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Tax System Modernization: A Holistic Exploration of Modernization Strategies through Literature Review and Empirical Analysis

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Abstract

This study investigates the imperative of modernizing tax systems, employing a comprehensive approach that combines theoretical exploration with empirical inquiry. The study unfolds against the backdrop of increasing global complexity and the pressing need for tax systems to adapt to evolving socio-economic landscapes. The overarching purpose of this research is to comprehensively explore tax system modernization by unraveling theoretical underpinnings, scrutinizing diverse modernization strategies, and critically evaluating the effectiveness of the Goods and Services Tax (GST) model as a contemporary taxation framework. The methodology integrates a meticulous literature review synthesizing key theories and empirical evidence with an in-depth analysis of the GST model's implementation and impact. coverage of various disciplines such as economics, accounting and Finance, public policy, and taxation. The findings reveal a wealth of empirical evidence supporting the effectiveness of Goods and services tax as a contemporary effort of the modern tax system. This study's significance lies in its contribution to the discourse on tax policy and administration, offering actionable insights for policymakers, economists, and stakeholders navigating the complexities of modern tax systems.

Keywords: Tax system, Modernization, GST Model, Modern tax, tax theories

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Introduction

Modernizing the tax system refers to the process of updating and upgrading the processes, procedures, and technologies for collecting, monitoring, and administering taxes in a state or jurisdiction. This modernization can include a variety of tasks that are aimed at streamlining procedures, increasing efficiency and compliance, and improving taxpayer services (Kinuu, 2023). Modernizing tax systems is considered as very essential to making tax systems efficient and effective (Musseng et al., 2023). It involves updating taxation methods, processes, and technology in tax administration to enhance efficiency, transparency, and responsiveness to stakeholders' needs. This may entail electronic filing systems, streamlined tax rules, improved data analytics, and compliance processes. Furthermore, Tax system modernization involves updating technology, policies, and procedures to adapt to evolving taxpayer and tax authority requirements. It encompasses adopting digital tools, simplifying tax law, and reforming collection and enforcement practices (Eze et al., 2021). A tax system comprises a framework of laws, policies, and procedures administering tax collection and distribution by a government. It includes assessment, collection, enforcement methods, tax law design, and revenue allocation (Taddesse, 2023). The tax systems are crucial for a country's economic growth and development, facilitating the attainment of sustainable development objectives. However, numerous nations face challenges in raising sufficient revenues through taxes, impeding investment in public services, poverty alleviation, and economic growth (IMF, 2021). The Tax systems need to be reviewed and revised to meet the objectives for which they have been designed and implemented. A well-structured tax system can generate revenue, stimulate economic activity, mitigate income inequality, curb tax evasion, and enhance the overall taxpayer experience (Eze et al., 2016). Conversely, outdated systems can impede growth and development (Saragih et al., 2023; Brys et al., 2016). According to Deshmukh et al. (2022), the Goods and Services Tax (GST) represents a contemporary and modern approach to the tax system, aiming to streamline the tax structure by consolidating various indirect taxes into a unified framework. Countries like Australia, Canada, India, and others have developed their own GST models tailored to their specific national contexts.

The researchers endeavor to enhance the methodological robustness of their study, aiming to furnish a thorough and dependable reference for policymakers, tax authorities, taxpayers, planners, and analysts grappling with the intricacies of the contemporary tax system. Our goal is to offer valuable insights about tax system modernization that can inform improved taxation practices and serve as a guiding light for future research endeavors in this pivotal field.

Objectives

- a) To understand the key theories and concepts underlying tax system modernization
- b) To investigate ways of tax system Modernization
- c) To evaluate the efficacy of Goods and Services Tax (GST) as a contemporary taxation framework.

3. Research Methodology

A comprehensive literature review was conducted to identify relevant theoretical frameworks of tax system modernization. The literature review covered academic journals, government

publications, and other relevant sources. A literature review is commonly understood as a methodical approach to gathering and consolidating past research (Tranfield, Denyer, & Smart, 2003). When conducted effectively, it serves as a cornerstone for knowledge advancement and theory development (Webster & Watson, 2002). Through the integration of insights from numerous empirical studies, a literature review possesses the capacity to address research inquiries with a depth and breadth unmatched by any individual study. A literature review synthesizes research findings, providing evidence on a meta-level and highlighting areas for further study, crucial for building theoretical frameworks and conceptual models. By analyzing existing literature, researchers identify patterns and gaps, refining theories and guiding future research to deepen understanding in the field (Kraus, et al., 2023).

Through a critical literature review, the study examines the Modernization of tax system. According to Carliner (2011), a critical review is a thorough review process that enables researchers to analyze, assess, and synthesize literature to identify research gaps, consistency issues, and discrepancies in earlier studies. The researchers conducted a literature search utilizing data sourced from the SCOPUS database and the Google Scholar search engine. Additionally, they employed snowballing and citation mining techniques (Mpofu, 2021) to augment their literature review. Eligible papers were identified using information gleaned from pertinent reference lists, and iterative snowballing techniques were employed to trace lead authors in the field (Jalali & Wohlin, 2012). The exhaustive examination of the existing literature persisted until reaching a saturation point, indicating that further exploration did not unearth any additional insights or information relevant to the topic at hand (Sebele-Mpofu, 2020).

4. The Role of Tax System Modernization

Modernization of tax systems is essential to adapt to the evolving economic environment marked by globalization and digitization. This literature review examines the key theories and concepts that shape the modernization of the tax system, focusing on empirical evidence and methodological approaches. Basically, if we examine various topics such as Economics, Accounting and Finance, Public Policy, and Tax in which the study highlights the effectiveness of Goods and Services Taxation (GST) as a modern reform process.

Lee (2016) evaluated the effectiveness of tax system modernization efforts in Korea and found that tax system modernization had improved tax collection efficiency, compliance rates, and taxpayer satisfaction. The authors also identified several challenges, including the need to balance tax collection with taxpayer rights and the need to address the digital divide in tax administration. Another study by Alabi (2022) analyzed the impact of tax system modernization on revenue generation in Nigeria and revealed that tax system modernization had led to increased tax revenue and reduced tax evasion. Tyce (2020) delves into the role of tax system modernization in promoting sustainable economic development in Kenya. The study found that it had contributed to improved revenue collection, enhanced taxpayer compliance, and increased transparency and accountability in tax administration. The authors also identified several challenges, including the

need to improve the capacity of tax administration staff and address corruption and political interference in tax administration.

Furthermore, Mokakale (2018) analyzed the impact of tax system modernization on taxpayer compliance in Portugal and summarized that tax system modernization had led to improvements in taxpayer compliance, including reduced tax arrears and increased voluntary compliance. The authors argue that several factors influence taxpayer compliance, including the complexity and clarity of tax regulations, the level of taxpayer education and awareness, and the quality of taxpayer services.

Zaynalov and Ahrorov (2019) delve into the evolution of tax science and explore the changing paradigms in tax theory and practice. The study investigates various perspectives on the nature of taxation and provides a comparative analysis of tax burdens across different countries. Specifically, the authors analyze the reduction of the tax burden in Uzbekistan for various categories of enterprises, offering insights into the shifting dynamics of tax policy in the region.

One of the key conclusions drawn from the study is the transition from a mechanistic worldview to a more dynamic and evolutionary perspective on taxation. The authors argue that the traditional statistical approach to taxation is giving way to a more nuanced understanding of tax processes as dynamic and complex phenomena. This shift in perspective underscores the importance of adopting principles of self-organization and self-regulation as the foundation for contemporary tax paradigms. By emphasizing the role of tax self-regulation in achieving market optimization and stable order, the study highlights the need for adaptive and flexible tax policies that can respond to the dynamic nature of economic, social, and humanitarian systems.

The study by Zaynalov & Ahrorov (2019) aims to investigate the influence of tax knowledge and modernization of tax administration on tax compliance, with tax awareness acting as a moderation variable and the study's findings reveal that tax knowledge and the modernization of tax administration significantly impact tax compliance. Moreover, tax awareness is identified as a crucial moderator, strengthening the influence of tax knowledge on tax compliance. The study underscores that tax compliance is likely to increase when individuals possess a comprehensive understanding of taxation and a heightened awareness of their responsibilities as tax-paying citizens. Through its empirical analysis, this study provides valuable insights for policymakers and tax authorities, emphasizing the importance of fostering tax knowledge, awareness, and modernization efforts to enhance tax compliance rates and bolster state revenue collection.

These studies provide valuable insights into the effectiveness and challenges of tax system modernization efforts in different contexts. The findings suggest that tax system modernization can significantly improve revenue collection, taxpayer compliance, and service delivery. However, it also requires careful attention to the needs and rights of taxpayers and the capacity and integrity of tax administration staff.

4.1 Table 1: Theories and their relevance to the Modern tax system

S.no	Theory	Literature Reviewed	Relevance to aspects of Taxation
1	Behavioral Economics Theory	James, (2015)	Taxpayers are irrational; this theory will help policymakers gain behavioral insights into taxpayers.
2	Complexity theory	Musimenta, (2020); Tanzi, V. (2013)	Tax Systems are complex so tax authorities must be prepared to experiment with different solutions and adapt to changing circumstances.
3	Social learning theory	Ohemeng & Owusu, (2015)	Tax authorities can benefit from studying the successes and failures of other countries and organizations that have undergone tax system modernization
4	Resource dependency theory	Bartley et al., 2008	Tax authorities must have access to the necessary resources, such as funding, technology, and skilled personnel, to successfully implement modernization initiatives.
5	Co-creation theory	Langham & Paulsen, 2017	Tax authorities can create more effective and sustainable solutions by involving taxpayers in the design and implementation of modernization initiatives.
6	Governance theory	Pardo et al, (2010); Katsamunsk, (2016).	Effective governance can help overcome modernization barriers, such as resistance to change and bureaucratic inertia.
7	Public value theory	Chohan, 2021	Tax authorities should prioritize the needs and preferences of taxpayers
8	Institutional theory	Williams, C. 2020.	The broader institutional context, including political and economic factors, influences changes in tax policies and practices.

9	Digital transformation theory	Todorut, 2018 Gudergan & Mugge, 2017	digital tools and platforms can be used to streamline tax administration processes, reduce errors, increase compliance, and improve taxpayer services
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Source: Authors' Compilation

The table presented highlights the strong theoretical foundation upon which the modern tax system is built. It focuses on a variety of perspectives, each providing unique insights into tax dynamics. From understanding taxpayer behavior to analyzing complex systemic interactions, from analyzing the role of technology to emphasizing governance structures, these theories come together to create modern tax policy and business strategy, management, and progress reports. The modern tax system through the use of multidisciplinary approaches attempts to adapt itself to the changing socio-economic and technological conditions to become more transparent, efficient and they will create social value

4.2. Key elements of the modernization of the tax system include:

1. **Digitization and Automation:** The shift from manual, paper-based processes to digital systems and automation technologies. This could include online tax returns, electronic payment systems, and automated data processing.
2. **Data Integration:** Integrating disparate data sources and systems to improve information sharing and analysis. This can help tax authorities identify gaps, identify tax evasion, and improve compliance efforts.
3. **Simplified Tax Laws:** Tax laws and regulations are reviewed and simplified for taxpayers and tax authorities to make them easier to understand and comply with. Simplification can reduce administrative burdens and compliance costs.
4. **Risk-Based Strategies:** Use risk-based strategies to focus enforcement efforts on high-risk taxpayers and activities. This can include data analytics and predictive models to better target statistics and analysis.
5. **Improving taxpayer services:** Increasing taxpayer education and support services to help individuals and businesses understand their tax responsibilities and navigate the tax system more efficiently. It can provide online resources, taxpayer hotlines, and outreach programs.
6. **International cooperation:** Cooperation with other countries and jurisdictions to solve cross-border tax problems to avoid tax evasion, and to improve the exchange of information.
7. **Performance Measurement:** Establish metrics and performance indicators to assess the efficiency and effectiveness of the tax system and identify areas for further improvement.

Updating the tax system is an ongoing process, as the tax system constantly adapts to changes in technological, economic conditions and legal environment to improve revenue collection, increase compliance, ensure that taxes the system is accurate and realistic ((Zaynalov & Ahrrov, 2019); (Svetlozarova, 2023)).

4.3. Ways to Modernize Tax Systems

1. Tax simplification: Tax systems should be simplified to reduce compliance costs for taxpayers and enhance voluntary compliance (Kopczuk, 2006) author argues that simplifying the tax system by reducing the number of tax brackets, eliminating tax exemptions, and simplifying tax forms can improve taxpayer compliance and reduce the burden of tax preparation.

2. Tax base broadening: Diamond and Saez (2011) argue that tax bases should be broadened by reducing tax exemptions, loopholes, and deductions. The authors present that broadening the tax base can increase revenue collection without raising tax rates and make the tax system more equitable by ensuring that everyone pays their fair share.

3. Tax competition: Competition among the various countries enables a business environment that is attractive to businesses and investment by offering lower tax rates and a favorable tax environment (Keen, 2001). The author states that tax competition can promote economic growth and job creation but can also lead to a "race to the bottom" in which countries sacrifice revenue and public services.

4. Tax Integration: Integrating different taxes into a single tax system can simplify tax compliance, reduce administrative costs, and promote economic efficiency (Bird, 2005). The paper finds that integrating different taxes into a single tax system, such as the value-added tax (VAT) or the flat tax, can simplify tax compliance and reduce administrative costs for taxpayers and tax authorities.

5. Tax transparency: According to the OECD (2009), the tax systems should be transparent, and tax authorities should disclose information about tax rules, rates, and enforcement. The OECD suggests that improving tax transparency can reduce tax evasion, improve public trust in the tax system, and promote good governance.

6. Tax administration: Tax administration can be improved by modernizing tax collection methods, upgrading tax information systems, and enhancing the capacity of tax authorities to detect and prevent tax evasion (Camp, 2009). The IMF research and its policy statements mention that improving tax administration can increase revenue collection while minimizing compliance costs for taxpayers by modernizing tax collection methods, upgrading tax information systems, and enhancing the capacity of tax authorities to detect and prevent tax evasion (IMF, 2011).

7. Tax expenditure: This indicates that government spending programs that take the form of tax credits, deductions, and exemptions should be analyzed and evaluated in the same way as direct spending programs (Gale, 2013). The author states that tax expenditures should be evaluated based on their effectiveness, efficiency, and distributional impact, and policymakers should consider them.

8. Tax harmonization: This aligns with the idea that countries should coordinate their tax policies to reduce tax competition and promote economic integration (Devereux & Griffith, 1999). Tax harmonization can reduce tax competition and promote economic integration by harmonizing tax rates, bases, and administration across different countries or regions.

9. Tax policy coordination: The tax policies should be coordinated and must be in alignment with other economic policies, such as monetary policy and fiscal policy (Auerbach, 2006). This is

essential to ensure that tax policy is consistent with broader economic goals, such as promoting economic growth and stability.

10. Tax equity: This theory holds that tax systems should promote fairness and equity, particularly by ensuring that those with more resources pay a larger share of taxes (Piketty, 2014). The author argues that progressive tax rates, estate taxes, and taxes on wealth or financial transactions can make the tax system more equitable and reduce income and wealth inequalities.

11. Tax revenue diversification: Governments should diversify their sources of revenue to reduce dependence on any one tax source (Bird & Gendron, 2014). In their research, the authors argue that introducing new taxes or expanding existing taxes to capture new sources of revenue, such as environmental taxes or taxes on digital transactions, can diversify government revenue and reduce dependence on any one tax source.

5. Goods and Services Tax (GST) as a Contemporary Tax System and Its Models

Goods and Services Tax (GST) stands as a contemporary and modern tax system designed to streamline the tax structure by subsuming various indirect taxes under a unified framework. As noted by Deshmukh et al. (2022), GST represents a paradigm shift in taxation, aiming to simplify compliance, enhance efficiency, and reduce tax cascading. By taxing the value added at each stage of production and distribution, GST eliminates the cascading effect of multiple taxes, thereby promoting economic efficiency and competitiveness (Bhattarai, 2020). This modern approach to taxation is characterized by its broad tax base, which encompasses a wide array of goods and services, ensuring a more equitable distribution of the tax burden across different sectors of the economy. Moreover, GST facilitates better tax administration and compliance through the use of technology-driven processes such as online filing and invoice matching (Deepti, 2022). Such features underscore GST's contemporary relevance as a modern tax system aligned with the needs and challenges of today's dynamic economic landscape.

Furthermore, the adoption of GST reflects a broader global trend towards tax system modernization and international tax harmonization. As highlighted by Lim (2021), many countries have embraced GST as a means to enhance revenue generation, promote economic growth, and facilitate cross-border trade. In this context, GST catalyzes economic integration and globalization, providing a common tax framework that fosters harmonization and cooperation among nations. By aligning their tax systems with international best practices, countries can attract foreign investment, stimulate domestic production, and improve their competitiveness in the global marketplace (Pistone, 2014). Thus, GST represents not only a contemporary solution to domestic tax challenges but also a strategic tool for advancing broader economic objectives in an increasingly interconnected world.

5.1. Models of GST

A) Australian GST model

The Australian Goods and Services Tax (GST) system represents a significant advance in the country's tax system and is characterized by its broad excise tax. Enacted on 1 July 2000, the GST

aims to simplify the tax system by replacing inefficient state taxes. It was meant to enhance economic growth and increase revenue in the federal and state governments (James, 2021).

Historically, introducing a GST in Australia dates back to the early 1980s when Liberal Party leader John Hewson first announced his Fightback! Planning Conference. However, the proposal met stiff opposition and helped defeat the Liberal-National Alliance in the 1993 federal election (Alvey & Roan, 2015).

Despite initial opposition, the need for tax reform gained momentum in the 1990s due to concerns about the complexity and inefficiency of the current tax system. In 1998, the election of the Howard government, the new Cabinet, led by Prime Minister John Howard and Treasurer Peter Costello, proposed the GST as a critical component of its tax reform package (Tilly, 2021).

After months of negotiation and debate, the Australian Parliament passed the GST in 1999, allowing it to be implemented the following year. The Australian GST framework reflects a single rate of 10%, where most goods and services are taxed, while essential goods such as fresh food, education, and health care are exempt or tax-free (Tran-Nam, 2019).

Since its inception, Australia's GST has been credited with simplifying the tax system, stabilizing revenues, and reducing compliance costs for businesses. However, it has also faced criticism for its retroactivity and impact on low-income households. Overall, the Australian GST framework represents an essential milestone in the nation's tax reform history, demonstrating the potential for bilateral collaboration and public participation for policymaking substantial reform (Tax Institute, 2022).

B) The "Quebec GST" or "Quebec Sales Tax (QST) model

"Quebec Model" or "Quebec Sales Tax (QST) Model" means the sales tax system used in the province of Quebec, Canada. In Canada, sales tax is collected at the federal and provincial levels. The national sales tax is the Goods and Services Tax (GST), applied nationwide, while the states have their own sales tax (Smart, 2012).

The following features characterize the Quebec model.

1. **Harmonized Sales Tax (HST):** Quebec combines its provincial sales tax, called the Quebec Sales Tax (QST), with the federal Goods and Services Tax (GST) into a Harmonized Sales Tax (HST) system.
2. **Administration:** The QST portion of the HST is administered by the Quebec government, while the federal GST portion is administered by the Canada Revenue Agency (CRA).
3. **Tax rate:** In Quebec, the combined HST rate is the sum of the QST and GST rates. Prices may vary over time and fluctuate based on government decisions and the economy.
4. **Exemptions and exemptions:** Similar to other sales tax systems, the Quebec model may have exemptions and exemptions for certain goods and services that are considered essential for specific groups such as low-income individuals

Overall, the Quebec sales tax system is designed to simplify the tax system by consolidating provincial and federal taxes into a single system, making it more efficient for businesses and consumers.

The history of the Quebec GST system is closely linked to the development of sales tax policies in Canada, particularly in response to national industry and provincial demands for tax exemptions.

The Canadian Goods and Services Tax (GST) model

The Canadian Goods and Services Tax (GST) system is another example of a broad-based consumption tax used to improve the national tax system. Beginning on January 1, 1991, GST replaced the excise tax, aiming to modernize the tax system, increase fiscal efficiency, and generate additional revenue for the federal government (De the Fair & Walpole, 1999). 2020)

Historically, in the early 1990s, the Mulroney government, led by Prime Minister Brian Mulroney and Finance Minister Michael Wilson, successfully introduced the GST as part of its comprehensive tax reform program (Chabot & McMahon, 2013).

The decision to introduce GST faced massive opposition from various quarters, including opposition political parties, corporations, and the general public, with critics saying GST would lead to higher prices, increased administrative burden on businesses, and a substantial economic downturn affecting low-income households. The Mulroney administration conducted extensive public consultation to address these concerns and garner public support for reform. It launched an educational campaign explaining the rationale and potential benefits of GST. Despite these efforts, the GST remained a controversial issue, contributing to the defeat of the Progressive Conservative government in the 1993 federal election (Teik et al., 2023).

After the election, the Liberals, led by Prime Minister Jean Chrétien and Finance Minister Paul Martin, took office and initially promised to abolish the GST. However, after considering the economic implications and challenges of abolishing the tax, the government finally decided to retain the GST. However, it introduced changes to address societal concerns, such as special needs tax exemptions (Plamondon, 2017).

Since its implementation, Canada's GST has remained an integral part of its tax system, with some provinces' unified sales tax (HST). Despite its controversial origins, GST has helped simplify taxes, increase revenue stability, and increase economic efficiency in Canada (Boadway & Koeppl, 2021).

C) The Kelkar-Shah Model

The Kelkar-Shah model, named after economists Vijay Kelkar and Ajay Shah, proposed a comprehensive overhaul of India's tax system. It has been proposed that central and state taxes be merged into a unified GST (Goods and Services Tax) system. The model aims to simplify the tax system, reduce the compliance burden, eliminate cascading effects, and improve the tax system's efficiency. The Kelkar-Shah framework has gained attention as a potential framework for tax reform in India, contributing to discussions and debates on implementing GST in the country (Kankaria, 2021).

The Kelkar-Shah framework emerged as an essential proposal for tax reform in India in the early 2000s amid growing concerns over the complexity and inefficiency of the existing tax system.

A vital principle of the Kelkar-Shah model is consolidating several indirect taxes levied by the central and state governments into a single, unified Goods and Services Tax (GST). The Objective of this merger is to eliminate the cascading effect (taxes on taxes) and simplify the tax system, thereby increasing the economy's overall efficiency (Panda, 2022).

The model envisaged a simple tax regime with minimum exemptions and extensive tax credits, which would facilitate compliance by taxpayers and reduce the chances of tax evasion, including modern technological and administrative reforms that will be proposed to strengthen tax administration and law enforcement.

The Kelkar-Shah model's comprehensive scope and ability to address long standing tax policy issues has captured the attention of policymakers, economists, and stakeholders in India. Despite these challenges, the latest draft of India's GST regime incorporated the Kelkar Shah model elements, which was finally introduced in July 2017. The implementation of GST marked a milestone in India's tax history, aimed at facilitating compliance, revenue and collection, economic development, and enforcement.

What is the grand bargain in the Kelkar Shah model?

The "Grand Bargain" in the Kelkar-Shah model is central to their proposal for comprehensive tax reform in India. This concept involves an agreement between the central and state governments to bring about significant changes in the tax system, especially in adopting the integrated goods and services tax (GST) regime (Maruthi, 2020). Under the master deal, the central government will agree to share a portion of its tax revenue with state governments to compensate for the loss of fiscal autonomy due to implementing GST. In return, state governments would agree to give up some of their taxation powers and align with central government tax policies (Sharma, 2022).

This agreement was crucial to achieving consensus among various stakeholders in the tax reform process, including central state government, political parties, business representatives, and taxpayers, on what the master agreement aims to provide, balancing the need for economic integration. Overall, the master deal proposed in the Kelkar-Shah model represented a pragmatic way to address the challenges inherent in Indian government policy while promoting investment and the objectives of integration, efficiency, and equity in the tax profession.

D) The Bagchi Poddar model

The Bagchi Poddar model emerged against India's long-debated attempt to implement the Goods and Services Tax (GST), which was in the spotlight for years before it was finally introduced in 2017. Various economists and experts are involved, including Mihir Kanti Bagchi and Amaresh Poddar. They started to suggest. Their model was developed in response to the challenges inherent in the Indian government system, where the central and state governments wield considerable taxing power (Nair, 2011). During this period, India faced opposition from state governments concerned about potential revenue losses and administrative difficulties associated with transitioning to a new tax. The historical context of the Bagchi Poddar model is India's continued pursuit of comprehensive economic reforms, a more efficient and integrated tax system, and increasing national economic and political development that shaped earlier efforts to carry out tax reforms (Nayyar & Singh, 2018). Finally, the Bagchi Poddar model has contributed to the ongoing

discourse on GST implementation in India, fueling the debate by emphasizing gradualism, negotiation, and practical integration.

E) Indian GST model

The Indian Goods and Services Tax (GST) regime represents a significant overhaul of the country's tax system, aimed at streamlining indirect taxation and creating a single national market. The GST in India was first proposed in early 2000 as a comprehensive tax reform program aimed at simplifying the tax system, reducing tax evasion, and enhancing economic efficiency, but by the government of India, part of a complex system with multiple tax levels in central and state governments. Over the years, various committees and panels of experts were formed to study the feasibility and design of GST for India. A notable move was the setting up an empowered committee of the state finance minister in 2000 to consider issues related to GST and coordinate efforts between the central and state governments (Mitra, 2017). Despite initial resistance and disagreements over critical aspects of GST design, such as the revenue sharing gap between the central and state governments, steady progress in GST implementation was developed in the 2000s and passed in 2016 after extensive negotiation and revision (Verma & Singh, 2019).

On July 1, 2017, India officially launched the GST, replacing cumbersome central and state taxes with a unified tax system. The Indian GST regime reflects a dual structure, with separate central and state tax components, aimed at preserving fiscal autonomy at both levels of government to ensure smooth tax administration and compliance (Baby, 2020).

Since implementation, various changes and modifications have been made to address operational challenges, streamline compliance processes, address concerns raised by various stakeholders, demonstrate independence, raise awareness, and drive economic growth (Mutagwaba et al., 2018).

Which model is Indian GST?

Implementing the Goods and Services Tax (GST) in India is based on a dual GST model, which means that central and state governments tax equally on taxable goods and services supplied simultaneously.

There are two components under the Indian GST regime: Central Goods and Services Tax (CGST): Levied by the central government on the state's supply of goods and services. State Goods and Services Tax (SGST): Levied by state governments on the supply of goods and services within the state. Apart from CGST and SGST, there is also Integrated Goods and Services Tax (IGST), which is levied by the central government on the interstate supply of goods and services, after which the revenue collected by IGST is shared between the central and the state governments (Chaudhuri & Sethia, 2022). This dual GST model aims to create a unified national market, reduce tax cascading, improve compliance, and boost economic growth by eliminating barriers to interstate trade and promoting efficiency in the tax system.

5.1.2 The difference between Kelkar Shah, Bagchi Poddar, and Indian GST models

While the Indian Goods and Services Tax (GST) system shares some aspects of the Kelkar-Shah model, the model proposed by Vijay Kelkar and Ajay Shah is not analogous to the Indian GST system as implemented contains various elements and different features of the Kelkar-Shah sample. For example, the Kelkar-Shah model recommended a radical overhaul of the Indian tax

system, consolidating multiple indirect taxes into a single GST system with full exemptions and a broad tax base. The proposal included the framework with various amendments and modifications to accommodate the interests of tax stakeholders, including state and federal governments. The Indian GST framework also includes two GST models, with separate central and state tax components. In contrast, the Kelkar-Shah model proposed an integrated GST at two levels of government. Although the Kelkar-Shah model influenced discussions and debates on the implementation of GST in India, the final GST framework adopted in the country represents different considerations, a unique blend of agreements, and perspectives on the specifics of Indian government policy and economic conditions. The difference between the Kelkar-Shah and Bagchi-Poddar models is that the Kelkar-Shah model proposes taxation at the central and state levels. In contrast, the Bagchi-Poddar model asserts at the central only. Kelkar - Shah model is similar to The Canadian model, and the Bagchi- - Podder model is similar to the Quebec model.

6. Conclusion

This research offers a comprehensive examination of tax system modernization through a synthesis of empirical studies, theoretical frameworks, and change strategies. The findings underscore the efficacy of Goods and Services Tax (GST) as a contemporary approach to tax system enhancement. The study's insights are invaluable for policymakers, tax professionals, and researchers, emphasizing the necessity of ongoing innovation and adaptability in tax policy and administration. Future research avenues may include further exploration of specific modernization aspects, such as digital taxes, and assessment of long-term impacts.

Authors' Contributions

- Adinew Erkeno: Contributed significantly as the corresponding author, collecting and conceptualizing the article, and transforming it into a research paper while pursuing his Ph.D.
- Dr. K. Lubza Nihar: Provided guidance and proofreading as one of the first author's research supervisors.
- Dr. B. Padma Narayan: Assisted with supervision, edited, and reviewed the paper as one of the first author's research supervisors.

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References

Alvey, J., & Roan, A. (2015). A public policy case study of the introduction of the goods and services tax: Tax reform can be successfully achieved. *Journal of the Australasian Tax Teachers Association*, 10(1), 67–86.

Auerbach, A. J. (2006). "Who Bears the Corporate Tax? A Review of What We Know." In J. R. Brown (Ed.), *Tax Policy and the Economy*, Volume 20 (pp. 1-40).

- Baby, M. K. (2020). Three years of GST regime: a critical review. *Shod Sanchar Bulletin*, 10(40), 194-199.
- Bartley, T., Andersson, K., Jagger, P., & Laerhoven, F. V. (2008). The contribution of institutional theories to explaining decentralization of natural resource governance. *Society and Natural Resources*, 21(2), 160–174.
- Bhattarai, K. (2020). Impacts of GST reforms on efficiency, growth and redistribution of income in India: A Dynamic CGE Analysis. *Journal of Development Economics and Finance*.
- Bird, R. M. (2005). "Value-Added Tax: A Future Source of Government Revenue?" *National Tax Journal*, 58(4), 643-662.
- Bird, R. M. (2012). The GST/HST: Creating an integrated sales tax in a federal country. *Rotman School of Management Working Paper*, (2115620).
- Bird, R. M., & Gendron, P.-P. (2014). "The VAT in Developing and Transitional Countries." Cambridge University Press.
- Boadway, R., & Koepl, T. V. (2021). The 'Demand Stabilization Mechanism': Using Temporary GST Cuts as Automatic Fiscal Policy. *CD Howe Institute Commentary*, p. 612.
- Camp, B. T. (2009). Theory and practice in tax administration. *Va. Tax Rev.*, 29, 227.
- Carliner, S. (2011, October). Workshop in conducting integrative literature reviews. In *2011 IEEE International Professional Communication Conference* (pp. 1-3). IEEE.
- Chabot, J. H., & McMahon, M. A. (2013). The evolution of indirect taxes. *Can. Tax J.*, pp. 61, 19.
- Chaudhuri, D. D., & Sethia, D. (2022). The Grand Federal Bargain for Goods and Services Tax (GST) in India.
- Chohan, U. (2021). *Public value and the digital economy*. Routledge.
- De la Feria, R., & Walpole, M. (2020). The impact of public perceptions on general consumption taxes.
- Debnath, P. (2016). Implementation of goods and service tax (GST) in India and its control over the tax collection. *Journal of Commerce & Trade*, 11(1), 28–35.

- Deepti, D. M. G. (2022). Income Tax reforms–Transforming Tax administration through Faceless Assessment. *Specialusis Ugdymas*, 2(43), 444-464.
- Deshmukh, A. K., Mohan, A., & Mohan, I. (2022). Goods and services tax (GST) implementation in India: A SAP–LAP–Twitter analytic perspective. *Global Journal of Flexible Systems Management*, 23(2), 165-183.
- Devereux, M. P., & Griffith, R. (1999). "The Taxation Implications of International Monetary Integration." *Oxford Review of Economic Policy*, 15(2), 70–88.
- Diamond, P. A., & Saez, E. (2011). "The Case for a Progressive Tax: From Basic Research to Policy Recommendations." *Journal of Economic Perspectives*, 25(4), 165-190.
- Eze, N. M., Iorwuese, T. E., & Baba, W. B. (2016). The challenges and imperative of tax system reform in Nigeria. *International Journal of Economics and Finance*, 8(3), 151-164.
- Gale, W. G. (2013). "Reducing the Deficit by Reforming Tax Expenditures." *Journal of Economic Perspectives*, 27(3), 57–78.
- Gudergan, G., & Mugge, P. (2017, January). The gap between practice and theory of digital transformation. In *Proceeding Hawaii International Conference of System Science, Hawaii* (pp. 1-15).
- IMF. (2011). "Improving Tax Administration in Developing Countries." IMF Policy Paper.
- Jalali, S., & Wohlin, C. (2012, September). Systematic literature studies: database searches vs. backward snowballing. In *Proceedings of the ACM-IEEE international symposium on Empirical software engineering and measurement* (pp. 29-38).
- James, K. (2021). Reconsidering the case for tax reform during a crisis. *Monash University Law Review*, 47(2), 81–122.
- Kankariya, C. R. A. (2021). *An Analysis of Impact of Goods & Services Tax (GST) on Traders of Goods in Jalgaon District* (Doctoral dissertation, NORTH MAHARASHTRA UNIVERSITY, JALGAON).
- Keen, M. (2001). "The Globalization of Tax Policy: What Has Happened and What Are the Implications?" *National Tax Journal*, 54(4), 777–802.

- Ohemeng, F. L., & Owusu, F. Y. (2015). Implementing a revenue authority model of tax administration in Ghana: An organizational learning perspective. *The American Review of Public Administration*, 45(3), 343-364.
- Kopczuk, W. (2006). Tax simplification and tax compliance: An economic perspective. *Bridging the tax gap. Addressing the crisis in tax administration*, pp. 111–143.
- Kraus, S., Mahto, R. V., & Walsh, S. T. (2023). The importance of literature reviews in small business and entrepreneurship research. *Journal of small business management*, 61(3), 1095-1106.
- Langham, J. A., & Paulsen, N. (2017). Invisible Taxation: Fantasy or Just Good Service Design. *Austl. Tax F.*, 32, 129.
- Lee, H. C. (2016). Can electronic tax invoicing improve tax compliance? A case study of the Republic of Korea's electronic tax invoicing for value-added tax. *A Case Study of the Republic of Korea's Electronic Tax Invoicing for Value-Added Tax (March 7, 2016). World Bank Policy Research Working Paper, (7592).*
- Lim, R. (2021). The Adoption of a Harmonized Tax System and Tax Policy for ASEAN Tax Administration.
- Maruthi, M. V. (2020). A Comprehensive Analysis of Goods and Services Tax (GST) In India. *International Review of Business and Economics*, 4(2), 62.
- Mittra, M. (2017). *Goods and Services Tax (GST): The biggest reform in India's Indirect Tax-boon or bane to India*. College of Legal Studies, UPES Dehradun.
- Mokakale, T. P. (2018). *The impact of VAT on service delivery in Ditsobotla Local Municipality* (Doctoral dissertation, North-West University (South Africa)).
- Mpofu, F. Y. (2021). Review Articles: A Critical Review of the Pitfalls and Guidelines to effectively conducting and reporting reviews. *Technium Soc. Sci. J.*, 18, 550.
- Musimenta, D. (2020). Knowledge requirements, tax complexity, compliance costs, and tax compliance in Uganda. *Cogent Business & Management*, 7(1), 1812220.
- Musseng, A., Hasanuddin, R., & Umar, R. (2023). The Effect of Implementing the Modern Tax Administration System on Taxpayer Compliance of Free Workers at the Makassar Tax Office. *International Journal of Business, Law, and Education*, 4(2), 393-401.

- Mutagwaba, W., Tindyebwa, J. B., Makanta, V., Kaballega, D., & Maeda, G. (2018). Artisanal and small-scale mining in Tanzania—Evidence to inform an ‘action dialogue.’ *International Institute for Environment and Development, London*.
- Nayar, B. R. (2011). Globalization, the state, and India's halting march to common market: The political economy of tax reform under federalism. *India Review*, 10(3), 201–245.
- Nayyar, A., & Singh, I. (2018). A comprehensive analysis of Goods and Services Tax (GST) in India. *Indian Journal of Finance*, 12(2), 57–71.
- Nayyar, A., & Singh, I. (2018). A comprehensive analysis of Goods and Services Tax (GST) in India. *Indian Journal of Finance*, 12(2), 57–71.
- OECD. (2009). "Improving Taxpayer Compliance: Strategies and Practices." OECD Tax Policy Studies, No. 16.
- Panda, A. K. (2022). GST Rates Restructuring Implications of Revenue in Indian Economy Hypothetical Analysis.
- Pardo, T. A., Gil-Garcia, J. R., & Luna-Reyes, L. F. (2010). Collaborative governance and cross-boundary information sharing: envisioning a networked and IT-enabled public administration. *The future of public administration around the world: The Minnowbrook perspective*, 129-39.
- Pistone, P. (2014). Coordinating the action of regional and global players during the shift from bilateralism to multilateralism in international tax law. *World Tax J.*, 3.
- Plamondon, B. (2017). *The Shawinigan fox: How Jean Chrétien defied the elites and reshaped Canada*. eBookIt.com.
- Rao, M. G. (2022). *Evolving issues and future directions in GST reform in India*. Madras School of Economics.
- Robertson, D. D. (2016). Canadian Sales Tax Reform. *Tax Executive*, pp. 68, 21.
- Saragih, A. H., Reyhani, Q., Setyowati, M. S., & Hendrawan, A. (2023). The potential of an artificial intelligence (AI) application for the tax administration system's modernization: the case of Indonesia. *Artificial Intelligence and Law*, 31(3), 491-514.

- Sebele-Mpofu, F. Y. (2020). Saturation controversy in qualitative research: Complexities and underlying assumptions. A literature review. *Cogent Social Sciences*, 6(1), 1838706.
- Shah, A. (2021). Indian Health Policy in Light of COVID-19: The Puzzle of State Capacity and Institutional Design. In *India Policy Forum* (Vol. 17, No. 1, pp. 31–75). National Council of Applied Economic Research.
- Sharma, C. K. (2022). GST Reforms and Federalism in India: Understanding the Role of Critical Junctures, Veto Players, Constitutional Structures and the Judicial Safeguards of Federalism.
- Smart, M. (2012). Departures from Neutrality in Canada's Goods and Services Tax. *University of Calgary SPP Research Papers*, 5(5).
- Svetlozarova Nikolova, B. (2023). Modernization of Approaches in Tax Control. In *Tax Audit and Taxation in the Paradigm of Sustainable Development: The Impact on Economic, Social and Environmental Development* (pp. 181-199). Cham: Springer Nature Switzerland.
- Taddesse, S. (2023). *Taxation for Sustained Prosperity: Collaborative Tax Policy Making & Administration*. Sam Tad.
- Tax Institute. (2022). Reshaping the GST for the future. *Taxation in Australia*, 57(3), 144-154.
- Teik, O. C., Rahim, H. A., & Rajandran, K. (2023). Polarised Discourse of Complaint Management: Ideological Construction of the GST in Malaysian Online News Articles. *GEMA Online Journal of Language Studies*, 23(3).
- Tilley, P. (2021). 2000: A new tax system. *Tax and Transfer Policy Institute-working paper*, p. 14.
- Tranfield, D., Denyer, D., & Smart, P. (2003). Towards a methodology for developing evidence-informed management knowledge by means of systematic review. *British Journal of Management*, 14, 207–222. <https://doi.org/10.1111/1467-8551.00375>.
- Tran-Nam, B. (2019). The Goods and Services Tax (GST): The public value of a contested reform. *Successful Public Policy*, p. 235.
- Tyce, M. (2020). ‘KRA has the capacity, but it is kept on a tight leash’: The politics of tax administration and policy in Kenya.

- Verma, S., & Singh, S. (2019). Goods and Services Tax: Is it in accordance with the Federal Structure or Unitary Feature of the Constitution?
- Webster, J., & Watson, R. T. (2002). Analyzing the past to prepare for the future: Writing a literature review. *MIS quarterly*, xiii-xxiii.
- Williams, C. (2020). An institutional theory of tax non-compliance in Bulgaria: A tax morale approach. *Economic Alternatives*, 1, 33-49.
- Zaynalov, D. R., & Ahrorov, Z. O. (2019). Modernization of the Tax Science: Methodology and New Paradigms. *International Journal of Multidisciplinary and Current Research*, 7(03), 305–312. <https://doi.org/10.14741/ijmcr/v.7.3.11>
- James, S. (2015). Taxation and the contribution of behavioral economics. In *Handbook of Contemporary Behavioral Economics* (pp. 611-623). Routledge.
- Tanzi, V. (2013). Complexity in taxation: origin and consequences. *Marcos Diniz De Santi, E, Georges Christopoulos, B, Leib Zugman, D & Silva Bastos, F (eds), Transparência Fiscal e Desenvolvimento: Homenagem ao Professor Isaias Coelho, Editora FISCOSoft, Sao Paulo*, 199-236.
- Ohemeng, F. L., & Owusu, F. Y. (2015). Implementing a revenue authority model of tax administration in Ghana: An organizational learning perspective. *The American Review of Public Administration*, 45(3), 343-364.
- Katsamunska, P. (2016). The concept of governance and public governance theories. *Economic alternatives*, 2(2), 133-141.