supporting documents needed for filing income tax returns?
- 24) Do you think that taxpayers know about relevant concepts of taxation (categories of Assets/Liabilities/Incomes/Expenditures/Wealth/Re-Conciliation or Adjustment of Un-Reconciled amount) for filing income tax returns?
- 25) Do you think that tutorials should also be developed to educate taxpayers about relevant concepts of taxation (categories of Assets/Liabilities/Incomes/Expenditures/Wealth/Re-Conciliation or Adjustment of Un-Reconciled amount) for filing income tax returns?
- 26) Please share information (improvements/reforms) about the availability of taxpayer facilitation centres for filing income tax returns.
- 27) Can individual taxpayers get help for filing income tax returns at such centers?
- 28) Do you think most taxpayers are aware of the availability of taxpayer facilitation centers for filing income tax returns?
- 29) If no, what steps have been taken to improve awareness about the availability of taxpayer facilitation centres for filing income tax returns?

ANALYSIS OF TAX EXPENDITURES IN PAKISTAN

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ABSTRACT

Tax expenditure, a key tool of fiscal policy, refers to revenue losses caused by tax preferences such as exemptions, credits, deductions, or preferential rates given to specific sectors or groups. These measures often aim to support social welfare or particular industries. However, they can distort market forces, leading to inefficient resource allocation and benefiting certain groups. This study estimates tax expenditures on sales tax for both goods and services, as well as customs duties, including other trade-related taxes like regulatory duties. Using Input-Output (I-O) table data and the RA-Gap model, the study finds that sales tax expenditures from imports total Rs. 872.96 billion, with an additional Rs. 2,663.71 billion from domestic goods. Customs-related tax expenditures amount to Rs. 599.02 billion for 2023. The primary beneficiaries include the export sector, especially the textiles, food, and pharmaceutical industries, along with households, embassies, and non-profit organisations. At the federal level, most tax expenditures are introduced via Statutory Regulatory Orders (SROs) without clear objectives, leading to inefficiencies. Since the sales tax on services is a provincial matter, the tax structure of Punjab and Sindh provinces was also examined. The review indicates there may be no explicit tax expenditures from the sales tax on services. However, other issues within the sales tax structures create impacts similar to tax expenditures. The study suggests reducing tax expenditures and aligning the remaining ones with specific objectives, enabling evaluation through cost-benefit analysis to decide their continuation or removal.

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1. INTRODUCTION

Fiscal policy is one of the tools available to policymakers, which can be used to boost the overall economy or specific sectors within it. It can also be employed to stabilise an overheating economy or to regulate the growth of specific industries. Taxes are a vital instrument of fiscal policy and are often utilised for these purposes. Governments occasionally offer preferential tax treatment to particular sectors or groups through exemptions, tax credits, exclusions, deductions from gross income, or by applying a preferential tax rate. The aim is to give a boost to these sectors or to regulate their activity. The potential revenue lost due to such measures is known as the tax expenditure. This provides an alternative to supporting specific sectors or groups through subsidies, increased public spending, or other measures. Therefore, tax expenditure acts as a tool for the government to achieve its policy objectives related to social welfare or to favour specific individuals or groups (often implying rent-seeking) through the tax system.

According to economic theory, optimal utilisation of resources requires that all economic agents or sectors of production be treated equally. This would enable market forces to allocate resources freely, resulting in optimal resource distribution and maximising social welfare. Conversely, if certain business activities or groups receive special treatment that alters their cost of doing business, this restricts the role of market forces in resource allocation, leading to limited market competition, misallocation, and welfare loss.

Tax expenditures are also a form of distortion that increases complexity in the tax system, restricts the tax base, makes compliance more difficult, reduces government revenues, and worsens inequalities. Furthermore, because tax expenditures are not scrutinised as closely as regular budget spending, the public, including taxpayers, often perceives these special benefits as politically motivated to favour particular groups. This perception is reinforced by the fact that most of these expenditures are introduced through the Statutory Regulatory Orders (SROs), which are issued by government ministries without prior parliamentary approval.

This perception erodes transparency, damages confidence in the tax system and the government. A drop in revenue caused by an increase in tax expenditures may require raising the tax rate, which ultimately burdens those already paying taxes. This incentivises individuals and firms to either shift to 'preferred' sectors or evade taxes.

Pakistan's fiscal deficit has been growing for some time; one of the primary causes is low revenue, as reflected in the country's declining tax-to-GDP ratio. High tax expenditures are a primary reason for the low tax collection in Pakistan. Exemptions, preferential tax rates, and exclusions are pretty standard in Pakistan's tax system, resulting in some industries thriving while others remain at a disadvantage.

The tax expenditures in FY 2020-21, as estimated by the FBR, amounted to Rs. 1,482.3 billion, nearly one-third of the total tax revenues collected by the FBR. 49.9% of these expenditures derive from sales tax, 27% from income taxes, and 23.1% from customs duties. The substantial sum of tax expenditures still does not account for the preferential treatment of capital gains taxes on real estate. Most of these expenditures were permitted to attract investments. The actual impact of tax expenditures on investment has yet to be investigated.

Objective of the Study

Objectives of the study are:

1. To estimate tax expenditures at the federal level, consider three broad categories of taxes: income tax, sales tax, customs duty, and other trade-related taxes.
2. To document the tax concessions, the sectors that enjoy their benefits, and the stated purpose of such tax expenditures.

We had planned to analyse the tax expenditures related to income tax as well; however, the idea was abandoned due to data constraints — the FBR did not share the data on tax returns. Therefore, the analysis is limited to tax expenditures related to sales tax and customs duty, which include additional customs duty and regulatory duty.

Significance of Study

Rising budget deficits despite low social sector spending highlight the need for fiscal discipline. Pakistan has been struggling to increase its tax-to-GDP ratio to match regional standards. In this context, analysing tax expenditures could assist the government in boosting tax revenue without raising tax rates. Furthermore, after the Eighteenth Amendment, sales tax on services and property tax came under the jurisdiction of provincial tax authorities. Thus, estimating tax expenditures at the provincial level will help provinces raise

more revenue and support increased provincial expenditure. Additionally, evidence on the effectiveness of tax expenditures will aid policymakers in deciding whether to utilise them as a policy tool in the future.

Key Findings

Based on our estimates for FY2023, using I-O table data, import data, and the RA-Gap model, the tax expenditures on sales tax (including additional sales tax) amount to Rs 872.96 billion in FY2023. This includes Rs. 638.81 billion spent on sales tax, with the remaining covering expenditures on additional sales tax. The expenditure on sales tax for domestic goods is Rs. 2,663.71 billion. Tax expenditures under Customs duty total Rs. 599.02 billion in FY 2023. Businesses, especially in the export sector such as textiles, food, and pharmaceuticals, are the primary beneficiaries of these tax expenditures, along with households, embassies, and non-profit organisations. Most of these expenditures are introduced through SROs with no clear objectives or targets. Therefore, we suggest that tax expenditures be aligned with specific objectives to enable their effectiveness to be evaluated. A cost-benefit analysis of these measures will support policymakers in deciding whether to continue with particular tax expenditures.

2. LITERATURE REVIEW

The term “Tax expenditure” was first introduced by [7] to support government intervention in the economy through public spending rather than through preferential tax treatment. Bratić (2006) provides an overview of the diverse forms of tax expenditures, including reliefs, tax deductions, tax allowances, tax exceptions, and special rates of taxation, along with their definitions and calculation methods. There is no single, all-encompassing definition of tax expenditures. They cover the entire fiscal system and, therefore, are channelled through different forms of taxes, with the relative importance of each channel varying from country to country (Redonda, 2016). To determine whether a specific tax measure constitutes a tax expenditure, one must identify the typical tax structure from which the tax measure in question deviates. Tax expenditures can induce a variety of behavioural changes among taxpayers compared to direct spending (OECD, 2004). This has led to a debate about the method for evaluating the impact of tax expenditures. Given Pakistan’s context, for our analysis, we define tax expenditures as ‘loss of potential tax revenue to the central government by reducing the tax base or reducing the tax due’.

Tax expenditures have both positive and negative effects, necessitating a clear system for granting them (if at all), while also overseeing their unchecked growth. Although tax expenditures reduce the central government's budget size, they are not part of the formal budgetary framework, nor are their levels monitored, controlled, or audited. Additionally, these expenditures are not governed by any contract. Limited data and understanding of the nature and scale of tax expenditures have hindered detailed analysis by researchers and policymakers. There has been little economic evaluation of tax expenditures to guide decision-making. This suggests that the system has mostly operated based on beneficiary-driven demand. Collins & Walsh (2010) emphasise that tax expenditures face inherent issues, and if these are not accurately measured and managed, they can cause systemic deterioration of the tax system. Galle (2012) contends that the political process fosters inefficiency due to tax expenditures.

Gupta (1984) argues that tax expenditures can work provided the public has more information about the tax system and the tax laws. Moreover, the prevalence of conditions that enable fiscal policy, especially taxation, to discourage unproductive sectors and encourage productive ones, is also considered crucial by Gupta for tax expenditure to be effective. Howard (1995) tested the effectiveness of tax expenditures against public spending; however, could not conclude anything significant. This suggests the need for more empirical analysis on the subject. Dharmapala (1999) investigated the impact of tax expenditures relative to subsidies and concluded that tax expenditures lower the subsidy level in several situations. However, the social welfare of the tax expenditures is greater than that of subsidies only under some restrictive conditions. Brixi & Swift (2004) emphasise that the increasing magnitude of diverse tax expenditures presents significant challenges in their effective administration and documentation. This challenge is particularly pronounced in countries lacking systematic recording of tax expenditures. In such countries, revenue losses often go unreported, and doing a cost-benefit analysis of tax expenditures is difficult due to a lack of data.

Auerbach & Hassett (1992) argue that tax expenditures through the user cost of capital significantly encourage non-residential fixed investment in the United States. Button (2021) and Arauzo-Carod et al. (2010) show that tax incentives can substantially influence decisions regarding industrial location. Shabbar et al. (2019) observe that tax expenditures boost investment levels in Pakistan.

Ahmed (2001) and Fuest & Riedel (2009) find that tax expenditures allow room for tax evasion and tax avoidance. Jen (2002) concludes that the overtime increase in tax expenditures in Michigan, USA, distorted markets. Metcalf (2008) also advocated against using tax expenditures as a policy tool, arguing that these distort the incentive system. Ahmed & Ather (2014) studied tax expenditures in Pakistan and concluded that high tax expenditures not only cause the fiscal deficit to increase but also fuel inflation.

Proponents argue that tax expenditures support a wide range of economic, social, and environmental policy objectives, including job creation, innovation, education, and reducing inequality. They also claim that these tax benefits internalise negative and positive externalities, making them a vital tool for correcting market failures. Tax expenditures can also benefit from lower administrative costs compared to direct spending programmes, where ministries need to allocate resources to implement schemes in cash or kind (Redonda, 2016). Conversely, critics question the effectiveness and efficiency of these instruments in achieving their stated aims. They also argue that tax expenditures deplete public resources needed for other policy objectives. Altshuler & Dietz (2008), Surrey (1970), and Thuronyi (1988) argue that tax expenditures exacerbate inequality and lead to market distortions. Fuest & Riedel (2009) and Kahn (1979) refer to these expenditures as hidden expenditures because they are invisible; they evade scrutiny, unlike their counterparts, such as subsidies.

Tax expenditures have negative aspects, mainly because they tend to undermine the neutrality of the tax system. An ideal tax system preserves neutrality by having a broad tax base, free from tax expenditures, and applying a uniform tax approach. Therefore, maintaining the neutrality of the tax system involves avoiding the use of tax expenditures (Craig et al., 2001). It is also beneficial for all parties involved in taxation—both tax authorities and taxpayers—that taxes are collected as cost-effectively as possible, without unnecessary complexity for either side.

This report makes a significant contribution to the literature in several ways. Firstly, the existing literature provides a broad overview of sectors that benefit from tax expenditures, but does not specify which particular heads within each sector benefit and to what extent. This report provides a more detailed understanding of how benefits are distributed across different areas. By identifying concentrations of tax expenditures, we offer policymakers valuable insights to optimise resource allocation. Secondly, the report presents a historical list of all the SROs issued to date, including any associated sunset clauses. We have also mapped the SROs and observed that many

continue without a clear rationale. This historical perspective helps us identify trends, patterns, and changes in the tax expenditures. Understanding this context enables us to evaluate the effectiveness and sustainability of these policies more effectively. By examining the exemptions and their continued rationale, we highlight instances where SROs may no longer align with their original goals or may be causing unnecessary distortions in the economy. This analysis provides a solid basis for informed policy decisions regarding the renewal or termination of these exemptions.

We also clearly distinguish the categories of customs duties that are exempt from taxation due to international agreements, such as those listed in Chapter 99 of the Harmonised System and those covered by Free Trade Agreements (FTAs) or Preferential Trade Agreements (PTAs). This distinction is vital for understanding potential sources of tax revenue. In contrast to non-tappable duties, we identify the range of customs duties that are theoretically tappable, including those not covered by international agreements. We outline the significant challenges that have obstructed the effective taxation of customs duties, despite their theoretical tappareability. These challenges often originate from vested interests advanced through political pressures or other rent-seeking means. By identifying and analysing these obstacles, our report provides insights into the factors that have hindered the full realisation of the revenue-generating potential of customs duties.

To sum up, the estimate of tax expenditure reflects the potential for increasing tax revenue by reducing, if not eliminating, the scale of tax expenditures. The analysis delineates the potential tax base, which provides policymakers with valuable information necessary to enhance tax revenue.

3. RESEARCH METHODOLOGY

There are three approaches to measuring the tax expenditures. These are:

- a) Tax Revenue Foregone
- b) Tax Revenue Gain
- c) Outlay Equivalent Method

Tax Revenue Foregone: This approach treats tax expenditures as the difference between tax liability in the absence of a specific tax expenditure and tax liability after accounting for the relevant tax expenditure. This is the

simplest method for calculating tax expenditures. However, the approach assumes no dynamic tax effect, no interdependence, and constant compliance and enforcement.

Tax Revenue Gain: This approach provides an ex-ante estimate of the additional revenue that would be generated by eliminating a given tax expenditure while accounting for behavioural responses. It requires a good understanding of taxpayers' behaviour, data on elasticities, and general equilibrium-based models. However, the availability of the data needed for estimation under the approach presents a significant challenge.

Outlay Equivalent Method: Under this approach, the tax expenditure associated with a specific provision is equal to the spending required to provide an equivalent subsidy outside the tax system. This method does not consider factors such as taxable capacity that influence the actual tax liability faced by an agent (Brys et al., 2020).

Given the scope of our study and data limitations, we will use the 'tax revenue foregone' approach to estimate the tax expenditures. Under this approach, identifying the benchmark rate is typically the starting point of the tax expenditure analysis. The benchmark tax applies to all taxpayers and includes the rate structure, accounting conventions, the deductibility of compulsory payments, provisions to facilitate administration, and provisions related to international obligations (Kraan, 2004). Deviations from the benchmark tax provide an estimate of the tax expenditure.

4. DEFINITION OF TAX EXPENDITURE

Generally, tax expenditures refer to exemptions, concessions, and other favourable treatments granted by law to specific individuals, firms, groups, sectors, or industries, which enable them to pay less tax or even no tax at all. However, there is no universally agreed-upon definition of tax expenditures. As documented by Ahmed & Ather (2014), in Canada, tax expenditures are defined as deviations from the benchmark tax. In contrast, in France, they are described as legal or statutory measures that result in lower tax revenue for the state compared to applying the benchmark rate or norm. In the USA, tax expenditures are defined as 'revenue losses attributed to provisions of the federal tax laws which allow a special exclusion, exemption, or deductions from gross income, or which provide a special credit, a preferential rate of tax, or a deferral of tax liability'.

For this study, we follow the definition of tax expenditures provided by Ahmed & Ather (2014) which states that *“tax expenditures are the tax revenue loss resulting from those preferential provisions of the law that offer certain taxpayers or sectors concessions not available to others, leading to a decrease in tax revenue compared to what would otherwise be collected.”*

According to this definition, if a concession or exemption is available to all economic agents, then the resulting revenue loss will not qualify as a tax expenditure. However, if a concession, exemption, or preferential treatment is available to specific individuals, sectors, businesses, sources of income, areas, certain goods or services, etc., then the revenue foregone will be recorded as tax expenditures.

There are three significant sources of tax revenue in Pakistan: income tax, sales tax, and customs duty. Income tax encompasses taxes levied on the income of individuals, partnerships, and corporations. Sales tax is an indirect tax levied on goods (by the federal government) and services (by provincial governments), while customs duty is the tax imposed on imports.

5. COMPUTING TAX EXPENDITURES

Tax Expenditures on Customs Duty

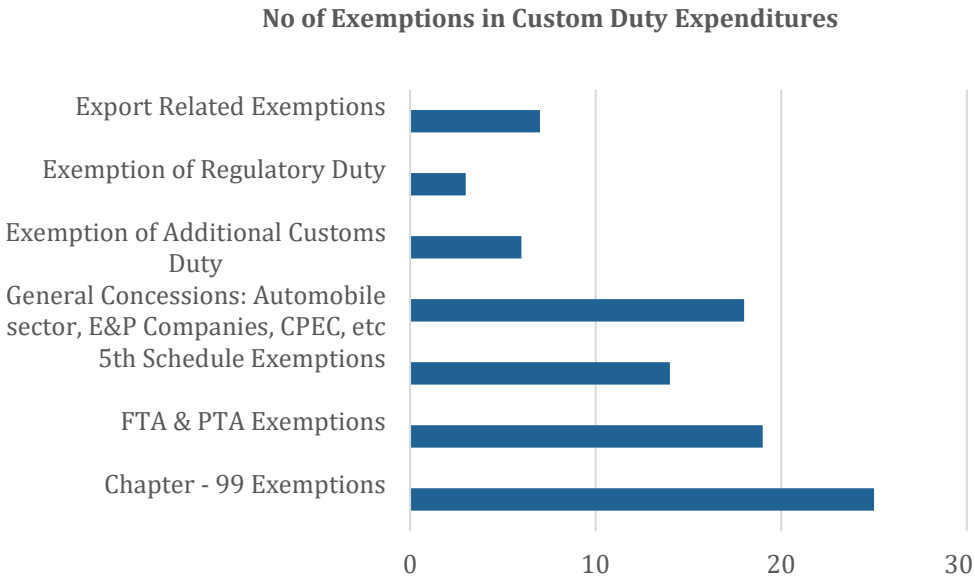
Custom duties are among the taxes imposed on imports. Pakistan’s current tariff system is based on the principle of cascading – raw materials are charged at a lower rate, while finished goods are subject to higher rates. Additionally, the variation in customs duty rates is designed to protect local industries. For instance, if a raw material is available locally, the tariff rate on its import is generally higher. Exemptions, concessions, or special treatment in customs duty are granted through Statutory Regulatory Orders (SROs), specific classifications listed in Chapter 99 of the Pakistan Customs Tariff, and the tariff rates outlined in the Pakistan Customs Tariff. Using these provisions, tax expenditures on Customs duty have been estimated at Rs. 521,704 million for FY2021-22. These estimates are based on data from the Goods Declaration (GD).

The difference in customs duty rates imposed on the import of a good from various countries can also result from trade agreements between two nations, such as the Pakistan-China Free Trade Agreement. Another reason for the variation in duty rates could be the granting of special concessions or

exemptions to charitable organisations, such as the Edhi Welfare Trust, or on specific goods required during emergencies, such as supplies needed for the relief and rehabilitation of flood-affected populations. Additionally, such exemptions may be granted to diplomats or individuals associated with the United Nations. Details of the tax exemptions under the SROs, the 5th schedule, and Chapter 99 are provided in the appendix Tables 1A and 2A.

Figure 1 shows the number of customs-related tax expenditures in FY 2023. Exemptions granted under Chapter 99 are the highest, amounting to twenty-five (25), followed by exemptions arising from FTAs and PTAs. The total number of exemptions, or concessions on customs duty, is ninety-two (92).

Figure 1: Number of Custom Duty Expenditures in FY 2023



Note: Authors' calculation, based on Customs Tax Laws

To calculate tax expenditures under customs duty, we used data from Pakistan Customs and applied statutory rates as benchmarks. The difference between the tax at the statutory rate and the effective rate is recorded as the tax expenditure. The results are shown in the last column of Table 1 below—the remaining columns present customs-related tax expenditures as outlined in the FBR's tax expenditures reports.

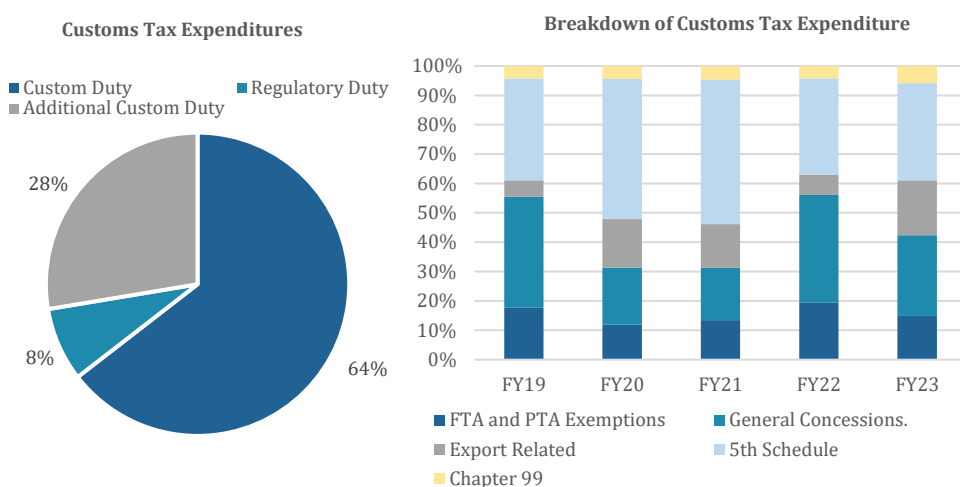
Table 1: Tax Expenditures under Customs (Rs. in billion)

	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Tax Expenditures under Customs	253.11	287.8	342.89	521.7	599.02
Percentage of FBR Collection	6.60%	7.20%	7.20%	8.50%	8.50%
Percentage of the total Tax Expenditures	22%	21.90%	23.10%	23%	...

Source: Authors' calculations (for FY 2023) and GOP (various issues).

Our computations, presented in Table 1, show that tax expenditures on account of customs duties have increased over the years, both in absolute and relative terms. Further breakdown of these tax expenditures is shown in Figure 2.

Figure 2: Breakdown of the Customs Tax Expenditures



Source: Authors' calculations.

Pakistan has entered into trade agreements with Sri Lanka, China, Indonesia, Malaysia, and Mauritius. Additionally, there is a trade agreement among SAARC nations. Imports from all the aforementioned countries are either wholly or partly exempt from import taxes. Pakistan has also negotiated trade agreements with Turkiye and Uzbekistan. Under these agreements, import taxes have been reduced for imports from these countries (as per SRO 502(I)/2023, issued in April 2023, and SRO 329(I)/2023, issued in March

2023, respectively). Due to Pakistan's difficult economic situation, imports were restricted through various administrative measures during FY 2023. As a result, the proportion of tax expenditure related to trade agreements has decreased (Figure 2). With improved economic conditions and the easing of administrative import restrictions, tax expenditures associated with trade agreements are expected to increase in the future.

Floods caused havoc in Pakistan in 2022. To undertake flood relief activities as cost-effectively as possible, imports intended for flood relief were exempted through SRO 1638(I)/2022. Importers could access this concession upon authentication by national or provincial disaster management authorities that the imported goods were intended for flood relief. Similarly, exemption from customs duty was granted on certain items, mainly edible products, imported from Afghanistan through SRO 968(I)/2022. The specific purpose of this concession is not explicitly stated; however, since these goods include coal, marble, sulphur, seeds, and containers, the aim may be to obtain cheaper raw materials from Afghanistan.

General concessions to the automobile sector, oil, and gas exploration and production industries have persisted as part of the tax expenditures for several years. However, our automobile industry has failed to make any impact in the international market. The quality of locally available automobiles leaves much to be desired, while their prices remain high.

Several industries with investments under the China-Pakistan Economic Corridor (CPEC) have also benefited from tax exemptions. Under CPEC, numerous energy and infrastructure-related projects have helped Pakistan overcome its energy crisis and build a network of roads; however, on the industrialisation front, progress has not met expectations. Overall, the CPEC has failed to deliver the prosperity envisaged at its outset.

Considering the need for relief and rehabilitation work in flood-affected areas, as well as the importance of efforts to adopt and mitigate the impact of climate change, tax concessions have been extended to relief activities. Once the flood relief and rehabilitation works are completed, it is expected that tax expenditures under this category will decrease. Other concessions, exemptions, and preferential treatments have also been part of tax expenditures on customs duty in the past.

Mapping of SROs

We have analysed the SROs issued over multiple years, using the FBR's various Tax Expenditure reports and other sources. As shown in the table below, most of the SROs have remained unchanged over the years. This indicates that specific segments continue to benefit without careful reassessment of the need for exemptions. Furthermore, none of the SROs explicitly states the purpose of the given tax expenditures. The mapping of the SROs is presented in Table 2 below.

Table 2: Mapping of SROs

	2019	2020	2021	2022	2023
558(I)/2004	ü	ü	ü	ü	Ü
1296(I)/2005	ü	zero	ü	ü	Ü
1274(I)/2006	ü	ü	ü	ü	Ü
1640(I)/2019		ü	ü	ü	Ü
1261(I)/2007	ü	ü	ü	ü	Ü
741(I)/2013	ü	ü	ü	ü	Ü
280(I)/2014	ü	ü	ü	ü	Ü
894(I)/2006					Zero
1151(I)/2007	ü	zero	zero	zero	Zero
497(I)/2009					Zero
329(I)/2023					Zero
502(I)/2023					Ü
268(I)/2015	ü	ü	ü	ü	Ü
565(I)/2006	ü	ü	ü	ü	Ü
499(I)/2013	ü	ü	ü	ü	Ü
678(I)/2014	ü	ü	ü	ü	Ü
107(I)/2019	ü	zero	zero	zero	Zero
48(I)/2018	ü	zero	zero	zero	Zero
642(I)/2016	ü	ü	zero	ü	Ü
644(I)/2018	ü	ü	ü	ü	Zero
40(I)/2017	ü	ü	zero	zero	Zero
655(I)/2006	ü	ü	ü	ü	Ü
656(I)/2006	ü	ü	ü	ü	Ü
41(I)/2009	ü			ü	Ü
39(I)/2017	ü				Ü
533(I)/2021					Zero
73(I)/2023					Ü
1638(I)/2022					Ü
450(I)/2001		ü	ü	ü	Ü
327(I)/2008		ü	ü		Ü
326(I)/2008					Zero

	2019	2020	2021	2022	2023
492(I)/2009		ü	ü		Ü
659(I)/2007	ü	ü	ü	zero	
30(I)/2017				zero	
235(I)/2020		ü	ü		
318(I)/2020		ü	ü		
556(I)/2020		ü	ü		
558(I)/2020		ü	ü		
559(I)/2020		zero	zero		
1251(I)/2020			ü		
450(I)/2008	ü		ü		
121(I)2014		ü			
630(I)/2018	ü				
108(I)/2019	ü				
640(I)/2018	ü				

Notes: An empty cell means that the SRO did not appear, a tick mark means some tax expenditures were noted under a particular SRO, whereas 'zero' means it was mentioned in the Tax Expenditure Report; however, no tax expenditure was reported against it.

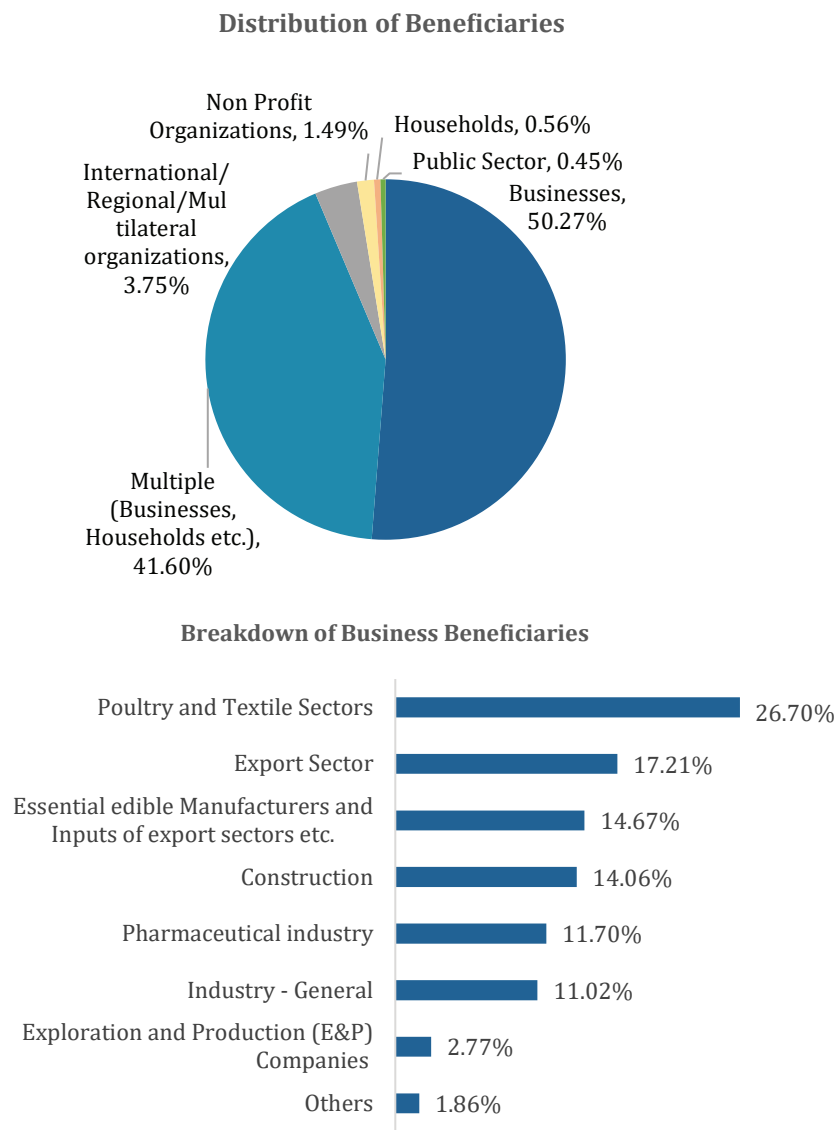
Sources: Authors' calculations and GOP (various issues).

Beneficiaries of Customs Tax Expenditures

We have utilised global tax expenditure data to match the types of tax expenditures with their respective beneficiaries. The beneficiaries are classified into several categories, including households, businesses, international organisations, the public sector, non-profit organisations, and a miscellaneous category comprising multiple beneficiaries. The miscellaneous category includes persons making donations to the listed companies, investors investing in debt or money market mutual funds and collective investment schemes, importers of old and used cars, foreign currency account holders, diplomats and diplomatic missions, manufacturing (industrial inputs), sports boards, and the general populace (households).

In line with expectations, businesses, followed by households, are the primary beneficiaries of the tax expenditures. These two sectors together receive over 90% of the tax expenditures. Among businesses, the poultry and textile sectors, as well as manufacturers of food products, construction, pharmaceuticals, and export industries, are the primary recipients (Figure 3).

Figure 3: Beneficiaries of the Tax Expenditures in Customs Duty



Source: Authors' calculations.

Reining the Tax Expenditures in Custom Duty

To rein in the rising tax expenditures on customs duty, the government should concentrate on ‘General Concessions’ and concessions granted under the 5th Schedule, as these are manageable. Together, these concessions account for 61% of the tax expenditures on customs duty.

Machinery covered under tax expenditure includes basic agricultural equipment, such as ploughs, rotavators, and reapers, as well as tubes, pipes, and refrigerating machines for greenhouse gases, which are tax-exempt. Basic livestock machinery, like milk chillers, sheds, and fans, is taxed at a reduced rate of 2% to 3%. As we know, income from agriculture is not subject to taxation. To make matters worse for society, the agricultural sector benefits from tax expenditures, yet we rarely see any value addition in the sector. This highlights the need to eliminate tax expenditures on the aforementioned agricultural items.

Apart from the agriculture sector and machinery, healthcare equipment also benefits from tax expenditures. These include operating tables, cooling cabinets, refrigerated liquid baths, and insulin syringes, among others, which are either tax-exempt or taxed at a lower rate. These items are essential for establishing any healthcare facility, and taxing them would increase out-of-pocket health expenses. Similarly, items listed in Tables A and B of Part II of the 5th Schedule are basic inputs used by the pharmaceutical industry. Removing tax expenditures on these items will also raise out-of-pocket costs. Such a withdrawal may have significant economic and political repercussions, making it a difficult decision, at least in the initial phase of reducing tax expenditures.

Besides the machinery used in agriculture and the health sectors, some machinery and basic raw materials imported by the sugar, bakery, textiles, aviation, automobile, energy, export, and public works sectors also benefit from tax expenditures. Given the health consequences of overconsumption of sugar and bakery items, as well as the protectionism that the sugar industry enjoys, withdrawing these tax expenditures is worthwhile. Similarly, the concessions given to other industries including automobile, energy, packaging, etc., can also be withdrawn. If this is a tough decision at this point, it is worthwhile to assign some productivity targets to such industries, and the concessions should be linked to achieving these targets.

Tax Expenditures on Sales Tax on Goods

Sales tax comprises the tax levied on the supply, import, or production of taxable goods and services. Under the 18th Amendment, sales tax on services is a provincial matter in Pakistan. Therefore, we will discuss the sales tax on goods here and address the sales tax on services separately.



The sales tax paid at the point of purchase can be offset as input tax against the output tax, provided that the input goods bought are taxable. The adjustment is permitted whether the goods are imported or locally manufactured. An examination of the adjustment process reveals that the sales tax operates on a value-added basis, commonly referred to as the value-added tax (VAT).

The main aim of implementing a value-added tax (VAT) system is to generate revenue reliably and efficiently. Its structure is solid, based on end-user consumption, which guarantees a steady flow of income that is least impacted by economic fluctuations. Furthermore, VAT remains neutral, as it does not affect individual economic decisions since it is uniformly applied to both domestic and imported goods. As a result, it does not interfere with international trade patterns. Additionally, VAT is different from income tax or corporate profit tax, which influence income redistribution and corporate investments. Therefore, an effective VAT system should levy taxes fairly on all products and services, following the destination-based taxation model.

Kind of Expenditures Allowed on Sales Tax on Goods

As is customary in many countries, exports are zero-rated; however, in Pakistan, certain other goods are also zero-rated. Furthermore, various exemptions and concessionary rates have been introduced through the 5th, 6th, 8th, and 9th schedules of the Sales Tax Act, 1990. These provisions are discussed in detail in the following sections. A list of all such tax expenditures is provided in the appendix.

Zero Rating

Typically, exports are zero-rated, meaning no sales tax is charged on these goods. In this case, the sellers are permitted to claim the input tax. Apart from exports, goods that the government considers important for the country's law and order, national security, food security, and disaster management, among other things, may also be zero-rated. Additionally, goods covered under bilateral or multilateral trade agreements may also be classified as zero-rated.

Section 4 of the Sales Tax Act 1990 and the 5th Schedule cover zero-rated provisions. The goods included under this section of the Act consist of consumption goods for diplomats, stationery, art and drawing supplies, food items such as milk, petroleum products, and raw materials for exporters in the export processing zones and the Gwadar Free Zone.

Exemptions

Goods covered by full exemptions from sales tax do not attract any sales tax, just like zero-rated goods. However, a key difference is that sellers of 'exempt' goods cannot adjust for input taxes. Therefore, the contribution to tax expenditures in the case of exemptions is less than in the zero-rating case, particularly for locally manufactured goods.

Sales tax exemptions are mentioned under section 13 of the Sales Tax Act 1990 and in the 6th Schedule. Exemptions are also allowed for purposes of law and order, national security, food security, addressing natural calamities, or due to trade agreements with trading partner countries.

Reduced Rates

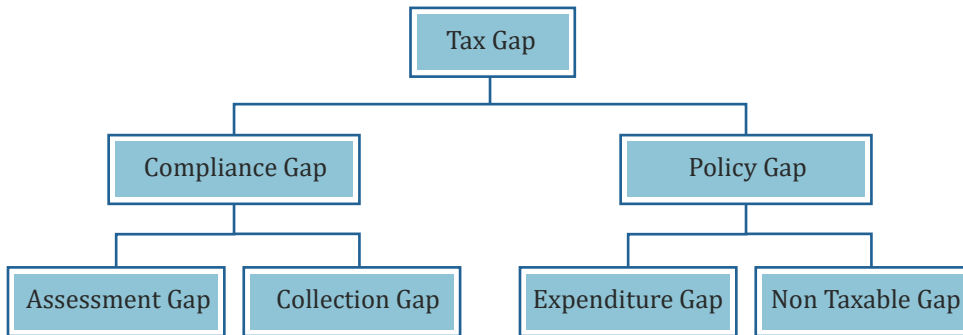
Considering national interests and the country's needs, the Federal Government may also lower the sales tax on certain items (it can also apply a higher rate to some items, but that does not qualify as a tax expenditure). As previously mentioned, the amount of sales tax forgone due to reduced rates compared to the standard benchmark rate is classified as a tax expenditure.

Exclusions

The Sales Tax Act 1990, under the 12th schedule, includes provisions for exclusions from the 3% minimum value-added sales tax on commercial imports. The revenue lost due to such exclusions is classified as tax expenditures.

Measurement Methodology

The data available in the sales tax returns filed by businesses with the FBR contains information that can be used to estimate sales tax expenditures. We were unable to obtain this data from the FBR; therefore, we were unable to calculate sales tax expenditures using the sales tax return data. Given the data constraint, to estimate the tax expenditure on sales tax on domestically produced goods and services, we opted to use an alternative method – the Revenue Administration Gap (RA-Gap) model developed by the International Monetary Fund (IMF). This model is used to estimate the VAT gap. The tax gap refers to the difference between the potential revenue that would result if all relevant activities, incomes, or assets were taxed at the standard rate, with all taxpayers fully compliant, and the actual revenue collected on an accrual basis (Hutton, 2017; Kloeden, 2014). This tax gap is further classified, as shown in the figure below.

Figure 4: Categories of Tax Gap

Source: Authors' computations.

The assessment gap refers to the tax gap caused by the failure to assess an economic activity. The collection gap indicates the inability to collect the assessed value-added tax (VAT).

To differentiate between what can be taxed but is exempt and what cannot be taxed at all, it is important to understand the normative policy and the comprehensive policy. The normative policy framework encompasses all elements of the tax base that could genuinely be taxed, whereas the comprehensive policy framework includes all elements that are taxable in theory (Thackray, 2017).

The tax expenditure gap results from the difference between the actual tax policy structure and the ideal or normative tax policy structure. Conversely, the non-taxable gap arises from the discrepancy between the normative policy structure and the comprehensive policy structure.

Given the foregoing, we have:

PV_1 – potential VAT collection using the current tax structure

PV_2 – potential or possible VAT collection under a normative tax structure, and

PV_3 – possible or potential VAT collection through a comprehensive tax structure.

And

$\text{Tax Gap} = PV_3 - \text{accrued VAT}$

$\text{Compliance Gap} = PV_1 - \text{accrued VAT}$

$$\text{Assessment Gap} = PV_1 - \text{VAT assessed}$$

$$\text{Collection Gap} = \text{VAT Assessment} - \text{accrued VAT}$$

$$\text{Policy Gap} = PV_3 - PV_1$$

$$\text{Non-taxable Gap} = PV_3 - PV_2$$

$$\text{Expenditure Gap} = PV_2 - PV_1$$

In this study, we are concerned with the tax expenditure gap only.

There are two methods to measure the tax gap: the Top-Down Approach and the Bottom-Up Approach. We are employing the top-down method. With this approach, we estimate the potential tax. The difference between the potential tax and the actual tax collected is the tax gap. Using the basic macroeconomic identity for GDP:

$$\text{Gross Value Added} = Y = O - N$$

$$Y = C + I + G + X - M$$

$$C = M + (O - X) - (N + I)$$

Where O denotes output, N denotes intermediate consumption, and C, I, G, X, and M retain their usual economic definitions. The final consumption equation provides an estimate of the potential VAT base.

So for any specific sector, s, we have potential VAT base (PVB) and potential net VAT (PV).

$$PVB_s = M_s + (O_s - X_s) - (N_s + I_s)$$

$$PV_s = \sum_c M_{s,c} \cdot t_c + (OM_{s,c} - X_{s,c}) t_c r_s - (N_{s,c} - OO_{s,c} + I_{s,c}) \cdot t_c \cdot \rho_{s,c} \cdot r_s (1 - e_s) \cdot \lambda_c$$

Here

$M_{s,c}$ are imports of sector s for commodity c

$OM_{s,c}$ is the market output of sector s for commodity c

$N_{s,c}$ is the intermediate demand (consumption) of sector s of commodity c

$OO_{s,c}$ is the output for own use of sector s for commodity c

$I_{s,c}$ is investment of sector s of commodity c

t_c is the VAT rate applied to commodity c

$\rho_{s,c}$ the proportion of input tax credit for commodity c of sector s which is allowed to be claimed

r_s is the proportion of output for a sector produced by a registered business

e_s is the proportion of output for a sector whose output is tax exempt

λ_c is the proportion of input for a commodity purchased by taxpayers and sold to taxpayers.

Data

To estimate sales tax expenditures using the RA-VAT Tax Gap method, data from the Supply-and-Use tables is preferred. Alternatively, we can also use data from the input-output (IO) table. Due to data constraints, we have relied on data from I-O tables compiled by the Asian Development Bank (ADB).

The I-O model uses a table of inter-industry transactions and a table of final demand. The rows of the I-O tables represent sales to other industries and the final demand, which includes households, government, and exports (to the rest of the world). The columns represent the purchases of inputs by each industry from other industries, as well as labour, capital, and imports. Thus, sales minus purchases by the industry provide a good prediction of the VAT base. The inter-industry sales and purchases must be adjusted for the purchases and sales of exempt goods. An I-O-based VAT simulation model would consist of a parameter file that includes VAT rates, exemption shares, and the share of zero-rated goods and services.

The I-O tables, with their extensive data, provide a valuable resource for analysing how changes in one industry affect the broader economy. Extending tax benefits to an industry reduces its production costs, resulting in increased sales to and purchases from other sectors. The I-O Tax Return-based model, compared to micro-simulation models, more accurately captures the flow of payments within the tax system, where the tax charged is offset by the VAT paid on inputs. Additionally, since the revenue loss resulting from an exemption depends not only on the exempted taxpayer but also on the buyer,

accurately estimating the revenue loss requires input-output models that incorporate zero-rating or preferential tax rates. These models estimate revenue loss by comparing the tax liability under a standard scenario to the liability without the specific tax exemption.

Considering the detailed data in the I-O tables on supply, use, and final consumption of goods and services within Pakistan's economy, I-O modelling proves to be a valuable tool for VAT analysis, particularly in examining potential sales tax revenue, the tax gap, and revenue loss caused by exemptions (Jenkins & Kuo, 2000; Ahmed & Rider, 2013; GOP, 2022).

The latest I-O table developed by the Asian Development Bank is a 35 x 35 table based on 2022 data. We updated it for FY 2023 using ratios and relationships derived from national accounts data, calculated the potential sales tax, and adjusted it for thresholds, input tax, and exempted sectors to determine the tax expenditures.

For sales tax expenditures on imports, we relied on customs data. The standard rates of sales tax and additional sales tax serve as benchmarks, and the deviation from these rates is reported as the tax expenditure. This estimate is then subtracted from the one calculated using the I-O table to determine tax expenditures on sales tax for domestically produced goods and services.

The standard sales tax rate was increased twice recently – to 17% on July 1, 2022, and then to 18% on February 14, 2023. Therefore, we have used the effective rate, which is based on the weighted average of the two rates.

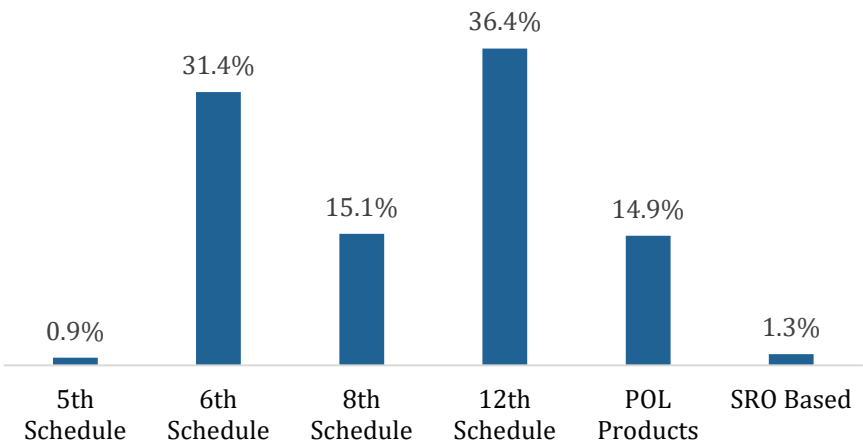
Results

The results concerning expenditures on sales tax for imported goods, followed by the expenditure on sales tax for domestically produced goods, are presented in the following sections.

Sales Tax Expenditures on Imported Goods

The sales tax expenditures (including additional sales tax expenditures) calculated from the import data amount to Rs. 872,964.95 million in FY 2023. This includes Rs. 638,813.7 million in sales tax expenditures, with the remaining allocated to additional sales tax at the import stage. The distribution of these tax expenditures across various categories is illustrated in Figure 5 below.

Figure 5: Distribution of Sales Tax Expenditures on Imported Goods

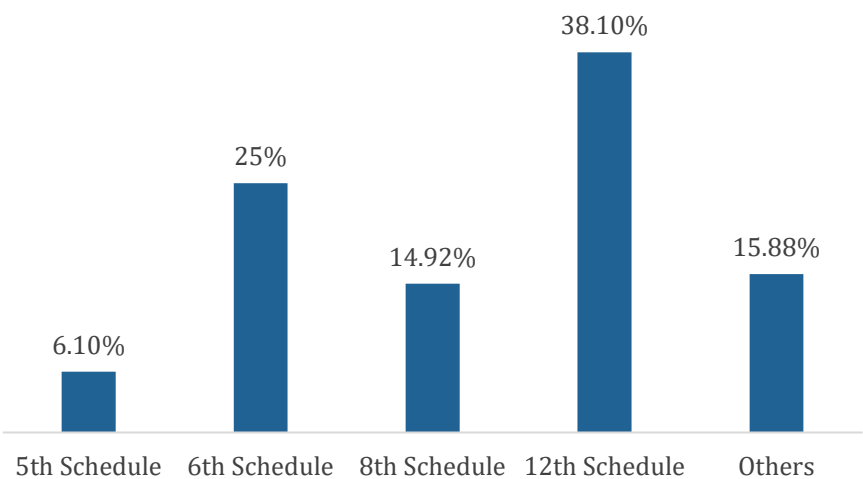


Source: Authors' calculations.

5.2.4.2 Sales Tax Expenditures on Domestic Goods

Based on estimates using I-O table data and the RA-Gap model, the sales tax expenditures on domestic goods are estimated at Rs. 2,663,709.41 million. (It is noteworthy that the RA-Gap Model assumes no assessment or collection gap). The distribution of these tax expenditures is shown below in Figure 6.

Figure 6: Distribution of the Sales Tax Expenditures

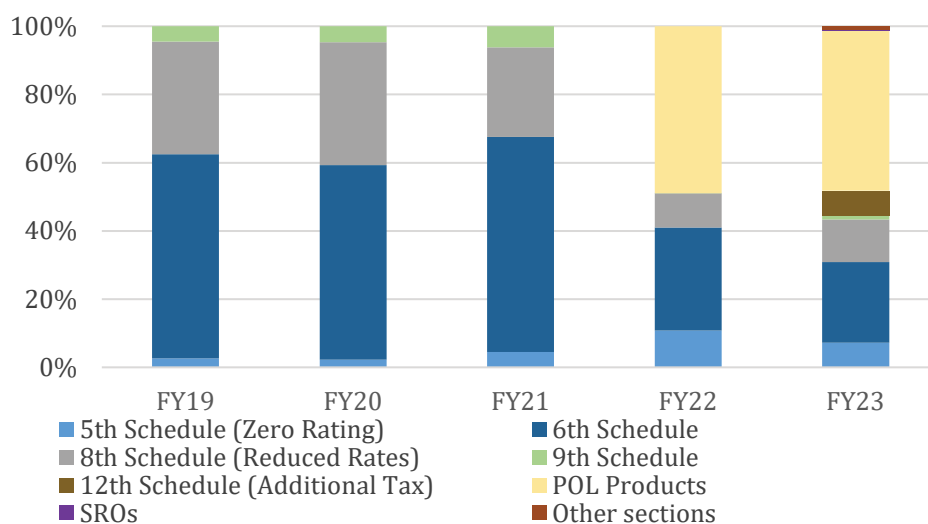


Source: Authors' calculations.

Among various sales tax expenditure heads, about 47% of the expenditures are on petroleum products (POL), including both locally produced and imported ones. This could be because, under the National Finance Commission (NFC) awards, a significant portion of the tax revenues collected by the FBR is transferred to the provinces. Since sales tax on petroleum products accounts for a substantial share of the total tax collected, the federal government prefers collecting revenues through other means, such as the petroleum development levy (which is not part of the NFC's divisible pool), rather than through sales tax, so that the federal government can retain the entire revenue.

An overview of the distribution of sales tax expenditures across various categories is provided below:

Figure 7: Historical Overview of the Sales Tax Expenditures

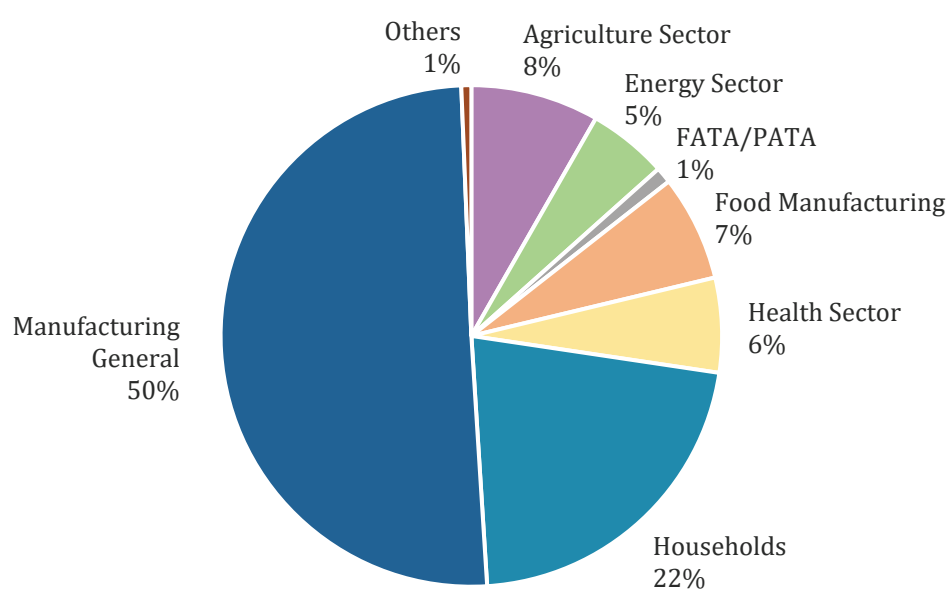


Sources: Authors' calculation and GOP (various issues).

Beneficiaries

We now present in figure 8 the distribution of beneficiaries of sales tax expenditures, using data from the Global Tax Expenditures database, FBR Tax Expenditure reports, and our own findings. We classify the beneficiaries into broader categories, including agriculture, energy, food manufacturing, health, healthcare, and households. Most of the tax expenditures, however, benefit several manufacturing sectors, which are grouped under the general manufacturing sector. The 'others' category includes various groups of beneficiaries such as importers, exporters, mining, special economic zones, and the mass transit system.

Figure 8: Distribution of the Beneficiaries in Sales Tax Expenditures



Source: Authors' calculation.

The distribution of sales tax expenditures shows that the manufacturing sector is the primary beneficiary of these tax benefits. Households also benefit significantly from tax expenditures on items such as food. Additionally, the agriculture, energy, and food manufacturing sectors are significant recipients. Despite these advantages, the sectors benefiting from these expenditures have not made notable contributions to economic growth. Moreover, investments in these sectors are generally made by well-connected businessmen. Therefore, it appears that the tax expenditures on sales tax, similar to those on customs, are driven by factors other than economic logic.

Controlling Tax Expenditures under Sales Tax

To reduce the tax expenditures on sales tax, the government should focus on the tax benefits granted to stationary items such as colours, inks, drawing materials, pencils, and ballpoint pens, etc., allowed under the 5th and 6th schedules. Moreover, the import of food items from Afghanistan is another source of tax expenditure. Similarly, the import of tractors, seeds, and fertilisers also enjoys concessions. However, we rarely see any impact of these incentives on the productivity of the agriculture sector. Likewise, the tax exemptions on bakery items and food products such as desi ghee, etc., also lack justification but are permitted under the 6th schedule. These should also be withdrawn.

The tax exemptions on electronic items and mobile phones, which are mainly for consumption, should also be revoked. (These are included in the 8th and 9th schedules). Revoking these exemptions will increase tax revenue by approximately Rs. 1.2 trillion, along with other positive effects.

Sales Tax Expenditures on Services at the Provincial Level

The 18th Amendment grants the provinces the authority to legislate on sales tax for services and other taxes, as well as to collect these taxes. Subsequently, Revenue Authorities have been established in the provinces, which now determine the rates of sales taxes for various services, their bases, rates, and exemptions, and are responsible for collecting the sales tax on these services. Since the services sector constitutes the largest share of GDP, we examined the tax expenditures on sales tax for services in two economically significant provinces—Punjab and Sindh.

The Sindh Revenue Board (SRB), established in 2010, and the Punjab Revenue Authority (PRA), founded in 2012, differ from the FBR's practice by following a positive list—meaning only the activities specified in the Act are taxed at the designated rate. Consequently, tax-exempt activities are entirely exempt without discrimination among participants. For example, health and educational services are fully exempt, so regardless of the service location or provider, these are tax-exempt. The reduced rate, however, is optional in some cases. When available, taxpayers may choose to apply it, provided no input tax adjustment is made, or they may pay the tax at the statutory rate and claim the input tax adjustment. Taxpayers must determine independently which option is more beneficial for them. This is illustrated in Table 3 below, which is reproduced from the second schedule of the Sindh Sales Tax of Services Act 2011.



Table 3: Statutory and Reduced Tax Rate for Sales Tax in Sindh

Tariff Heading	Description	Statutory Rate of Tax	Effective/existing rate(s) of tax/exemption subject to T&Cs	Terms and Conditions (T&Cs)
98.12	Telecommunication Services	19.5%		
98.01	Services Provided or rendered by hotels, motels, guest houses etc.	13%		
98.02	Advertisement	13%		
98.05	Services provided or rendered by persons authorized to transact business	13%		
9805.5000	Travel Agents	13%	5%	Input tax credit/adjustment shall not be admissible
9805.5100	Tour Operators	13%	5%	Input tax credit/adjustment shall not be admissible
98.06	Services provided or rendered in the matter of sale, purchase or Hire	13%		
9806.1000	Purchase or sale or hire or immovable property	13%	10%	Input tax credit/adjustment shall not be admissible
9806.2000	Property dealers	13%	10%	Input tax credit/adjustment shall not be admissible
9806.3000	Renting of immovable property services	13%	3%	Input tax credit/adjustment shall not be admissible
9806.4000	Car or automobile dealer	13%	10%	Input tax credit/adjustment shall not be admissible

Tariff Heading	Description	Statutory Rate of Tax	Effective/existing rate(s) of tax/exemption subject to T&Cs	Terms and Conditions (T&Cs)
9807.000	Services by property developers or promoters	13%	a) Rs. 100/sq. yard of land, and b) Rs. 50 per sq. foot of constructed covered area	Input tax credit/adjustment shall not be admissible.
9808.0000	Courier Service	13%		
9809.0000	Services provided by persons engaged in the contractual execution of work or furnishing supplies	13%		
9810.0000	Personal care services	13%	10%	Input tax credit/adjustment shall not be admissible

Notes: Adapted from the second schedule of the Sindh Sales Tax of Services Act 2011. This list presents the sample and is not exhaustive, covering all the activities liable to tax.

Source: Authors' computations.

The structure of the sales tax on services in Punjab resembles that of Sindh, relying on a positive list (a list of rates applicable to specified services in Punjab is provided in the appendix). According to the definition of tax expenditures used in this study, such treatments (like establishing a positive list) do not fall within the scope of tax expenditures. However, this approach introduces several issues, such as increasing the complexity of the tax system, giving an advantage to specific sectors by applying lower taxes, or providing preferential treatment by excluding items from the positive list, or allowing individuals or firms to opt for a lower tax rate conditioned on input tax adjustments, while enabling agents to claim input taxes by exploiting systemic weaknesses. These challenges characterising the provincial sales tax on services regime need to be addressed; however, these issues are beyond the scope of this study.

Tax Expenditures in Income Tax

Income tax covers all sources of income, including salaries, business income, investments (such as dividends, interest, rent, and royalties), employment benefits, and capital gains, all of which are considered taxable income.

Under the income tax law, various tax expenditures exist for individuals, Associations of Persons (AOP), and corporate taxpayers. These include exemptions, concessions, deductible allowances, tax credits, zero-rate income brackets, special provisions, and certain withholding taxes. Based on authentic tax data retrieved from actual income and corporate tax filings, an estimation reveals tax exemptions totalling Rs. 423,894 million permitted during FY 2022-23. The corporate sector accounts for approximately three-quarters of this sum, while the remainder is attributed to individuals and AOPs.

The Second Schedule of the Income Tax Ordinance 2001 contains a comprehensive list of exemptions and tax concessions that spans nearly ninety pages of the Income Tax Manual. A summary of the various tax expenditures related to income tax is included in the appendix.

Unfortunately, despite repeated efforts, we were unable to obtain data on income tax returns from the FBR. This prevented us from calculating the tax expenditures on income tax for FY 2023. We had to rely solely on the tax expenditures reported by the FBR. Table 4 below provides a breakdown of tax expenditures on income tax over the past 5 years, as reported by the FBR.

Table 4: Tax Expenditures under Income Tax (Rs. in millions)

Category	FY19	FY20	FY21	FY22	FY23
Exemptions under Part VII of Ch. III	18,934	32,620	26,164	26,834	57,517
Deductible Allowances	36,435	37,318	10,625	14,506	5,912
Tax Credits	104,498	105,342	65,465	52,133	24,374
Exemptions from Total Income	212,070	267,115	232,852	232,398	293,460
Reduction in Tax Rates	128	124	195	24,444	25,492
Reduction in Tax Liability	2,986	2,839	3,285	4,738	4,270
Exemption from Specific Provisions	2,975	2,687	61,076	68,841	62,756
SRO Related Exemptions					3,197
Total	378,026	448,045	399,661	423,895	476,978

Source: GOP (various issues).

6. CONCLUSION AND POLICY RECOMMENDATIONS

Tax expenditures refer to concessions, including reduced rates, exemptions, tax credits, and allowances. These increase the complexity of the tax system and create a class of beneficiaries who pay lower taxes than their professional counterparts. Such expenditures lead to decreased tax revenue, which consequently raises the fiscal deficit. Additionally, tax expenditures distort markets by making certain products or income streams more attractive than others. Therefore, this study examines tax expenditures under income, customs, and sales tax categories, including sales tax on services, which is now within the provincial domain. However, due to data availability issues, we were unable to analyse income tax expenditures. To assess sales tax expenditures, we utilised Input-Output data.

The study reveals that the size of tax expenditures is substantial and continues to increase annually. Over Rs. 4,000 billion is being allocated in tax expenditures, specifically in sales tax and customs duty alone. Primary beneficiaries of these tax expenditures include sectors such as exports, food, edible oil, and textiles. These expenditures are mainly introduced through SROs, which further complicates the tax system.

Given the foregoing discussion and analysis, we recommend the following:

- I. Immediate and substantial actions are necessary to utilise the tax expenditures outlined under the tappable tax expenditures in customs duties and sales tax under the relevant sections.
- II. SRO-based exemptions should be discouraged because they negatively impact tax collection and complicate the system.
- III. Any form of tax expenditures, such as concessions, exemptions, or reduced rates, should clearly state the purpose of the preferential treatment. This will enable the evaluation of expenditures using methods such as cost-benefit analysis.
- IV. The industries or businesses that should benefit from the tax expenditures must be chosen based on clear productivity benchmarks with specific targets and sunset clauses. Tax exemptions should be revoked for sectors that have enjoyed protectionism for an extended period but still fail to meet specific productivity standards (for example, the automobile sector).

- V. FBR's data should be accessible to the public for improved research and analysis.
- VI. Shift the approval of major exemptions and SROs from ministries to Parliament, ensuring a debate on economic justification and preventing politically motivated concessions. Establish a federal-provincial tax coordination forum to harmonise treatment of sales tax on goods and services, close loopholes, and prevent revenue leakages due to inconsistencies.
- VII. Replace broad-based exemptions with targeted, time-bound subsidies or direct support schemes that are better aligned with developmental goals.
- VIII. Mandate independent review of all tax expenditures every 3–5 years to evaluate whether they are achieving objectives, with automatic sunset clauses if they are not renewed based on evidence.
- IX. Invest in digital systems to link customs, FBR, and provincial revenue data, enabling real-time monitoring of tax expenditures, beneficiaries, and leakages.

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APPENDIX

Table 1: Tax Expenditures for Customs through SROs

Sr. No.	SRO	Description	Issue Date
1	502(I)/2023	Pakistan - Turkiye Trade in Goods Agreement	Apr 20, 2023
2	329(I)/2023	Pakistan-Uzbekistan Preferential Trade Agreement (PTA)	Mar 10, 2023
3	73(I)/2023	Exemption of Custom Duty on Import of Donation Consignments and Relief Items	Jan 25, 2023
4	1638(I)/2022	Exemption of Custom Duty on Import of goods for flood relief activities	Aug 30, 2022
5	968(I)/2022	Exemption of Customs Duty on import of certain goods imported from Afghanistan	Jun 30, 2022
6	967(I)/2022	Import of certain items at a lower rate	Jun 30, 2022
7	966(I)/2022	Change in customs duty, regulatory duty and additional customs duty on certain items	Jun 30, 2022
8	545(I)/2022		Apr 22, 2022
9	488(I)/2022	Uninterrupted Supply of Oxygen Gas in the Country for Medical Purposes	Apr 05, 2022
10	322(I)/2022	Amendment in SRO 840(I)/2021 dated 30.06.2021	Mar 01, 2022
11	1640(I)/2019	China-Pakistan FTA	Dec 31, 2019
12	40(I)/2017	Customs Duties Exemption for Orange Line Project	Jan 25, 2017
13	642(I)/2016	Exemption of customs duty on import of equipment and construction machinery, if not manufactured locally, imported by M/s China State Construction Engineering Corporation Ltd. (M/s CSCECL) for the construction of Karachi – Peshawar Motorway (Sukkur-Multan Section) and M/s China Communication Construction Company (M/s CCCC) for the construction of Karakorum Highway (KKH) Phase-II (Thakot – Havelian Section) vide SRO 642(I)/2016, dated 27th July, 2016.	Jul 27, 2016
14	268(I)/2015	Exemption of Customs duty on the import of coal mining equipment and machinery, including vehicles for site use.	Apr 02, 2015
15	280(I)/2014	Pakistan - Sri Lanka Free Trade Agreement (FTA)	Apr 08, 2014

Sr. No.	SRO	Description	Issue Date
16	121(I)/2014		Feb. 24, 2014
17	741(I)/2013	Importation into Pakistan of the specified goods from Indonesia.	Sep 06, 2013
18	499 (I)/2013	Import of Hybrid Electric Cars	Jun 12, 2013
19	39(I)/2017	Exemption from Customs duty on the import of goods	Jan 23, 2013
20	277(I)/2010	Duty-free import of a new car of engine capacity not exceeding 1350cc by Pakistani disabled nationals.	Apr 27, 2010
21	492(I)/2009	Exemption of Customs Duty and Sales tax on temporary imports for exports	Jun 13, 2009
22	497(I)/2009	Exemption of Customs duties beyond specified rates on items on the No Concession List imported from China.	Jun 13, 2009
23	41(I)/2009	Incentive Package for Special Industrial Zones/Economies	Jan 19, 2009
24	42(I)/2009	Incentive Package for the development of Pak-China Investment Zones	Jan 19, 2009
25	1261(I)/2007	Free Trade Agreement with Malaysia	Dec 31, 2007
26	1151(I)/2007	Preferential Trade Agreement between Pakistan and Mauritius	Nov 26, 2007
27	395(I)/2007	Exemption from customs duty on the import of vehicles by war-disabled defence force personnel or by civil disabled personnel	May 14, 2007
28	327(I)/2007	The materials and equipment, not manufactured locally, are imported for the Construction and Operation of Gwadar Port and the development of a Free Zone for Gwadar Port and ship bunker oils.	Apr 18, 2007
29	316(I)/2007	Exemption on customs duty and sales tax on import of Plant and machinery for the development of special industrial and economic zones	Apr 12, 2007
30	1274(I)/2006	Exemption of Customs duty on import of goods into Pakistan from SAARC countries under the SAFTA agreement	Dec 29, 2006
31	894(I)/2006	Exemption from customs duty on import from Iran under Pak-Iran PTA.	Aug 31, 2006
32	655(I)/2006	Exemption of customs duty for vendors in the Automotive sector.	Jun 22, 2006
33	656(I)/2006	Exemption of customs duty for OEMs of the Automotive sector.	Jun 22, 2006



Sr. No.	SRO	Description	Issue Date
34	577(I)/2006	Exemption of duty and taxes on vehicles imported by diplomatic representatives/missions at the stage of disposal	Jun 05, 2006
35	565(I)/2006	Exemption from customs duty on import of raw materials, sub-components, components, sub-assemblies and assemblies, for the manufacture of specified goods (Survey based).	Jun 05, 2006
36	576(I)/2006	Exemption of duty and taxes on a vehicle imported by a privileged person /organisation / or office at the stage of their disposal.	Jun 05, 2006
37	1298(I)/2005	Exemption from duty under the PAK Malaysia early harvest programme (EHP)	Dec 31, 2005
38	1296(I)/2005	Exemption from duty under the PAK-CHINA early harvest programme (EHP).	Dec 31, 2005
39	678(I)/2004	Exemption from customs duty and sales tax to Exploration and production (E&P) companies on import of machinery, equipment, specialised vehicles/vessels and helicopters, etc.	Aug 07, 2004
40	558(I)/2004	Exemption from customs duty on goods imported from SAARC and ECO Countries.	Jul 01, 2004
41	450(I)/2001	Customs Rules, 2001.	Jun 18, 2001

Source: Authors' computations.

The list of special classification provisions in Chapter 99 of the Pakistan Customs Tariff is given below:

Table 2: Tax Expenditures for Customs Given in the Pakistan Customs Tariff

Sr. No.	PTC Code	Description
1	9901	Imports by Various Agencies of the UN
2	9902	Imports by Diplomats
3	9903	Imports by privileged persons/organisations
4	9904	Vehicles in CKD condition
5	9905	Imports by Dignitaries of UAE, Qatar, Bahrain and the Kingdom of Saudi Arabia
6	9906	Goods imported under the President/Prime Minister and Ministers' salaries
7	9907	Imports under the Afghan Refugees Fund
8	9908	Gifts/Donations
9	9909	Articles, value of which does not exceed Rs. 30,000/- per parcel,
10	9910	Samples of no commercial value
11	9911	Relief goods donated for free distribution among the victims of a natural disaster or other catastrophe
12	9912	Imports by Edhi Foundation
13	9913	Gifts or donations received by a charitable non-profit making hospital or institution
14	9914	Imports by Charitable Institutions and Hospitals
15	9915	Goods imported by or donated to non-profit making educational and research institutions
16	9916	Goods supplied free of cost as a replacement for identical goods previously imported
17	9917	Goods imported into and exported from the Export Processing Zones
18	9918	Re-imported machinery, equipment, apparatus, appliances, components, sub-components, supported Palladium Catalyst and parts.
19	9919	Goods imported temporarily for a period not exceeding 6 months
20	9920	Temporary Imports
21	9921	Container for transportation of cargo
22	9922	Ship spares, stores and equipment imported for use in ships
23	9923	Currency Notes, unused stamps
24	9924	Eye cornea
25	9925	Artificial kidneys, haemodialysis machines, hemodialyzers, etc.
26	9926	Machinery for fishing
27	9927	Pharmaceutical raw materials
28	9929	Gold and Stones



Sr. No.	PTC Code	Description
29	9930	Goods imported by Federal/Provincial/ Local Government Departments, Municipal bodies and Development authorities
30	9931	Ground handling equipment, service, and operation vehicles, etc. by Civil Aviation Authority
31	9932	Medical herbs
32	9937	Items related to disabled persons
33	9938	Disposables for Cardiology/cardiac surgery, Neurovascular, Electrophysiology, Endosurgery, Endoscopy, Oncology, Urology, Gynaecology
34	9939	Diagnostic kits for HIV, Hepatitis. Cancer and Corona Virus
35	9940	Re-import of the Contingent Owned Equipment (COE) of the Mission deployed abroad
36	9941	Goods imported by or donated to municipal authorities
37	9942	Imports by the federal or provincial governments

Source: Authors' computations.

Table 3: Tax Expenditures in Sales Tax Based on Fifth and Sixth Schedule

Schedule	Schedule Serial #	Description
Fifth Schedule	2	Supply to Diplomats, etc.
Fifth Schedule	5	Supplies of Raw Material to Manufacturers in EPZs
Fifth Schedule	7	Supplies to Exporters under Duty and Tax Remission Rules, 2001
Fifth Schedule	8	Imports or supplies made to the Gwadar Special Economic Zone
Fifth Schedule	8A	Imports or supplies made by, for or to a qualified investment as specified at Serial No.1 of the First Schedule to the Foreign Investment (Promotion and Protection) Act, 2022
Fifth Schedule	12	Specific goods and their raw materials for local manufacturing (list given in the schedule)
Fifth Schedule	13	Supplies of raw materials, etc., for goods manufacturing in the Gwadar Free Zone and export
Fifth Schedule	14	Supplies of locally manufactured plant and machinery of the given specifications, to manufacturers in the Gwadar Free Zone (specification is given in the schedule)
Fifth Schedule	15	Milk (PCT 04.01)
Fifth Schedule	17	Fat-filled milk (PCT 1901.9090)

Schedule	Schedule Serial #	Description
Fifth Schedule	20	Petroleum Crude Oil (PCT heading 2709.0000)
Fifth Schedule	21	Local supplies of raw materials, plant, and machinery, etc. to registered exporters authorised under the Export Facilitation Scheme, 2021
Sixth Schedule (Table 1)	13	Edible Vegetables imported from Afghanistan
Sixth Schedule (Table 1)	14	Pulses
Sixth Schedule (Table 1)	15	Fruit imported from Afghanistan, excluding apples (PCT 0808.1000)
Sixth Schedule (Table 1)	16	Red chillies, excluding those sold under brand names and trademarks
Sixth Schedule (Table 1)	17	Ginger, excluding those sold under brand names and trademarks
Sixth Schedule (Table 1)	18	Turmeric, excluding those sold under brand names and trademarks
Sixth Schedule (Table 1)	19	Rice, wheat, and meslin flour
Sixth Schedule (Table 1)	31	Holy Quran, Recording of Quranic Verses and other Holy books
Sixth Schedule (Table 1)	32	Newsprint and books
Sixth Schedule (Table 1)	33	Currency notes, bank notes, shares, stocks and bonds
Sixth Schedule (Table 1)	38	Monetary gold.
Sixth Schedule (Table 1)	45	Dextrose and saline infusion giving sets
Sixth Schedule (Table 1)	47	Import of articles of household and personal effects by UAE dignitaries
Sixth Schedule (Table 1)	48	Goods imported or supplied under grants-in-aid
Sixth Schedule (Table 1)	59	Artificial kidneys, eye cornea, haemodialysis machines and other medical equipment
Sixth Schedule (Table 1)	86	Colours in sets (Poster colours)
Sixth Schedule (Table 1)	87	Writing, drawing and making inks
Sixth Schedule (Table 1)	88	Erasers
Sixth Schedule (Table 1)	89	Exercise books
Sixth Schedule (Table 1)	90	Pencil sharpeners
Sixth Schedule (Table 1)	94	Wheelchairs
Sixth Schedule (Table 1)	96	Other drawing, marking out or mathematical calculating instruments
Sixth Schedule (Table 1)	97	Pens, ball pens, markers, etc.
Sixth Schedule (Table 1)	98	Pencils, including colour pencils
Sixth Schedule (Table 1)	100	Construction materials to Gwadar EPZ's investors and to EPZ



Schedule	Schedule Serial #	Description
Sixth Schedule (Table 1)	100(A)	Materials and equipment for the construction and operation of the Gwadar Port and the development of the Free Zone for Gwadar Port
Sixth Schedule (Table 1)	100(B)	Supplies made by the businesses to be established in the Gwadar Free Zone
Sixth Schedule (Table 1)	100(C)	Vehicles imported by China Overseas Ports Holding Company Limited (COPHCL) and its operating companies
Sixth Schedule (Table 1)	100(D)	Machinery, equipment, materials and goods imported either for exclusive use within the limits of Gwadar Free Zone, or for making exports therefrom
Sixth Schedule (Table 1)	107	Import and supply of iodized salt bearing brand names and trademarks
Sixth Schedule (Table 1)	112	cardiology/cardiac surgery related medical equipment (list given in the schedule)
Sixth Schedule (Table 1)	120	Diagnostic kits (Medical equipment)
Sixth Schedule (Table 1)	121	Blood Bag and its material
Sixth Schedule (Table 1)	122	Urine drainage bags
Sixth Schedule (Table 1)	133	Pesticides and their active ingredients
Sixth Schedule (Table 1)	137	Paper weighing 60 g/m ² , art paper, printing paper and art card for printing of the Holy Quran
Sixth Schedule (Table 1)	143	Hearing aids, etc.
Sixth Schedule (Table 1)	144	LNG imported by fertilizer manufacturers
Sixth Schedule (Table 1)	145	Plant, machinery, equipment and special-purpose motor vehicles imported by M/s China State Construction Engineering Corporation Limited (M/s CSCECL) for the construction of Motorways
Sixth Schedule (Table 1)	147	Goods supplied to the German Development Agency
Sixth Schedule (Table 1)	148	Imported construction materials and goods imported by M/s China State Construction Engineering Corporation Limited (M/s CSCECL)
Sixth Schedule (Table 1)	151	Supplies and imports of plant, machinery, equipment for installation in tribal areas and industries located there.
Sixth Schedule (Table 1)	152	Supplies of electricity, as made from the day of assent to the Constitution, to all residential and commercial consumers in tribal areas
Sixth Schedule (Table 1)	154	Dietetic foods

Schedule	Schedule Serial #	Description
Sixth Schedule (Table 1)	156	Import of CKD kits by local manufacturers
Sixth Schedule (Table 1)	157	Import of CKD (in kit form)
Sixth Schedule (Table 1)	161	Import of plant, machinery, equipment and raw materials for the consumption of these items within the Special Technology Zone
Sixth Schedule (Table 1)	162	Import of raw materials, components, parts and plant and machinery by registered persons authorized under the Export Facilitation Scheme
Sixth Schedule (Table 1)	163	Goods imported by various agencies of the United Nations, diplomats, diplomatic missions, privileged persons and privileged organizations
Sixth Schedule (Table 1)	164	Photovoltaic cells
Sixth Schedule (Table 1)	165	Goods imported by or donated to hospitals run by non-profit-making institutions
Sixth Schedule (Table 1)	166	Goods, excluding electricity and natural gas, supplied to hospitals run by charitable hospitals
Sixth Schedule (Table 1)	167	Goods temporarily imported into Pakistan, meant for subsequent exportation charged to zero-rate
Sixth Schedule (Table 1)	168	Fertilizers excluding DAP
Sixth Schedule (Table 1)	169	Oil cake and other solid residues
Sixth Schedule (Table 1)	170	Tractors
Sixth Schedule (Table 1)	171	Seed for Sowing
Sixth Schedule (Table 1)	172	Machinery, equipment and materials imported either for exclusive use within the limits of EPZ or for making exports therefrom
Sixth Schedule (Table 1)	173	Goods produced or manufactured in and exported from Pakistan are subsequently imported
Sixth Schedule (Table 1)	174	Machinery and equipment as listed at serial number 32 of the Table of Part I of the Fifth Schedule to the Customs Act, 1969.
Sixth Schedule (Table 2)	6	Supply of fixed assets against which input tax adjustment is not available
Sixth Schedule (Table 2)	7	Sheer mal and Bun, etc.
Sixth Schedule (Table 2)	8	Foodstuff cooked or prepared in-house and served in messes
Sixth Schedule (Table 2)	10	Agricultural produce of Pakistan
Sixth Schedule (Table 2)	21	Poultry feed, cattle feed, etc.



Schedule	Schedule Serial #	Description
Sixth Schedule (Table 2)	26	Supply of locally produced silos
Sixth Schedule (Table 2)	27	Wheat Bran
Sixth Schedule (Table 2)	28	Sugar Beet
Sixth Schedule (Table 2)	29	Fruit juices
Sixth Schedule (Table 2)	30	Milk and cream
Sixth Schedule (Table 2)	31	Flavoured Milk
Sixth Schedule (Table 2)	32	Yoghurt, excluding that sold under a brand name
Sixth Schedule (Table 2)	34	Butter, excluding that sold under a brand name
Sixth Schedule (Table 2)	35	Desi ghee, excluding that sold under a brand name
Sixth Schedule (Table 2)	36	Cheese, excluding that sold under a brand name
Sixth Schedule (Table 2)	37	Processed Cheese
Sixth Schedule (Table 2)	38	Meat products
Sixth Schedule (Table 2)	40	Live Animals and Live Poultry
Sixth Schedule (Table 2)	41	Meat of bovine animals
Sixth Schedule (Table 2)	42	Fish and crustaceans
Sixth Schedule (Table 2)	43	Live plants
Sixth Schedule (Table 2)	44	Cereals other than rice, wheat, and meslin flour
Sixth Schedule (Table 2)	45	Edible vegetables
Sixth Schedule (Table 2)	46	Edible Fruits
Sixth Schedule (Table 2)	47	Sugar cane
Sixth Schedule (Table 2)	48	Eggs
Sixth Schedule (Table 2)	49	Compost
Sixth Schedule (Table 2)	50	Locally manufactured laptops and computers
Sixth Schedule (Table 2)	51	Newspapers
Sixth Schedule (Table 2)	52	Raw hides and Skins
Sixth Schedule (Table 2)	53	Prepared food or foodstuff supplied by Restaurants and caterers
Sixth Schedule (Table 2)	54	All types of breads, naans and chapattis
Sixth Schedule (Table 2)	55	Single-cylinder agriculture diesel engines

Source: Authors' computations.

Table 4: Tax Expenditures in Sales Tax under 8th Schedule

Sr No in the schedule	Description	Rate
23	Second-hand and worn clothing or footwear	5%
43	Natural gas	5%
44	Phosphoric acid	5%
47	Locally produced coal	Rs. 700 per metric tonne or 18% ad valorem, whichever is higher
53	Cinematographic equipment	5%
56	Potassium Chlorate (KClO ₃)	18% along with rupees 60 per kilogram
57	Rock phosphate	10%
66	Supplies are made from retail outlets and are integrated with the Board's computerised system for real-time reporting of sales	15%
70	Locally manufactured electric vehicles	1%
71	Locally manufactured or assembled electric vehicles (4-wheelers)	1%
72	Motorcars	12.5%
73	Locally manufactured Hybrid electric vehicle	8.5%
74	Goods supplied from tax-exempt areas of the erstwhile FATA/PATA to the taxable areas	16%
77	Personal computers, laptops, etc.	5%
78	Supply of locally manufactured articles of jewellery, stones	3%
79	Electric vehicle in CBU condition with a 50 kwh battery	12.5%
80	EV transport buses of 25 seats or more in CBU condition	1%
81	Substances registered as drugs	1%
82	Raw materials for the basic manufacture of pharmaceuticals	1%
83	DAP	5%

Source: Authors' computations.

Table 5: Tax Expenditures in Sales Tax under the 9th Schedule

Serial No in Schedule	Description	Rate
1 (Table 1)	Subscriber Identification Module (SIM) Cards	Rs. 250
1 (Table 2)	Cellular mobile phones or satellite phones	Various rates as per the price are given in the schedule

Source: Authors' computations.

Table 6: Sales Tax on Services in Punjab

Tariff Heading	Description	Rate of Tax with T&Cs, if any
9801.1000	Hotels, motels and guest houses.	5% without input tax adjustment for non-corporate, non-franchise, non-chain businesses with less than 20 rooms.
9801.3000	Marriage halls and lawns, including pandal and shamiana services	5% without input tax adjustment
9801.4000	Clubs, including race clubs and their membership services	16%
9801.5000	Catering services	5% without input tax adjustment
9802.1000, 9802.2000	Advertisement on television and radio, or advertisement services	16%
9805.4000, 9805.8000, 9805.2000	Services provided by persons authorised to transact business on behalf of others– (a) customs agents; (b) ship chandlers; and (c) stevedores.	16%
9808.0000, 9804.9000	Courier services	16%
9802.5000	Advertisement on a cable television.	16%
9857.0000, 9858.0000	Telecommunication services	19%
98.13	Services provided in respect of insurance to a policy holder	0% Input tax credit/adjustment shall not be admissible
98.13	Services provided by banking and nonbanking financial institutions.	16%
9819.1000	Services provided by the stockbrokers	16%
9805.1000	Services provided by shipping agents	16%

Notes: Adapted from the second schedule of the Punjab Sales Tax of Services Act 2012. This list presents the sample.

Source: Authors' computations.

PART II

FISCAL MANAGEMENT

Policy Briefs

GOVERNANCE STRUCTURE AND FLAWS WITHIN: A CASE STUDY OF THE MINISTRY OF SCIENCE AND TECHNOLOGY AND ITS PUBLIC SECTOR ENTITIES

Ayezza Sattar and Mahmood Khalid

INTRODUCTION

Pakistan's Ministry of Science and Technology (S&T) was established in 1965 to build a platform for the development and advancement of science and technology in Pakistan. The trio of universities, research organisations, and industry needed a proper platform to collaborate and create opportunities for implementing the ideas conceived by scientists. Thus, the establishment of the Ministry of S & T

Currently, the Ministry of Science and Technology has 14 organisations under its direct administrative control. Out of these, three are universities and the rest are either research organisations or regulatory authorities. The organisations that work as regulatory authorities are primarily responsible for monitoring the standards of quality of the products developed by the industries in the country. This means that the scope of work of these organisations is momentous. Still, the country has

not made significant progress in terms of scientific advancement. Why has the journey not resulted in intended outcomes, and how inefficient is the administration of these SOEs or PSEs? These questions are considered in this brief.

Almost all the organisations that the Ministry governs are structured as corporate bodies under their respective laws. All of them are engaged in the sale of goods and services in one way or another. The government plays a significant role in appointing their board members, CEOs and in some cases, senior management as well. None of the 16 organisations, governed by the ministry, has been declared as an attached department in the Rules of Business (ROB), 1973 of the Government of Pakistan. Their exclusion from Schedule-III 3 of ROB, 1973 and their ambiguous inclusion in Schedule-II 2 make their administration a treacherous path that the Ministry must tread.

The Ministry of Science & Technology, in its present form, has been in operation since 1972. It is supposed to be the national focal point for planning, coordination and execution of scientific advancement in the country.

The Day-to-day business assigned to the Division under Schedule-II of the Rules of Business 1973 is undertaken by four technical wings, each headed by BS-20 officers, while the Administration and Finance & Accounts Wings are being headed respectively by a Joint Secretary and Chief Finance & Accounts Officer (CF&AO). A Planning & Development Cell is also operating in the Ministry. Although the Planning and Development Wing is in rudimentary shape, the officers of the Planning Commission who are supposed to be part of the cell have not been posted there.

A detailed overview of the Ministry explicitly brings forth the flaws within the administrative structure of the Ministry. A brief picture of the different wings of the Ministry is given below:

There are eight Wings within the Ministry, namely,

- 1) Technology Wing
- 2) Electronics Wing
- 3) International Liaison Wing
- 4) Organisation Wing

- 5) Planning and Development Cell/Wing
- 6) Finance Wing
- 7) Policy and Coordination Wing
- 8) Administration Wing

The eight Wings within the Ministry are supposed to develop cohesion and provide the subordinate organisations under their administrative control a way forward. However, here cohesion is lacking, and an overlap of authority is evident. The result is turf wars within the Ministry, leading to poor performance outcomes.

PURPOSE AND SCOPE OF THE STUDY

The purpose of this study is to present fault lines within the system of governance in the country. The study presents a detailed diagnostic analysis of the reasons behind sub-optimal performance outcomes of the organisations that fall under the control of the Ministry of Science and Technology. This study also examines the organisations that are self-sufficient and get no grants from the government, but are corporate bodies wholly owned by the government. They are supposed to pay a dividend to the government, so that they contribute to the national exchequer. Besides, this study also analyzes as to what the government will gain if at least a specific chunk of the revenue

generated by these public sector entities is under direct government control.

Public Sector Expenditure goes beyond the Revenue, or the Cash flow forecast of the administrative ministry/division. Owing to the losses incurred by these government offices that have an ambiguous status, as they take grants from the government, but not all the revenue generated by them is remitted into the Federal Consolidated Fund. In some cases, privatisation or winding up is the only way forward, as in the case of the Council of Housing and Works Research, an organisation under the Ministry of Science and Technology. And then there are a few cases like STEDEC where revival or partial privatisation of the organisation is necessary for better governance.

The main research questions addressed in this study are as follows:

1. What is Public Sector Expenditure, and how do fiscally redundant organisations affect it?
2. Do we have organisations that need major revival and others that should be closed?
3. Should we? Is it necessary to keep the dying organisations alive at the expense of public money?

We have put forth the way forward for these Research and Development

-related organisations after a thorough discussion with the employees of these organisations, the Finance Division and the Ministry.

FINDINGS AND DISCUSSIONS

The Pakistan Council for Scientific and Industrial Research (PCSIR) has received the second-highest grant (34% in FY 2023-24) among the organisations under the control of the Ministry of S&T, in the sample period. For the last FY under study, it is close to 4 billion rupees. In contrast, CWHR (1.3%), PCST (1.1%) are relatively minor grant receivers.

The study finds that the recurrent budget of most of the secretariats of the organisations is increasing over time. Employees' salaries and pensions take away most of the budget.

The proportion of the development budget is the same as the proportions that were the case with current allocations. However, like other development spending, these are also susceptible to cuts and reallocations.

PSQCA does not get any grant from the government other than a few development schemes, but it manages to earn a tremendous amount of money. Audit Authorities have repeatedly pointed out the lack of accountability on the part of the

organisation. PSQCA has yet to frame its financial rules, a lacuna that needs to be addressed. According to the records from the AGP Office, PSQCA earned around 2 billion rupees after deducting all its expenses. As per TSA Rules 2020 and subsequently framed Cash Management and TSA Rules 2024, the money earned by a Public Sector Enterprise must be deposited into the Federal Consolidated Fund. However, the PSQSA has consistently avoided doing so.

CONCLUSION

The conclusions of the study are:

Lack of Vision

The Ministry of Science and Technology and the organisations under its control suffer from a lack of creativity and do not have an appropriate vision. This needs to change. Schedule 3 to the Rules of Business, 1973 mandates the Ministry with an advanced role in the scientific and technological advancement of the country. The Ministry needs to attain this as an objective, starting with a clear understanding of the potential of the organisations under its control.

Political Interference and lack of intellectual integrity

Time and again, the Ministry has been used, as elsewhere in the government, by the politicians to

offer employment to people from their constituency and other favourites. This resulted in the loss of merit-based inductions. The Ministry has obviously suffered.

KEY POLICY RECOMMENDATIONS

- 1) Amendments may be made to the Rules of Business, 1973
- 2) Workload may be redistributed within the ministry.
- 3) Develop attainable goals and objectives in the Ministry
- 4) Categorisation of PSEs as per Section 36 of the PFM Act 2019 is needed.
- 5) PCSIR shall have equity-based investments and shall develop a liaison with the academia and the industry as per the triple/helix model enumerated in the National Science Technology and Innovation Policy 2022.
- 6) PCST may be granted autonomy and be revitalised.
- 7) CWHR shall be wound up.
- 8) PSQCA shall be made part of the essential SOEs, and it shall remit its funds to the Federal Consolidated Fund.
- 9) STEDEC shall be transformed into a proper commercial enterprise.

GOVERNING PUBLIC SECTOR PROJECTS IN GILGIT-BALTISTAN: A MULTI-STAKEHOLDER ANALYSIS

Asadullah Khan and Faisal Rana

INTRODUCTION

For a long time, organizations have been using project management approaches to attain their organizational goals. Organizations launch projects to succeed, but due to challenges associated with governing projects, many projects fail, and the reasons are often unclear. Nowadays, project evaluations are being expanded to include their ability to achieve sustained performance in meeting operating goals over considerable periods. Despite significant interest in improving the performance of large, multi-stakeholder projects, theories and models of project management have not adequately addressed the special needs of mega-projects. Specifically, what is missing are frameworks and empirical reports that focus on the governance of these projects.

Public sector projects are influenced by complex sets of internal and external forces. Hence, managing projects through this mix of dynamic factors requires a lot from the project

team and stakeholders. Developing more detailed and empirically grounded understandings will improve project outcomes and help the organization and executing agencies to monitor and evaluate outcomes more effectively. Due to the region's isolation and vulnerability, organizations working in Gilgit-Baltistan are not meeting the fundamental needs of the people. The failure to develop sound stakeholder management within public sector organizations is also a primary reason for poor project performance. Hence, the issues of project governance, stakeholder engagement, and project management are interlinked. It is also important to note that the phenomenon of globalisation has played a significant role not only in reshaping traditional public sector organisations but also in transforming local cultures.

Public sector development projects significantly contribute to the national economy; however, these projects are not managed effectively in Gilgit-Baltistan (GB), despite

adherence to the existing governance structure. These projects often have a long-life cycle, are over budgeted, involve multiple stakeholders, and face uncertainties, making them challenging to plan, execute, and manage effectively.

In the GB, public sector development projects are distinctive to that setting, i.e., numerous stakeholders, weak procurement systems, complex processes, lack of resources and skills, and bureaucratic red tape. Like the rest of the country, GB is also facing serious issues related to project management. The key reasons for the unsatisfactory performance of public sector development projects are ineffective governance and conflicts of interest among stakeholders, including consultants, project directors, contractors, and sponsoring agencies. Existing studies indicate that there are severe shortcomings in appropriate planning, stakeholder management, and project governance. Research on project management has been conducted in Pakistan; however, research on project governance and stakeholder management in public sector development projects remains unexplored. Therefore, this study aims to advance the contribution of project performance.

The main research questions of this study are:

- What are the current practices of project governance and stakeholder management in

public sector development projects in GB?

- What are the key challenges faced by project professionals governing the projects and managing the stakeholders?
- While answering the above research questions, the overall aim of this study is to suggest a governance framework for the performance of public sector development projects.

RESEARCH METHODOLOGY

The research is based on the analysis of 15 PSDP projects (Power Sector) in Gilgit-Baltistan. The data collection methods to be used in the study will include academic journals, interviews with key informants (i.e., Project Directors of mega power and infrastructure projects), group discussions (in-person and online), review of official documents from the Ministry of Planning, Development & Special Initiatives, and provincial P&D departments.

This research method provides a rich dataset that forms the basis of this policy paper. The multi-faceted methodology aims to capture the complexities of project governance, stakeholder management, and project performance within the unique context of PSDP-funded projects in Gilgit-Baltistan.

FINDINGS AND DISCUSSION

A thorough review of the relevant literature of the last five years reveals that the theme of project governance and stakeholder management has not been extensively discussed in the literature on Pakistan in general and in Gilgit-Baltistan in particular. Challenges faced in the planning, allocation, and implementation phases are as follows:

- The unavailability of a medium-term planning document weakens the link between the economic development of public infrastructure Projects. Vision 2025 is a decade-old document that does not identify the key investment projects, their associated costs, or their contribution to the goals.
- Unrealistically large number of ongoing projects in the PSDP creates delays in project completion and contributes to cost overruns beyond the budgeted allocations. As per Planning Commission estimates, projects are delayed, and costs increase by 2 to 3 times the original plan.

We conducted an in-depth examination of 15 PSDP-funded projects meant for GB to uncover the underlying factors contributing to delays, revisions, poor quality, and

outright failure of these projects. Discussions with the Project Management Unit (PMU) teams and evaluation of the official documents revealed that all projects have undergone revisions, resulting in an extension of the execution timeframe. The following reasons have been identified for the revisions.

- Inadequate feasibility studies before the approval of the projects led to a significant increase in the scope of work during the execution to meet site requirements.
- Discrepancies in the financial phasing resulted in delays in fund releases.
- In the power sector projects, the costs of turbine-generator (TG) sets escalated due to fluctuations in currency exchange rates.
- Incorrect site selection contributed to project setbacks. Legal challenges, including court cases and litigation, arose during the land acquisition processes.
- Lengthy tendering and documentation procedures, coupled with delays in procurement by the contractors, resulted in delayed civil works.

It was observed that 95% of PSDP-funded projects in GB are revised. The region's unique geographical characteristics present distinct challenges when it comes to executing development initiatives compared to more accessible areas in the country. There are numerous challenges associated with the execution of developmental activities in GB due to its harsh climatic conditions/short working season, and dependency on the federal government to meet development expenditure.

A focus group discussion (FGD) was held in the Planning & Development Department of Gilgit-Baltistan. The participants in the FGD included professionals from the Planning & Development Department, Project Directors of several Federal PSDP projects, Engineers from various sectors (Communication, Works, Power, and Local Government), and representatives from Civil Society, Academia, and the Contractor Association. The findings from the FGDs on issues & recommendations regarding approval processes, project teams and coordination, project justification, political interference, project initiation, planning, execution, monitoring and control, and project completion have been categorised and summarised in the study. This will help identify patterns, correlations, and overarching themes from the discussion.

CONCLUSION

The overall findings of this policy paper indicate systemic issues across various stages of project management in the Planning and Development Department. Addressing these issues requires a comprehensive strategy that focuses on improving coordination, capacity building, reducing political interference, streamlining approval processes, enhancing planning estimates and projections, and establishing robust monitoring and evaluation frameworks. Involving all stakeholders, including end-users and contractors, in the decision-making process is also crucial for the successful execution and completion of projects.

Addressing the identified issues and implementing the recommended strategies will help establish, engage, and maintain positive relationships with stakeholders throughout the project lifecycle.

In conclusion, by implementing the following recommendations, we can foster a culture of effective public sector project governance, ensuring that projects are delivered on time, within budget, and achieve their intended public benefits.

- A one-time review of all approved projects must be conducted for the timely

completion of the project. The objective of the review should be to limit the set of active projects to those of high priority only. To begin with, the review should be undertaken at the Planning Commission, followed by several forums leading up to the National Finance Commission. The government may adopt e-procurement for incurring development and non-development expenditure.

- Projects and programs may be identified based on reliable data and detailed surveys or research studies.
- The GB government must publish scheduled rates for at least three years to ensure market-based and accurate cost estimates.
- A robust risk management strategy may be included in the Planning Manual to address various types of risks that may arise during project execution.
- Proper Project Management Units (PMUs) should be established to execute projects and programs.
- Funds should be released as per the cash plan. The procurement of land, contractors, and equipment can be conducted using PPRA rules and IT-based systems to minimise delays.
- Dedicated Monitoring & Evaluation cells should be established at the sponsoring, executing, and Planning & Development Department (P&DD) to ensure that the quality of work aligns with the approved scope of PC-I, cash, and work plan.
- The Five-Year Plan should be developed in alignment with strategic goals such as the Sustainable Development Goals (SDGs).

Upon project identification, all relevant primary and secondary stakeholders should be identified and engaged from the inception of the project. A comprehensive management and engagement strategy should be developed with clear communication channels. Meetings to engage stakeholders at various levels should be convened, considering the importance of each stakeholder.

DOCUMENTATION SIMPLIFICATION VIA TAX E-FILING: EXAMINING BARRIERS TO ADOPTION AND CONTINUANCE INTENTION OF USING E-FILING BY TAXPAYERS IN PAKISTAN

Sobia Khurram and Saman Arshad

INTRODUCTION

As the primary authority responsible for collecting tax revenue in Pakistan, the Federal Board of Revenue (FBR) bears the responsibility of optimizing tax collection to generate sufficient revenue for the country's economic growth. To enhance tax revenue through improved compliance, the FBR introduced an electronic tax filing system (e-filing) in 2005, accessible via its website, IRIS. The rollout of online tax filing services initially attracted more individuals into the tax system compared to manual filing. However, after more than two decades, the number of tax e-filers remains significantly below global and regional averages. According to the FBR's Active Taxpayers List (ATL), there are 3.41 million active taxpayers (FBR, 2024), which is only 1.4% of Pakistan's population, estimated at 245.29

million (Worldometer, 2024), and 4.1% of the country's labour force. It is also notable that the number of tax-filers has fluctuated over the years; instead of a steady increase, the number of active taxpayers decreased from 5.7 million in 2021 to 3.55 million in 2022, and further to 3.41 million in 2024, indicating the poor performance of the FBR. The proportion of taxpayers in the population is the lowest in Pakistan, i.e. 1.4% with India standing at 5%, Indonesia at 10%, Japan at 39%, USA at 44%, France at 76%, and Canada and Australia at more than 80% (Nabi & Nasim, 2020). Researchers and experts have discussed key factors hindering the development of a culture of tax compliance in Pakistan. Bukhari and Haq (2014) state that poor management, an inefficient e-filing system, unjust and burdensome tax tariffs, and a general mistrust of the

tax authority contribute to a culture of evasion. Awan and Hannan (2014) argue that the complexity of the tax system, wastage of public funds, fraudulent management, and wasteful government spending are primary factors fostering non-compliance. Khalid and Nasir (2020) highlighted that high compliance costs discourage people from filing their tax returns. “This cost consists of the number of hours required for record keeping, tax planning, and completing and submitting forms. It takes around 577 hours (per year) to complete the tax payment process in Pakistan compared to the world average of 108 hours” (p. 464). Additionally, tax awareness is a crucial determinant of filing returns; limited knowledge about taxes can lead to unfamiliarity with the filing process and its benefits, serving as a deterrent (Bano, Riaz, & Nadeem, 2023). Although the literature on tax compliance for Pakistan is extensive, no study has thoroughly explored the barriers to adopting the FBR’s tax e-filing system. This study identifies the barriers to tax e-filing by gathering the views of stakeholders involved in e-filing, including tax-filers (those who have used or been exposed to the system), non-filers (those who have not used the system and do not file taxes), and FBR officers involved in system implementation. The study also provides recommendations to address the low adoption rate of tax e-filing.

METHODOLOGY

The methodology involves conducting face-to-face semi-structured interviews. An interview guide was developed based on research questions to provide a framework for the interviews. Purposive sampling was used to select the respondents—a sample of 20 individuals, including FBR officers, tax-filers, and non-filers. Of these, 12 respondents were males and 8 were females. The interviews were audio-recorded after obtaining consent from the respondents. The qualitative data thus generated was analysed using thematic analysis, with the transcribed data coded and categorised into themes.

FINDINGS AND CONCLUSIONS

The analysis of data generated using interviews with the respondents revealed valuable insights. The main issue was the complexity of the website (IRIS 2.0), which is challenging to navigate and contains excessive, unexplained content, making the tax e-filing process more challenging for the taxpayers. Secondly, there is a general reluctance among Pakistani citizens to pay taxes or file their returns due to a lack of trust in sharing personal financial information. Additionally, many believe they can easily evade

taxes without facing penalties. Thirdly, there is limited awareness of tutorials available on the FBR's website, and the poor quality of these tutorials exacerbates the problem. Moreover, taxpayers are often unaware of support facilities, such as Taxpayer Facilitation Centres (TFCs) or helplines, that aid with e-filing tax returns. This highlights the need to improve and promote these support services. There is also a lack of awareness about the Tax Asaan app, which is designed to simplify e-filing, but its use is limited due to incomplete functionality. The use of English on the FBR's website and in several communications also poses a barrier for the typical Pakistani taxpayer. Taxpayers who are unable to file their returns due to these issues often seek help from tax consultants, which incurs costs that many cannot afford. Those who file through consultants also have concerns regarding the security of their personal financial information. Lastly, most citizens are unaware of the specific penalties associated with incorrect filing or non-compliance. Addressing these barriers is crucial for the FBR to enhance and foster a positive tax culture nationwide.

KEY POLICY RECOMMENDATIONS

Based on the study's findings, we recommend the following to simplify the tax e-filing process for taxpayers.

We hope this will help increase tax revenue.

User-friendliness of the System:

There is an urgent need to simplify the tax e-filing system (website and the app) by making the interface user-friendly and easy to navigate. There should be a tab where sources of income are listed, allowing taxpayers to easily identify their relevant choices. Additionally, a list with checkboxes should be provided to allow taxpayers to select the taxes they have already paid, as taxpayers sometimes struggle to recall all taxes paid during the year at the time of filing. A taxpayer should be guided throughout the process via a help section or small pop-ups with definitions and explanations of various terms listed in the form. An improved and comprehensive FAQ section should be added to the FBR website to address the most frequently asked questions of the citizens. Moreover, there should be an option to view the website and app in the Urdu language to make it more inclusive, so that taxpayers who cannot read or understand English can also file their tax returns. This can enable an ordinary taxpayer to file their income tax returns independently, without assistance from an agent, thereby alleviating concerns about the privacy of financial information as well as doubts regarding the accuracy of tax filing by agents.

Taxpayer Education: It is recommended that the FBR design better and more effective tutorials for taxpayers' education and assistance. The FBR should focus on improving these tutorials by providing comprehensive information about sections, sub-sections, and the relevant data to be entered in each. They should also include clear and detailed explanations of every step involved in the tax e-filing process. Additionally, tutorials should educate taxpayers on basic taxation concepts, including, but not limited to, categories of assets, liabilities, income, wealth, expenditures, reconciliation, and adjustment of unreconciled amounts, in simple (non-legal) language. There is also a need to develop tutorials to guide taxpayers on the list of supporting documents and the specific content required within those documents for filing tax returns. The FBR could create comprehensive tutorials explaining the entire tax e-filing process step-by-step for the most common categories relevant to the majority of taxpayers in Pakistan. Moreover, the FBR could establish a YouTube channel to upload these tutorials, enabling taxpayers to access them conveniently. Communication with taxpayers via emails or SMS alerts should employ layman's language to ensure clarity. The tutorials must also be available in both English and Urdu to maximise their reach. Lastly, taxpayers should

be informed about the penalties and consequences of non-compliance through various media, such as TV advertisements, social media, and websites.

Awareness and Redesigning of facilities provided by TFCs:

Currently, most taxpayers are unaware of the facilities provided by TFCs, which raises questions about the effectiveness of these centres. Even those who are aware of or have visited these centres are often unimpressed by their services. The FBR should redesign and enhance the services offered by the TFCs. Relevant officers should be available to assist taxpayers with any issues related to the tax e-filing process. Additionally, a dedicated section should be established in the TFCs to educate taxpayers about taxation, provide training on tax e-filing, and answer all tax-related queries, including concepts, e-filing procedures, supporting documents, and legal notices. Furthermore, the FBR should promote awareness of the TFCs through advertising on websites, local channels, or social media. It can highlight the facilities available at TFCs when communicating tax e-filing deadlines. Well-managed TFCs staffed by helpful officers can reduce the need for assistance from third-party agents and enable taxpayers to file their returns independently.

Data Integration with Other Departments: The FBR should also work towards integrating taxpayer data on their website with other relevant agencies, such as NADRA and FIA. This will automate the data entry process to some degree because the system will be able to extract data

automatically from integrated sources. This will make it easier and less time-consuming for the citizens to file their income tax returns. It will also eliminate the possibility of entering incorrect data, thereby ensuring the accuracy of tax e-filing.

ANALYSIS OF TAX EXPENDITURES IN PAKISTAN

Muhammad Nadeem Sarwar and Shagufta Shabbar

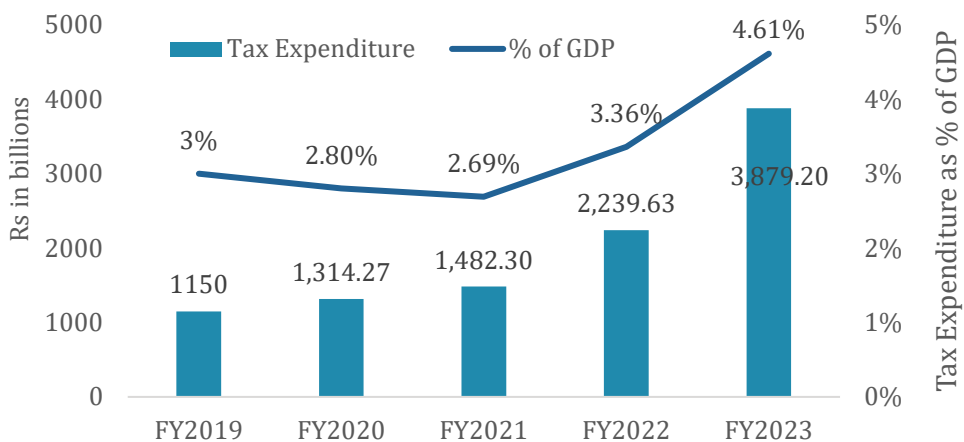
INTRODUCTION

Tax expenditures represent a loss of tax revenue arising from preferential provisions in the law that grant specific taxpayers or sectors concessions not available to other taxpayers, leading to lower tax revenue collection than would otherwise be the case.

According to this definition, if a

concession or exemption is available to everyone, then the resulting loss of revenue does not qualify as tax expenditure. However, if a concession, exemption, or preferential treatment is available to specific individuals, sectors, businesses, income sources, areas, or specific goods and services, then the revenue foregone due to this provision will be recorded as tax expenditures.

Figure 1: Size of Tax Expenditures in Pakistan



Source: GOP. (Various issues). Tax expenditure reports (2020, 2021, 2022, 2023, 2024). Federal Board of Revenue.

According to economic theory, for optimal resource use, economic agents or production sectors must be treated equally. This allows market forces to operate effectively, ensuring the optimal resource allocation. However, if certain activities or groups receive special treatment that alters their cost of doing business, the influence of market forces on resource allocation becomes restricted. This can lead to the misallocation of resources and a decline in overall welfare.

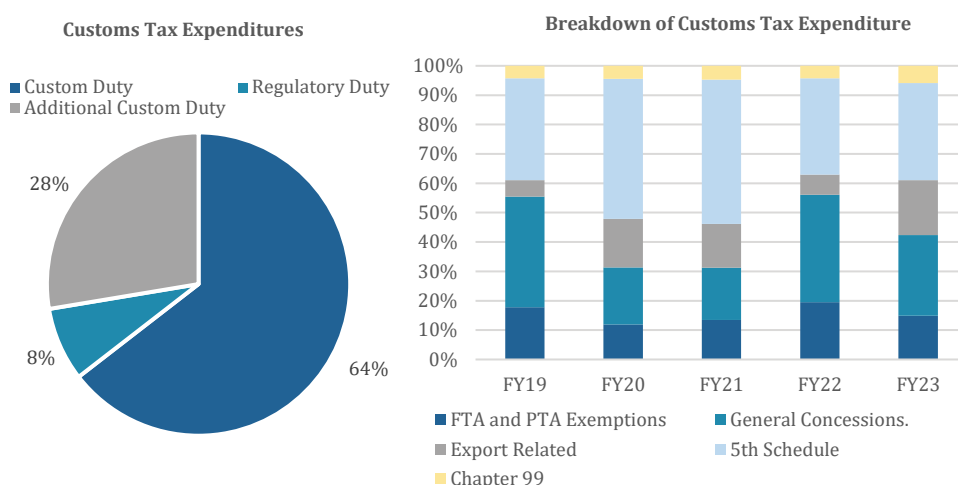
Tax expenditures are a form of distortion that adds complexity to the tax system, narrows the tax base, complicates compliance, reduces government revenues, and exacerbates inequalities. We present key insights and recommendations on tax expenditures for indirect taxes in Pakistan. The tax expenditure on

income tax could not be examined due to the unavailability of the required data.

KEY FINDINGS

To calculate tax expenditures under customs, we used data from Pakistan Customs and used statutory rates as benchmarks. The difference between the tax at the statutory rate and the effective rate is known as the tax expenditure. We applied the same data to determine tax expenditures in sales tax at the import stage. For domestic sales, we utilised the Input-Output matrix to calculate sales tax expenditures. Our findings, shown in Table 1 and Figure 2 below, indicate that tax expenditures on customs duty and sales tax continue to increase.

Figure 2: Breakdown of the Customs Tax Expenditures



Source: Authors' calculations.

Table 1: Tax Expenditures under Customs (Rs in billion)

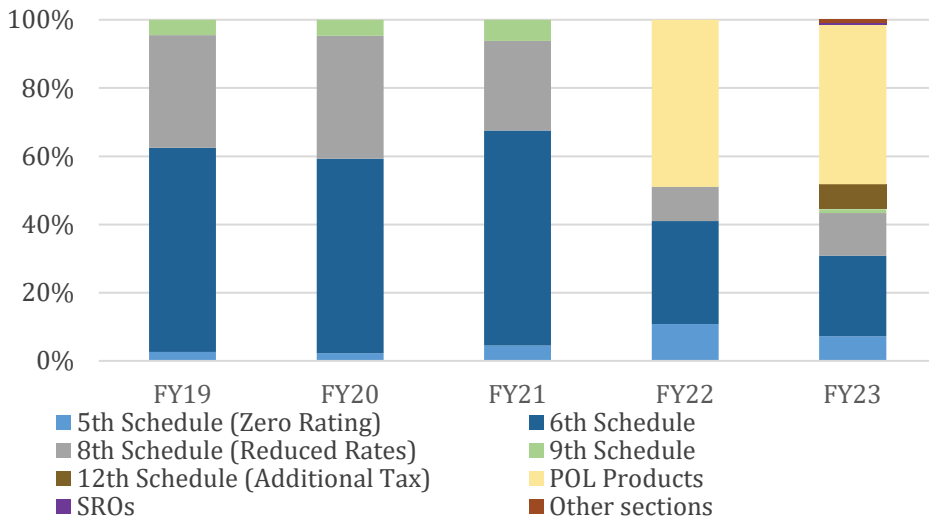
	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Tax Expenditures under Customs	253.11	287.8	342.89	521.7	599.02
Percentage of FBR Collection	6.60%	7.20%	7.20%	8.50%	8.50%
Percentage of the total Tax Expenditures	22%	21.90%	23.10%	23%	...

Source: GOP. (Various issues). Tax expenditure reports (2020, 2021, 2022, 2023, 2024). Federal Board of Revenue.

The sales tax expenditures (including additional sales tax expenditures), calculated from the import data, are Rs. 872.96 billion. This includes Rs. 638.81 billion of sales tax expenditures, with the remainder representing expenditure on

additional sales tax at the import stage. For domestic production and sales, using I-O table data and the RA-Gap model, we find that the sales tax expenditures on domestic goods are Rs. 2,663.71 billion. The details are shown in Figure 3 below.

Figure 3: Historical Overview of the Sales Tax Expenditures



Sources: Authors' calculation and GOP (various issues).

To study sales tax expenditure on services, we examined the tax structures of Punjab and Sindh. The tax authorities in both provinces differ from the FBR's practice; instead

of using a negative list, the two provinces operate with a positive list. This means that only activities listed in the respective acts are taxed at the specified rate.

Consequently, activities that are exempt from sales tax are fully exempt, with no discrimination among participants. Therefore, according to the definition of tax expenditures used in this study, such treatments cannot be classified as tax expenditures. The reduced rate is, however, optional in some cases. When available, the taxpayer can choose to avail themselves of the concession while surrendering the input tax adjustment. Alternatively, the taxpayers may pay the tax at the statutory rate and claim the input tax adjustment.

RECOMMENDATIONS

Following our analysis, we present the following policy recommendations:

- I. SRO-based exemptions should be discouraged, as they not only negatively impact tax collection but also complicate the system.
- II. The purpose of tax expenditures in any form—such as concessions, exemptions, or reduced rates—should be well articulated. This clarity will aid in evaluating the specific tax expenditure using assessment methods like cost-benefit analysis.
- III. The industries or businesses that should benefit from the tax expenditures ought to be selected based on specific productivity benchmarks, which have clear targets and sunset clauses.
- IV. Tax exemptions should be withdrawn for sectors that have enjoyed protectionism for a considerable period and still do not meet specific productivity benchmarks, such as the automobile sector.
- V. Data should be made public for improved research and analysis.

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