THE INCOME-TAX RENAISSANCE: EMBRACING TECHNOLOGY FOR WIDENING INCOME-TAX BASE

Introduction

In the relentless march toward the future, where bits and bytes reign supreme, digitalization has emerged not merely as a technological phenomenon but as a transformative force that touches every facet of our lives. Notably, this pervasive digitalization, which once was considered a novelty, through the digitalization of taxation has now firmly entrenched itself in our modern landscape. The impact of digitalization, particularly in the aftermath of the COVID-19 pandemic, prompted a shift in our perspective, underscoring the importance of remote and contactless transactions. However, amidst the burgeoning market growth, a compelling demand emerged for increased regulation, heightening the concern for accountability and curtailing undesirable actions, leading to a substantial digital transformation through the advancement of electronic e-filing, implementation of Audit Trails, the establishment of the Integrated Taxpayer Data Management Systems, Compliance Management Centralized Processing Centres, and so forth. Nevertheless, despite the proactive measures from the department, the persisting challenges remain as resilient as ever.

As the digital market undergoes relentless evolution, uncertainty prevails. People often wonder if governments will impose taxes on every facet of this digital realm, even though that might not be the reality, which, in some way or another, has led individuals to attempt to evade tax liabilities. Just as Kautilya stressed in the *Arthashastra* and Adam Smith emphasized in the *Wealth of Nations*, the principle that *"every tax should be designed to extract from the public as little as possible while still fulfilling the needs of the state treasury,"*[1] This perspective finds resonance in the contemporary mindset of citizens. Nowadays, individuals often perceive the state as being at odds with their financial well-being, leading to a belief that the government is against their income. However, this perception may not always align with reality.

[1] Smith A, 'Chapter II: On the Sources of the General or Public Revenue of the Society', *Book V: On the Revenue of the Sovereign or Commonwealth, Wealth of Nations*

Thus, this article will explore the prospects of the significant hurdles accompanying the rise of technology and how that can be effectively incorporate to widen the current tax-base. In furtherance, discussing the proactive steps taken by governmental authorities and probing into the reasons behind the lingering public hesitancy. Lastly, will explore the strategic manoeuvres governments can employ to encourage broader acceptance while shedding light on the role of digitalization in expanding the government's income-tax base.

Relevance of Digitalization

In the dynamic world of finance, the digitization of income-tax procedures has moved from being a luxury to an absolute necessity. This transition from traditional, paper-heavy tax processes to digital methods carries immense importance, impacting not only tax authorities but also to all taxpayers and business entities. The Indian government's vision for a trillion-dollar digital economy by 2025 underscores the urgency of modernising our tax infrastructure.[2] This ambitious target, however, necessitates a critical aspect: using technology wisely to widen the tax-base.

History of Digitalization of Income-tax

Over the span of more than two decades, persistent efforts have been dedicated to addressing a critical issue: tax evasion. The income-tax department has led the charge, spearheading innovative initiatives aimed at both combating tax evasion and ushering in a modern era of tax filing procedures. It was around the year of 2002 when the taxation landscape in India marked the initiation of a transition toward computerised income-tax databases. The launch of the official website, *www.incometaxindia.gov.in*, laid the groundwork for what was to come—a bridge between the analogue past and the digital future. Building on this digital groundwork, 2006 saw the emergence of *electronic (e-filing) of tax returns*. This innovation was not merely about reducing paperwork; instead, it targeted more upon the taxpayers submitting their returns from the convenience of their homes, setting the stage for a more accessible tax ecosystem. However, recognizing the need for more precise and comprehensive data collection, the tax department took a significant step forward in 2007 with the launch of the *Integrated Taxpayer Data Management System (ITDMS)*, a strategic move to equip tax authorities with a panoramic 360-degree view of

[2] Livemint, 'India's Digital Sector Valuations Will Cross $1 Trillion by 2025, Says PM Modi' (*Mint*, 22 June 2022) <https://www.livemint.com/news/india/indias-digital-sector-valuations-will-cross-1-trillion-by-2025-says-pm-modi-11655906031139.html> accessed 6 October 2023

taxpayers to conduct more precise monitoring while fostering an environment of transparency and accountability.

Recognizing the need for efficiency, the Centralised Processing Centre (CPC) was established in 2009 to handle the rising volume of tax returns efficiently, harmonising tax administration and streamlining processes. However, in 2011, India's vision extended beyond its borders as it turned its gaze to the global stage. The nation fortified its commitment to international tax matters by bolstering the Foreign Tax Division, equipping it to effectively manage the complexities of cross-border taxation and international tax cooperation.

In pursuit of fairness and efficiency, the government introduced TRACES (TDS Reconciliation Analysis and Correction Enabling System) in 2012 and RAPID (Revenue, Accountability, Probity, Information and Digitisation) Model in 2014 which should be the aim of the Income-tax Departments, further enhancing the tax infrastructure. These initiatives, like the instruments in an orchestra, played their part in simplifying processes and ensuring a level-playing field for all taxpayers. But the symphony did not end there. India's commitment to tax transparency and international cooperation took centre stage with initiatives like Project Insight, Tax Information Exchange agreements, the Multilateral Convention on Administrative Assistance in Tax Matters, and various bilateral tax conventions.

Benefits of Technology Driven Tax-Base Expansion

The growing prevalence of digitalization highlights its increasing importance, opening another dimension to utilise its potential. More particularly, its potential can be harnessed in innovative ways to further expand the taxpayer base in the country and develop efficient tax collection strategies that reduce the burden on others. Digitalization offers the potential to enhance the government's tax enforcement capabilities significantly. Specifically, it enables the government to efficiently handle a broader range of information related to taxpayers' economic activities, encompassing earnings, capital gains, consumption patterns, gifts, and inheritances. By amalgamating data from diverse sources, it becomes more feasible to pinpoint individuals that are attempting to evade their tax obligations. As a result, if digitalization effectively bolsters enforcement technology, it can lead to a reduction in tax evasion. Consequently, government revenue can increase while maintaining the same statutory tax framework. Nevertheless, an essential question remains: *What is the efficacy of the data available to the enforcement authorities?*

In 1971, James Mirrlees, a Nobel laureate, penned an influential piece of work that sheds light on a critical dilemma faced by policymakers: the balance between fairness and efficiency in taxation. Mirrlees' study, which focused on the taxation of labour income, unveiled an essential insight into how information constraints shape our ability to strike this delicate balance.[3] His model revolves around the concept of nonlinear taxation of labour income. In simpler terms, it is about designing tax systems where the tax rate varies as your income changes. However, the real challenge lies in determining how these tax rates should fluctuate to serve both equity and efficiency best. When tax rates are talked about, it is not just about what is written in the rulebooks; it is also about all the other factors that come into play. This includes government transfers, tax breaks, deductions, and various benefits to redistribute income.

Narrowing down to the Indian context, there are various authorities responsible for keeping tabs on the income that employers provide to their workers. However, achieving a fool-proof verification of these earnings is far from simple. This challenge is even more pronounced for self-employed individuals, where there is often no third-party reporting mechanisms in place. This is where the digitization of our economy comes into play. With more and more transactions happening digitally, the government has access to a wealth of information about what people spend their money on as there is a record of their monetary transactions via online trail. In a possible future scenario, all transactions might become electronic, and physical cash could become a thing of the past, as suggested by economist Kenneth Rogoff in 2016.[4] While it is difficult to observe how much people consume individually, the digital trail they leave behind when making purchases provides a valuable link to understanding their financial lives. By carefully tracking these consumption transactions, dots between what people spend and where their income is coming from can be connected – be it labour income, income from investments, or their overall wealth. This is

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[3] Mirrlees JA, 'James A. Mirrlees - Nobel Lecture - Nobelprize.Org' (Information and Incentives: The Economics of Carrots and Sticks, 9 December 1996) <https://www.nobelprize.org/uploads/2018/06/mirrlees-lecture.pdf>

[4] Rogoff K, Dealing with Monetary Paralysis at the Zero Bound (The Journal of Economic Perspectives, Vol. 31, No. 3, pp. 47-66) <https://www.jstor.org/stable/44321279>

another means via which the solution to widening the income-tax base would also be now on our fingertips, for analysing and enforcing accountability among masses.

Further, even when the optimal income-taxation model may not be directly applicable to developing nations, the prevalence of consumption taxes for revenue generation and income redistribution, combined with the advent of digitalization, offers an opportunity for governments to introduce a progressive consumption tax instead of proportional, even when income is challenging to verify and remains untaxed. This progressive consumption tax approach enables a more effective redistribution of payment at the same consumption tax rates or the establishment of lower consumption tax rates while achieving the same level of income redistribution, thus moving away from the archaic taxation methods and consequently enhancing the redistributive capabilities of the commodity tax system.

Such digitalization drives would also enable governments to establish and interconnect databases containing information on wealth and capital income. These data encompass savings, publicly traded assets, or the assets held through digital investments or closely held investments, home ownership, pensions, and bequests/estates. This digitalization capability opens the door to implementing a dual-income-tax system, where "comprehensive" capital income and wealth can be systematically linked and subject to taxation under a unified framework known as a "synthetic capital income-tax." Under this system, all forms of capital income would be aggregated and subjected to taxation according to a single, ideally flat, tax rate applied to capital income exceeding a specified tax-free exemption threshold. This tax reform is highly desirable as it mitigates opportunities for tax arbitrage and enhances the efficiency and fairness of existing personal income-tax systems.

While recognizing that a one-size-fits-all approach may not be suitable in all circumstances, employing a uniform tax rate for all capital income sources eliminates arbitrage possibilities across various capital income streams over time and among individuals or legal entities, which may eliminate distortions in capital and risk allocation and form an optimal balance between taxes on labour and capital income.

Adapting to Shifting Tax Dynamics: Contemporary Challenges

It is imperative to realise the significance of adjusting tax regulations to accommodate the developments in the global landscape. Recent times have witnessed significant shifts that demand a re-evaluation of tax requirements and parameters. Emerging challenges, including but not limited to the rise of digital currencies, cross-border transactions, and the operations of tech giants, necessitate a deep understanding of how technology plays a pivotal role in expanding the income-tax base. This section deals with emerging challenges, exploring how countries must effectively address them to prevent tax evasion by some while avoiding an undue burden on others.

Deciphering Digital Currency Predicament

With the surge in the technological landscape, individuals and businesses increasingly earn income online. Yet, this income often lacks the same level of traceability and record-keeping as traditional, salaried employment. Furthermore, the income generated from the global digital economy frequently escapes the purview of effective regulation and taxation, thereby posing a pressing issue for revenue authorities worldwide. This evolving landscape of online income acquisition remains largely elusive to the understanding of both taxpayers and collectors.

For instance, the emergence of digital currencies has facilitated a means for individuals to circumvent taxation, particularly in scenarios involving third-party investors who have no direct accountability to the Indian government. To illustrate, consider a situation where an Indian citizen seeks to acquire digital currency through a buyer located in a foreign jurisdiction where cryptocurrency regulations are lax or non-existent. In such cases, the Indian citizen may request the foreign buyer to procure digital currency on their behalf, with the compensation to the buyer also occurring in cryptocurrency, often through mechanisms like gifting and similar methods.

Complicating matters further are the vulnerabilities in the current system, where individuals who are aware that the government imposes a lower tax rate on long-term capital gains may opt for this route instead of the prevailing 30% tax rate generally. The attraction lies in the potential to achieve substantial tax savings by categorising cryptocurrency holdings as long-term assets, typically applicable to assets held for over two years. This categorization generally incurs a lower capital gains tax rate when compared to the higher tax rate imposed on short-term cryptocurrency gains.

Consequently, the allure of such tax incentives encourages individuals to explore and exploit the taxation loopholes surrounding cryptocurrencies.

Escaping Double Taxation

Furthermore, the challenge of traceability becomes significantly pronounced when considering the substantial revenues generated by behemoth companies like FAGAM (Facebook, Apple, Google, Amazon and Microsoft) through advertising, which constitute significant financial streams. These tech giants, despite amassing substantial income, have often been criticised for their relatively minimal tax contributions. The availability of digitised data holds the potential to empower Big Data companies and AI (Artificial Intelligence) driven analytics tools to scrutinise the taxation practices of such entities and propose strategies for enhancing their tax liabilities.

For instance, in 2018, Google's total revenue in India exceeded Rs 10,000 crores, while Facebook accumulated a total income of Rs 521 crores. However, the combined tax payment by Facebook and Google to the Government of India amounted to a mere 200 crores.[5] Despite efforts to address these issues through amendments like the nexus-based approach and measures against double taxation, significant gaps persist within the system. A particularly concerning loophole arises when companies categorise their earnings as investments rather than income, thereby potentially evading taxes at a much higher magnitude than initially perceived.

Moreover, the landscape of income generation has evolved, with platforms like Instagram (acquired by Meta) and Twitter (now, X) becoming prominent channels for revenue accrual. These platforms have introduced features such as the blue checkmark on X and verified badges on Instagram, denoting an individual's brand or market value. The role of social media in our lives has assumed unparalleled significance, serving as an indispensable tool for communication, entertainment, and shopping. The global adoption of social media has experienced exponential growth in the past decade, with an already substantial portion of the world's population actively engaged, and is poised for further expansion. Consequently, influencer marketing has emerged as a pivotal facet of a brand's comprehensive marketing strategy, and now recognized as a highly

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[5] 'Google, Facebook Made Rs 10,000 Crore; Paid Rs 200 Crore as Tax in India' (*Business Standard*, 27 June 2019) <https://www.business-standard.com/article/companies/google-facebook-made-rs-10-000-crore-paid-rs-200-crore-as-tax-in-india-119062700393_1.html>

effective means to connect with specific target audiences and bolster brand awareness. Social media influencers have discovered potentially substantial sources of income, ranging from sponsorships to advertising revenue and other similar sources.

Sponsorship Conundrum and Tax Evasion

While the Central Board of Direct Taxes (CBDT) announced that a TDS of 10% would be levied on freebies and perks worth over Rs 20,000 received by them from brands for promotions, as per section 194R of the Income-tax Act[6] and increased scrutiny on their earnings, however, the issue of traceability remains a persistent concern. This is due to several reasons. *Firstly,* complex revenue streams where influencers often derive income from various sources, including sponsored content, affiliate marketing, merchandise sales, and more. The diversity and complexity of these revenue streams make it challenging to assess their earnings accurately. *Secondly,* the global nature of social media transcends national borders, and influencers have followers and revenue sources from around the world. This global reach complicates the task of tracking income and ensuring compliance with tax regulations, mainly when transactions occur in digital currencies or across multiple jurisdictions, further contemplating the issue of double taxation. *Thirdly,* digital payment methods, where many influencer transactions and earnings occur through digital payment platforms, can offer a degree of anonymity and make it more difficult to trace financial flows accurately. *Fourthly,* the change of algorithms and platforms, where the Influencers often operate across multiple social media platforms simultaneously and landscape of social media is constantly evolving, with new algorithm changes impacting how influencers earn income. This rapid evolution further complexed the task of tax authorities' ability to stay up-to-date and adapt their tracing methods accordingly. *Lastly,* and most significant, the Opaque Contracts, where the influencer contracts and agreements with brands may not always be transparent, with some income arrangements intentionally designed to obscure the true financial terms, which further hinders tax authorities' efforts to assess accurate tax liabilities.

Deceptive Tax-Avoiding Corporate Practices

[6] 'Freebies, Sponsored Trips to Influencers Will Be Subject to 10% TDS from July 1' (*Times of India*, 21 June 2022) <https://timesofindia.indiatimes.com/business/india-business/explained-freebies-sponsored-trips-to-influencers-will-be-subject-to-10-tds-from-july-1/articleshow/92356973.cms>

Another significant issue in the modern world is the phenomenon of companies deliberately portraying themselves as operating at a loss to evade taxes, a practice employed to legally reduce their tax liabilities by reporting diminished profits or even losses on their financial statements. This manoeuvre relies on various accounting techniques and the exploitation of tax regulation loopholes. In the Indian context, this strategy has gained notoriety, particularly in the backdrop of the increasing digitalization of tax systems and financial reporting. To shed light on this issue, consider the case of Company XYZ, a prominent e-commerce entity operating in India. As online shopping and digital payment platforms have witnessed explosive growth, Company XYZ has enjoyed substantial revenue expansion. However, in its bid to minimise its tax obligations within the bounds of legality, the company resorts to the following tactics. *Firstly,* through transfer pricing manipulation or tax havens, where Company XYZ establishes subsidiary companies or entities in jurisdictions or countries known for their favourable corporate tax rates. It then engages in the manipulation of transfer prices for goods or services exchanged between these entities. For instance, the company might artificially inflate the costs of goods sold to its Indian entity while understating revenue generated within India. This effectively diminishes the taxable profit in India while shifting it to jurisdictions with lower tax burdens. *Secondly,* income shifting, where the company can shift income from high-tax jurisdictions to low-tax jurisdictions by manipulating where they record their revenue, expenses, or intellectual property ownership through manipulation of intangible assets to minimise taxable income in regions with higher tax rates. *Thirdly,* hybrid mismatches, where companies exploit differences in tax classifications between countries, such as treating an entity as a corporation in one jurisdiction and as a partnership in another. This mismatch can lead to double deductions or no taxation at all in some instances. *Lastly,* the Thin Capitalization, where companies manipulate their capital structure by relying heavily on debt financing rather than equity. This allows them to deduct interest expenses, reducing their taxable income. They might set up internal loans with subsidiaries in low-tax jurisdictions, leading to higher interest payments and lower profits in high-tax countries.

Taxing the Future

Another global challenge revolves around the taxation of income generated through AI. Determining how to levy taxes on such income and identifying the entity with the authority or right to claim patents or copyrights for products created using AI remains a complex issue. A recent case highlighted this dilemma involving a copyright infringement dispute over a singer's voice employed by an AI to compose an entire song, where a human user made the music and lyrics. The expert's reasoning asserts that the creation did not qualify for copyright protection. This argument is hinged on the that extending copyright protection to AI-generated content would undermine the primary purpose of using AI in the first place. Consequently, copyright statutes employ the term "author," consistently interpreted as a human with a requisite degree of human authorship. For instance, if a human selects or creatively arranges AI-generated materials, such efforts can still qualify for copyright protection. However, the challenge arises regarding taxation, where the existing tax system struggles to adapt to this emerging landscape.

For instance, AI systems are increasingly becoming capable of automating the tasks traditionally performed by a radiologists, doctors and other professionals. However, juxtaposing this with employment of humans, an intriguing dimension emerges. What sets AI apart in this scenario are the associated tax benefits that do not extend to human professionals. By strategically categorizing the AI investment as an automation endeavour, there is a potential for significant cost reduction as these kinds of machinery would be taxable as a one-time tax liability, in contrast employed professionals are subjected to monthly tax deposits as the employers would profit from their earnings. This in all attracts the important question of what new tax avenues would AI systems and machinery bring?

Nevertheless, it is worth noting that while wages paid to human employees are also tax-deductible, the timing of these deductions differs significantly between AI and human labour. This timing discrepancy has a profound impact on a business's tax burden, making the tax implications of AI adoption a topic of paramount importance while navigating the future of automation with other economic aspects.

Technology as a Solution to Widening Tax Base

In the era of digitalization, technology serves a crucial role in addressing numerous challenges that hinder the expansion of the income-tax base. This marks one of the advantageous aspects of contemporary modernity: the ability to harness technology to effectively mitigate the issues associated with taxation.

One significant challenge lies in the scarcity of accessible data to determine the tax obligations of various parties. An effective solution to address this challenge is the pre-population method, as advocated by the OECD Base Erosion and Profit Shifting Framework. This method, a longstanding and integral aspect of digitalization, involves extracting taxpayer information from diverse sources and automatically populating tax returns with relevant figures, thereby alleviating the burden on taxpayers to manually provide this information. These data sources encompass banks, unions, mutual funds and more. This has been furthered by the implementation of e-invoicing systems and e-assessments, which mandate the reporting of every taxable transaction in real-time, as has been implemented in Colombia, Hungary, Brazil and Mexico. This approach extends beyond individuals to encompass businesses, requiring them to generate and transmit electronic invoices for all financial activities. Consequently, this system captures not only the information supplied by the parties but also records every transaction they engage in. Similarly in countries like Ireland and Australia, another effective method of digitalization involves establishing a connection between payroll systems and income taxes. This integration enables tax authorities to accurately track taxpayers' earnings. Through this digital approach, it becomes possible to determine who is fulfilling their tax obligations and who is not. Consequently, tax authorities can identify individuals or entities who are missing from the tax rolls, enabling them to implement either actual or presumptive taxes on these previously unidentified taxpayers.

To make this concept more specific to India, a real-time integration of the Unified Payments Interface (UPI) with income-tax accounts can be implemented. This integration would enable the instantaneous reporting of all financial activities undertaken by Indian citizens, ensuring that their income and transactions are consistently and promptly recorded. By embracing such mechanisms, tax authorities can substantially narrow the compliance gap in tax filings. As this data can be used to identify potential taxpayers who were previously operating in the informal economy or evading taxes or paying taxes lesser than what is earned.

Another avenue to significantly expand the tax-base involves engaging the younger generation who are newly joining the working population. To capture their interest and participation, leveraging AI and digital technologies, which are integral to their daily lives, can be instrumental in streamlining the tax filing process. This approach could encompass expediting online reimbursement of taxes and introducing other digital tax schemes. This has already been implemented in countries like Estonia where prompt reimbursement of overpaid income-tax is facilitated for those who file their tax returns electronically. These digital systems could be simplified even by making sure that there are bots and other helpful AI technologies that aid people in filing their taxes. This, combined with the aforementioned data-reporting systems, not only simplifies the process but also fosters greater voluntary compliance among the general populace. Furthermore, these systems can be extended to analyse individuals' digital financial footprint to offer tax advice and strategies for more efficient financial management. Incentives could be provided to those who accurately report their income, ranging from tax credits to reduced audit risk. It is important to note that the more people who contribute to the tax-base, the lighter the burden becomes on each taxpayer.

Additionally, implementing these systems would reduce the compliance costs associated with hiring income-tax consultants, as the digital platforms established by tax authorities can fulfil the same functions. These systems can also effectively communicate information about standard deductions and other tax benefits, bridging the information gap between taxpayers and their more affluent counterparts. This also goes for information gap between different segments of the population, including those who may face financial challenges such as individuals from low-income backgrounds, women, disabled etc. These groups are often comparatively less financially literate which hinders their ability to navigate the tax system effectively. Digitalizing taxation thus would not only benefit the entire population but also empower these individuals to conveniently file taxes eliminating the need for them to depend on others to file their taxes, promoting financial independence and inclusivity, thus ensuring everyone has the opportunity to participate in the tax system effectively.

Moreover, implementing changes in tax schemes, standard deductions, tax benefits, and reimbursement policies can be efficiently communicated to taxpayers through digital notifications. These systems can leverage data analytics to send timely reminders for advance tax payments, detect discrepancies in income-tax returns, and identify potentially high-risk financial transactions. They can continuously monitor and track financial transactions, providing real-time updates to tax authorities on individuals' financial earnings. These enhancements or new additions to the tax system would facilitate quicker dissemination of information about changes in the tax regime to the public. This, in turn, would encourage more people to opt for online tax filing and compliance. Such a shift is particularly valuable in times of economic challenges, like the recent pandemic-induced lockdowns, where traditional tax filing could be disrupted. However, with digital systems in place, tax-related processes can continue without any interruptions. Additionally, these digital systems can accommodate individuals who work from multiple locations, whether temporarily or permanently, eliminating the hindrance of physical inaccessibility to tax authorities or filing centres. Thus, embracing digital solutions in taxation not only streamlines communication and compliance but also ensures adaptability to changing economic circumstances.

In recent times, there has been a proliferation of new professions and income sources, including gig employment and platform work, which have blurred the lines between traditional employment and self-employment. At the same time, the international landscape has witnessed the emergence of cryptocurrencies and blockchain technology, leading to unprecedented levels of financial gains. However, the unique nature of cryptocurrencies, not being considered legal tender, has created a situation of untaxed profits, evading the purview of capital gains and personal income taxes. To effectively adapt to these evolving trends and complexities in taxation, it is essential for tax regimes to keep pace with such changes. One way to achieve this is by harnessing cutting-edge platforms such as data analytics and big data companies, which is planned to be introduced in Japan over the next 10 years. These platforms not only facilitate the analysis of massive datasets but also introduce new players focused on safeguarding critical and extensive data, expanding the scope to include data security companies. This transformation can generate a plethora of employment opportunities in the formal sector, motivating individuals to transition from informal work arrangements to more structured employment. These individuals can be involved in various aspects, including data collection, ensuring accurate data analysis, data security, and monitoring data triggers that might signal the need for tax audits to address non-compliance issues. They can also manage diagnostic tools that would form to be the backbone of the country's digital tax system, such as implementing blockchains for auditing purposes to enhance transparency and accuracy in financial records. This holistic approach not only addresses taxation challenges but also fosters a dynamic job market and data security infrastructure.

Lastly, a digitalised taxation system can significantly enhance a country's alignment with international tax standards. It empowers tax authorities to exchange financial information with other nations through international agreements like the Common Reporting Standard (CRS). This would not only aid in detecting offshore tax evasion but also ensures that taxpayers report their global income as is the case with the Tech Giants, also known as FAGAM (Facebook, Apple, Google, Amazon, Microsoft). These tech giants minimise their tax liabilities in high-tax jurisdictions by transferring their tax obligations to low-tax regions or employing strategies like double taxation, ultimately resulting in minimal tax payments. The proliferation of truly international corporations has led to a prevalent practice of profit shifting among different countries, eroding their tax-bases. This practice extends to non-Indian entities profiting from the sale of goods and services in India or from individuals making purchases via Indian IP addresses. Many of these businesses benefit from the relaxation of Permanent Establishment rules, as they do not operate from a specific physical location.

While taxing individuals within the same country may be relatively straightforward, India is confronted with the challenge of addressing offshore black money estimated at a staggering value of more than $2 trillion, although there is no official estimate for the same.[7] Therefore, having digital systems would make the earning and transactional data available for evidentiary purposes, expediting prosecution against non-compliance by establishing a digital repository of records and transfers. Such data repositories not only combat domestic and international tax evasion but also would facilitate the management of cross-border transactions, cryptocurrencies, and emerging data-driven business models. Such data banks would not only help in dealing with tax evasion (home and abroad) but also with cross border transactions, cryptocurrencies and emerging data business models. In cases where disputes arise between countries over their entitlement to tax-specific incomes, treaties and agreements can be established to effectively determine each country's right to tax their share of income. Much like Russia's plan to introduce CbC (Country by Country) reporting which requires MNCs to report annually to each tax jurisdiction they operate in. This approach simplifies compliance and enhances the effectiveness of prosecuting tax evasion,

[7] 'Nobody Has Been Jailed in India for Tax Evasion' *The Economic Times* (19 November 2015) <https://economictimes.indiatimes.com/news/economy/policy/nobody-has-been-jailed-in-india-for-tax-evasion/articleshow/49841252.cms?utm_source=contentofinterest&utm_medium=text&utm_campaign=cppst>

considering India has had a bad record in incarcerations for tax evasion. Implementing such systems not only empowers governments with additional resources to bolster public spending but also elevates the country's standing on various indices such as the Ease of Doing Business, as the taxation system becomes more accessible for both Indian and non-Indian entities.

Hence, the digitalization approach goes beyond mere individual tax savings. It not only encourages individuals to fulfil their tax obligations but also has the potential to foster a society that not only understands the significance of taxation but actively participates in it. This could lead to a society where tax evasion and non-compliance decline, resulting in a more equitable distribution of the tax burden among individuals. Consequently, it paves the way for a taxation system to function seamlessly, resembling the efficient processes of the Goods and Services Tax (GST).

Working Around Challenges to Digitalization

While technology plays an important role in widening the income-tax base, it is to see that all may not be good with the implementation of the same. There are certain caveats that need to be kept in mind and hopefully, worked around to ensure that use of technology does not lead to newer challenges in mitigating the older challenges.

One of the most critical and recently acknowledged concerns revolves around security of collected data. The increasing prevalence of data breaches, exemplified by various hacker attacks, poses a significant risk not only to individuals but also to entire countries. As recently illustrated by the Chinese data leak, where personal information of potentially up to one billion Chinese citizens was left exposed, unsecured, and publicly accessible for over a year until it came to light as someone attempted to sell it.[8] India, too, in the recent past, experienced data breaches with incidents like the hacking of the Kudankulam Nuclear Power Plant and the Indian Space Research Organization (ISRO).[9] Therefore, to digitalize tax records and store sensitive personal information for an entire country, it becomes paramount to prioritise the security of this data to prevent breaches that could

[8] Xiong Y, Ritchie H and Gan N, 'Nearly One Billion People in China Had Their Personal Data Leaked, and It's Been Online for More than a Year' *https://edition.cnn.com/2022/07/05/china/china-billion-people-data-leak-intl-hnk/index.html* (5 July 2022) <https://edition.cnn.com/2022/07/05/china/china-billion-people-data-leak-intl-hnk/index.html>

[9] '8 Biggest Data Leaks of 2019 That Hit Indian Users Hard' (17 December 2019) <https://economictimes.indiatimes.com/industry/tech/8-biggest-data-leaks-of-2019-that-hit-indian-users-hard/kudankulam-nuclear-power-plant-kknpp-isro-hacked/slideshow/72836962.cms?from=mdr>

jeopardise sensitive personal data. Thus, before implementing a formal system for the collection and storage of extensive personal financial data, it is imperative to establish robust mechanisms ensuring data privacy and security. As effective tax enforcement should not become the basis for compromising the confidentiality of taxpayer information. Another challenge arising from digitalization in this context is the need to address malicious intent aimed at unlawful financial gains, particularly through identity theft. It is crucial to implement stringent measures for verifying the identities of individuals attempting to access digital records to thwart any attempts by wrongdoers seeking to exploit this information for illicit purposes.

Tax authorities must also ensure that digitalization of taxation does not increase the divide between privileged and underprivileged sections of society. It is important to recognize that not everyone has equal access to technology, and therefore, initiatives and welfare programs should be implemented to integrate marginalised groups into the mainstream digital tax system. This disparity is evident in the treatment of Small and Medium-sized Enterprises (SMEs), which may struggle with the compliance burden, especially if they lack the resources to implement advanced accounting and reporting systems. In contrast, larger corporations may have the means to navigate this burden through legal avenues, utilising intricate structures to shift profits to low-tax jurisdictions and thereby avoiding taxes through cross-border channels and decentralised technologies. Moreover, the challenge of proving tax evasion becomes more complex as large companies would become more proficient and have better resources to handle virtual assets and online transactions, leaving a less conspicuous audit trail compared to traditional financial activities. Tax authorities need to enhance their digital capabilities, as tax evaders and avoiders may adapt their strategies to a more digitalized environment, employing technologies such as AI, automation in financial transactions and record-keeping. This may lead to a game of cat and mouse with intricate tax implications, necessitating regular updates to their evasion detection mechanisms.

Further, on a more international scale, it might be necessary to establish a comprehensive regulatory framework, especially in light of the emergence of newer digital currencies such as cryptocurrency and decentralised finance (DeFi). The challenge lies in determining how these digital assets should be integrated into the existing tax structure, given their international nature and absence of specific geographical location for taxation or legal recognition. This situation can potentially lead to disputes concerning which jurisdiction has the right to impose taxes on these transactions. This concern extends not only to newer digital currencies but also to emerging professions such as content creators, internet-based businesses, and social media influencers. It is essential to avoid burdening these entities with excessive taxation, which could discourage their engagement with various countries if they are subjected to taxation in every jurisdiction they operate in. Therefore, a delicate balance needs to be struck between the tax obligations of these companies across different jurisdictions and their right to participate in economic activities, effectively and profitably.

In order to promote the prosperity of both nations and individuals, it is imperative to consider these caveats, and anticipate the possibility of more emerging in the future. It is vital to harness technology as a boon for our existence rather than allowing it to become a bane.

CONCLUSION

Adapting to the ever-evolving technological landscape is not merely advisable, but essential. Integrating technology into taxation systems offers a myriad of advantages, particularly in encouraging newcomers to the tax-paying fold engage in tax compliance. This shift not only eases the burden on existing taxpayers, serves the interests of governments, but also ensures that newcomers are not saddled with hefty taxes. Transitioning away from conventional challenges, a digitalized tax framework excels in accommodating the continuously changing landscape of income-generation. This includes digital currency trading, social media platforms, and novel income streams that are yet to materialise. Taxation systems must evolve continually, as they must address not just today's income sources but also anticipate those of tomorrow. Furthermore, digitalization offers benefits beyond streamlining income-tax filing and enhancing accessibility. It empowers governments to maintain comprehensive financial records, employ artificial intelligence for data analysis and audit triggers, and effectively combat tax evasion and avoidance while conserving resources. Therefore, incorporating technology into income-tax systems transcends being a momentary need, rather is a compelling and enduring imperative for the modern tax ecosystem.

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