11 The Role of Government Reform in Improving Voluntary Tax Compliance in the Digital Economy

The Bangladesh Experience

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11.1 Introduction

The rapid growth of the digital economy has placed increased pressure on revenue administrations around the world in their efforts to enhance voluntary tax compliance by meeting taxpayers' obligations (Migai, Jong, and Owens 2018; Organisation for Economic Co-operation and Development [OECD] 2014). This is particularly relevant to developing countries in Asia and the Pacific, where tax agencies are struggling to capture adequate tax information with a conventional tax filing system and inadequate human resources (Gueydi and Abdellatif 2018). The current view is that there is a growing need for a well-functioning tax administrative system, incorporating advanced tax technology that can systematically gather and process taxpayer information, crossmatch, and thereby help both taxpayers and the tax authority meet their tax obligations (KPMG 2018).

The effects of tax system digitalization are significant for the economies in Asia and the Pacific. Digitalization is changing all aspects of taxation, from collection and compliance to the tax base itself (KPMG 2019). For example, in Bangladesh digitalization of the tax system is beginning to have an economic and social impact as the country embraces new and digitalized business models. While digitalization has the potential to drive innovation and thereby transformation, it is also seen as a way to drive welfare-enhancing changes in society. In a developing country, a digitalized tax system can enhance citizen–state relations by improving tax compliance. To date, several countries have adopted e-taxation to promote taxpayer satisfaction. In Romania, for instance, the use of digital public services has increased the level of tax compliance by making taxpayers feel more confident and responsible, which prompts them to comply (Fanea-Ivanovici et al. 2019). Similarly, in Slovenia, a country that ranks above the European Union average in online availability, taxpayer satisfaction with using personal income tax online services is very high because of ease of use and access (Klun and Decman 2006).

As the adoption of digitalization in taxation is relatively new in developing countries in Asia and the Pacific, there is no comprehensive study that examines the role of tax digitalization and automation in enhancing tax compliance. This research aims to fill this gap in the literature by exploring the role of tax digitalization and automation undertaken by the income tax wing of the National Board

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of Revenue (NBR) in Bangladesh in enhancing voluntary tax compliance. To this end, we use an online key informant survey to better understand the relationship between digitalization and automation of the tax system, and improved taxpayer well-being. Aligning with the Government of Bangladesh's Sustainable Development Goals (SDGs) and Vision 2041, the study also explores possible links between digitalization and automation of the tax system in achieving the SDGs. Voluntary tax compliance is a chronic problem in Bangladesh (Sarker 2003; Faridy, Freudenberg, and Sarker 2018), and prior research indicates that it is necessary to understand the key factors that influence such noncompliance (Akhand 2015).

Our study has several practical and policy implications. First, it will contribute to our understanding of the factors influencing various groups of taxpayers in meeting their tax obligations within a growing digital economy. Second, from a tax administration point of view, the study will shed light on the opportunities and challenges in adopting digital technologies to provide tax services and thereby enhance tax compliance in developing countries. Due to the variety of policies and differing abilities to adopt digitalization to enhance tax compliance, the evidence on the current capability of revenue authorities in developing countries is mixed (Carnahan 2015). Consequently, from a policy perspective, the study will provide insights into the role of future reforms in tax policy and administration in the digital economy in the developing countries of Asia and the Pacific. This will help develop a well-functioning revenue system, which is necessary for strong, sustained, and inclusive economic development in the region.

This chapter consists of seven sections. The first section introduces the topic. Section 11.2 presents a literature review examining the need for and role of tax digitalization and transformation to enhance voluntary tax compliance in a developing country. Section 11.3 presents the theoretical framework of the study. Section 11.4 briefly presents the history, trends, and current state of the digitalization of the income tax system in Bangladesh. Section 11.5 presents the methodology used for the study, and section 11.6 presents the results of the study. Section 11.7 discusses the implications for further research, provides some policy options, and concludes.

11.2 Literature Review

A well-functioning revenue administration is central to supporting the effective modernization of a tax system (Kidd 2010). Within the literature, several studies examine the role of a well-functioning tax system in the digital economy. Carnahan (2015) posits that a well-functioning tax system is an important condition for strong, sustained, and inclusive economic development. This is more relevant to developing countries in Asia and the Pacific such as Bangladesh, which is facing a sharp decline in foreign aid while experiencing a high level of public expenditure (Sarker 2015). Increased domestic revenue mobilization in developing countries is crucial to fund public expenditure on the physical, social, and administrative infrastructure that is important to enhance the livelihood of millions of people and achieve the SDGs (Kharas and McArthur 2019). Such infrastructure can also enable enterprises and businesses (small, medium-sized, and large) to start and/or expand, which is important to create jobs and wealth for a nation. An effective tax administration is thus a central element in supporting a strong "citizen–business–state" relationship that underpins effective, accountable, and stable governments. One important way to transform an effective tax system in a modern and dynamic market is to provide easier, cheaper, and faster access to digital technologies that can provide new opportunities to administer taxes, support taxpayers, and encourage their participation (Hodzic 2018). It is also possible to enhance engagement between individual taxpayers and the tax administration by improving trust in each other that can contribute to stronger economic and employment growth outcomes (Carnahan 2015).

Tax scholars posit that technology can play an important role in the current tax landscape to enable both taxpayers and tax administrators to be more accurate and compliant (Juswanto and Simms 2017; Migai, Jong, and Owens 2018; Hodzic 2018). These studies find that tax technology can help the tax department enhance transparency and accountability by streamlining taxation processes, which can result in good governance in domestic revenue mobilization. According to Thomson Reuters (2015), there are seven reasons to transform tax with technology: Accuracy and compliance, process efficiency, global collaboration, transparency, tax system satisfaction, key insights and metrics, and sustainability. This is echoed in an article by Ernst and Young (2017), which also emphasizes the growing importance of the digital wave transforming tax with technology. This trend has become stronger in recent years.

Since the early 2010s, the business case for adopting new tax technologies has gained further momentum. While tax authorities worldwide are introducing new initiatives, including tax codes to deal with these digital business models, it remains unknown how taxpayers, tax officials, and civil society perceive key global and country-specific trends directly impacting tax functions and the future of digital tax. Several studies examine the challenges posed by the spread of the digital economy for domestic revenue mobilization (Juswanto and Simms 2017; Hadzhieva 2016; Hodzic 2018; Victor 2019). Juswanto and Simms (2017) argue that tax authorities in many developing countries in Asia and the Pacific are struggling to adapt to the challenges posed by the digital economy, and must quickly enhance their competence to catch up with the rapid changes in digital economy activities. A recent study by Hadzhieva (2016) on behalf of the European Parliament highlights the direct and indirect tax challenges involved in the digital economy in light of the base erosion and profit shifting project. In particular, the study argues that it is difficult for tax administrations to levy taxes for digital goods that are highly mobile or intangible. In the context of Croatia, Hodzic (2018) highlights the tax administrative challenges of the digital economy. Using a strengths, weaknesses, opportunities, and threats analysis, this study shows that, while tax administrations face some barriers in adapting to digital technologies, these technologies also provide new opportunities to administer taxes, support taxpayers, and encourage their voluntary participation in compliance with tax obligations. On the other hand, Victor (2019) posits that, while digitalization of the economy has increased base erosion and profit shifting carried by multinational corporations, there is an urgent need for developing countries to reform their tax systems by focusing on corporate tax standards and the tax challenges arising from the digitalization of the economy.

While these studies highlight the challenges and opportunities provided by digital and data technologies as well as the ways in which tax administrations are adapting to this transformation, there is little or no evidence as to how tax agencies in developing countries are embracing technology, or the benefits of such technology for managing the ever-evolving modern tax function. Further, the coronavirus disease (COVID-19) pandemic has impacted tax administrations around the world, with those in developing countries the worst affected. With revenues and economic activity in sharp decline, partly because of social distancing and the closure of tax offices, shuttering economies require tax administrators in Asia and the Pacific to innovate (Suzuki 2020). According to a recent World Bank report, the pandemic will bring in a "new normal," and practices of tax administration will have to change accordingly. The report further highlights the importance of automated tax services over the medium term, and a massive acceleration in the use of digital technologies by tax administrations (World Bank 2020). Similarly, the OECD Forum for Tax Administration suggests that this crisis has provided an opportunity to build on lessons learned to improve the resilience and agility of tax administrations in the future (OECD 2020).

Hence, this research aims to explore the role of government reforms concerning the digitalization and automation of the tax system in enhancing voluntary tax compliance, through an in-depth case study of the income tax system in Bangladesh. The chapter attempts to understand how tax stakeholders embrace newer technologies in an income tax system in a developing country, using Bangladesh as a case study. It also discusses the impact of COVID-19 on tax administrations and how both tax officials and taxpayers are responding to the crisis.

11.3 Theoretical Framework: Digitalization and Tax Policy

This study is anchored on the theory of economic growth in the era of a digital economy (Qu, Simes, and O'Mahony 2016). At the macro level, two issues are critical for the well-being of societies: (1) How governments mobilize internal resources and spend them on public goods and services, and more importantly, (2) how fiscal policy is used to steer the economy (Gupta et al. 2017). Scholars find that the digitalization revolution has wide potential to improve fiscal policy in both developed and developing countries. By transforming how tax administrations collect, process, and act on information, the use of digital technology can reshape how governments create tax reforms to design and implement their tax system, spending, and macro-fiscal policies. Chen, Grimshaw, and Myles (2017) identify that digital technology can benefit tax administrations by reducing tax collection costs, increasing administrative efficiency, and fostering innovation in tax policy. Scholars of behavioral economics posit that implementing digital technology can have significant positive effects (Sunstein and Thaler 2009). This is particularly true for taxation, in which compliance is determined by a complex mix of financial, social, moral, and psychological factors. While behavioral economics has demonstrated how a small shift toward digitalization can lead to behavioral change, it can also help an administration move from traditional paper-based filing to an online system, thereby significantly impacting compliance (International Monetary Fund [IMF] 2015).

Digitalization in taxation has both administrative and policy dimensions. Policy effectiveness largely depends on the administrative capacity of a tax system. In adopting policies for digitalization, it is important to consider the extent to which implementation of such policies is administratively feasible. In a developing country, where tax administrative limitations exist, it is often difficult to implement policies for digitalization unless the country adequately addresses the need to build the capacity of the tax administration. It is therefore imperative that the incorporation of technology is considered, not only in tax administration, but also in tax policy, and that tax reform for digitalization is seen more holistically.

Taxation provides developing countries with a stable and predictable fiscal environment, enabling them to accumulate funds for development, poverty reduction, and public service delivery. It offers an antidote to aid dependence in developing countries and provides the fiscal reliance and sustainability needed to promote growth (Lagarde 2016). It is also a strategic tool that makes it possible to finance the provision of public goods such as infrastructure, education, health, and justice, which are essential for growth. Taxes constitute an important component of government revenue, and the ratio of tax to gross domestic product (GDP) is a key barometer of a government's ability to invest in various development initiatives (Nangih, Idatoru, and Kumah 2018). The World Economic Forum (2019) posits that many developing countries like Bangladesh are trying to foster economic growth with the advent of rapid digitalization. This raises the emerging concept of digital citizenship, which is becoming increasingly normalized within advanced democratic states (Schou and Hjelholt 2018) and gaining momentum in developing countries (Busch 2011). This provides a conceptual framework to study the relationship between digitalization and economic growth in the era of a digital economy. In this study, we propose that the digital transformation of a tax system will lead to digital citizenship where taxpayers embrace engagement, which will in turn result in acceptance. The acceptance stage helps its way into new forms of "e-government" and "digital governance" by building the trust necessary to establish citizen–state partnerships.

11.4 Digitalization of Income Tax in Bangladesh

This section presents the history and trends of the digitalization process in Bangladesh's NBR income tax department, which gathers and verifies electronic information for tax credits and refunds for over 4.9 million taxpayers. The NBR is an attractive organization through which to study the role of government reforms concerning digitalization and automation, for several reasons. First, as the apex authority for tax administration in Bangladesh, the organization is responsible for collecting tax revenues (primarily value-added tax, customs duty, excise duty, and income tax), and is a pioneer in adopting digitalization and automation. Second, the organization has implemented a range of initiatives to modernize the income tax administration, including computerizing tax administration and significantly increasing reliance on an accounts-based audit system to promote tax governance. For example, Liu (2011) suggests that the application of computer-aided audits for tax collection and management can improve the quality of tax collection and management. Third, the organization, with help from development partners, is rapidly strengthening the professional and technical capacity of the tax administration. By using digital technology such as e-registration, e-filing, e-payment, and e-withholding, the organization aims to expand the tax base by monitoring potential taxpayers, countering tax evasion, and providing taxpayers with strengthened and effective services to increase voluntary tax compliance.

11.4.1 Current State of Income Tax in Bangladesh

The NBR's income tax department is responsible for collecting direct taxes throughout the 31 tax zones in Bangladesh. Bangladesh has one of the lowest direct tax–GDP ratios in the region (2.86 as of fiscal year [FY] 2019). Out of a population of 167 million, only around five million people (2.9%) are registered taxpayers. A low ratio of return filing is another major problem when it comes to tax compliance. In FY2019, only 2.2 million taxpayers filed tax returns, resulting in one of the lowest filer–population ratios in the world. Although an electronic return filing system is in place, most taxpayers choose to file their taxes manually. The most common reason cited by taxpayers for not opting for electronic filing is that the system to file returns is not easy to understand or user-friendly.

The benefit of digitalization is evident from the sharp increase in tax registration in Bangladesh. Since the introduction of the electronic tax identification number (e-TIN) system in 2014, the number of tax registrations started to increase, tripling from 2015 to 2020 (Figure 11.1).

In developing countries, there is often high potential for revenue collection from large taxpayers (Akhand 2015). Bangladesh, which is no exception, has created a Large Taxpayer Unit to attempt to deal with large taxpayers. However, one of its biggest challenges is weak enforcement actions toward taxpayers in general, and large corporate taxpayers in particular. Increasing tax compliance in a socially cohesive manner is very important for Bangladesh, and digitalization can work as an effective vehicle for this as it emphasizes the application of self-regulatory instruments (e.g., taxpayer education and self-awareness), as opposed to command and control regulations (e.g., penalties and tax audits).

The NBR's first revenue modernization plan (2011–2016) aimed to increase the tax-to-GDP ratio to 13% by 2016 and to widen the use of digitalization in the tax system. The Finance Minister's 2016 budget speech set a target of collecting 50% of total revenue from direct taxes by 2020–2021. The 2016 budget

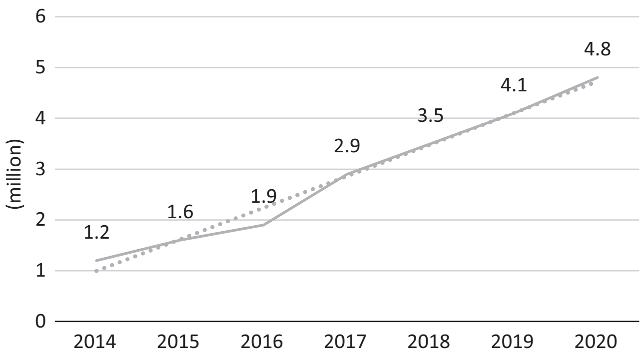

Figure 11.1 E-Registrations of Electronic Tax Identification Numbers in Bangladesh. Source: National Board of Bangladesh; authors.

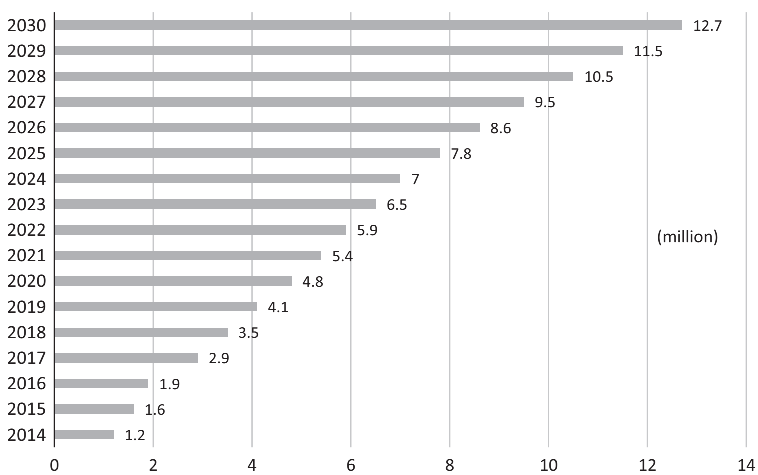

Figure 11.2 Projected Number of Taxpayers by 2030. Sources: National Board of Bangladesh; authors.

document also noted the increased adoption of information technology in the private sector and stressed the need to digitalize the business process in digital gathering and processing of tax information and establish an automated tax information unit. The plan for the digital transformation of tax information and withholding tax management was reiterated in the 2017 and 2018 budget speeches. Under business as usual and given the present growth trend of the tax base, it is projected that there will be 12.7 million registered taxpayers by 2030 (see Figure 11.2).

This figure falls far short of the NBR's target. The Finance Minister's 2018 budget speech targeted ten million registered taxpayers by the end of FY2023, eight million of whom are expected to file tax returns. Digitalization can be a key tool to help reach that goal.

Private sector businesses and individuals are leading to digital innovation. Therefore, it is time for the NBR to adopt digital transformation. However, it is important to note that, for a developing country like Bangladesh, there are potential risks involved in digital transformation without proper attention being given to capacity development, and security fundamentals may pose huge risks as well. Cyber-attacks on the tax system, the leakage of protected information, identity theft, and fraud are commonly faced problems and create huge costs for tax administrations. The NBR has undertaken a comprehensive reform plan to leverage the changes and opportunities inherent in the use of digital technologies, particularly within Bangladesh's income tax system, and it is expected that the NBR will consider all challenges and risks associated with the adoption of digital technologies.

11.5 Materials and Methods

The main purpose of this study is to understand the role of government reforms in relation to the digitalization and automation of the tax system in enhancing voluntary tax compliance in a developing country. More specifically, the study examines the potential impacts of the digitalization and automation initiatives adopted by the NBR in Bangladesh in their pursuit to enhance voluntary compliance with income tax. While the present research is largely qualitative, some descriptive statistics are used. As the digitalization and automation process is still at an early stage in Bangladesh (the NBR introduced its electronic taxation system for income tax in 2014), there are not sufficient data to analyze a longer period of time. Consequently, this research collects qualitative data on five key areas to better understand stakeholders' perspectives on the digitalization of the revenue system, with a focus on personal income taxation in Bangladesh. As COVID-19 has impacted the tax administration's efforts and capability to collect revenue, the role of digitalization of the tax system in coping with the pandemic was also investigated. This study looks at five key areas: (1) Taxpayer awareness, (2) impact of digitalization, (3) taxation and the United Nations (UN) SDGs, (4) the challenges and remedies of digitalization, and (5) tax developments in response to COVID-19.

11.5.1 Data Source

An in-depth, semi-structured, key-informant online survey was used to collect primary data for the research. Hasseldine et al. (2007) argue that such a data collection method allows the researcher to gain an in-depth understanding of the research problem. The survey focused on individual income taxpayers in particular. Survey participants belonged to a wide range of stakeholder categories such as tax officials, tax accountants, civil society members, and students. Participation was voluntary and no monetary incentives were given to the participants for their time in the survey.

11.5.2 Survey Administration

An initial draft of the survey materials was prepared in consultation with the senior NBR officials. A pilot test was then designed and conducted to obtain feedback and improve the survey materials. Three taxpayers and three tax officials were involved in the pilot testing stage in early 2020. The results and feedback of the pilot test stage were used to improve the clarity of the questions and content of the survey materials. After further adjustments, the survey content was submitted to independent readers for checking before the actual survey commenced. Pilot test participants were excluded from the final survey.

The single-stage survey was administered over two weeks (3–17 March 2020), including a follow-up of the procedure for a further two weeks (16–30 July 2020). Taxpayers and tax officials who participated in the survey were from Dhaka (the capital city) and other major cities, ensuring a sound regional distribution with respect to the respondents. The survey collected no personal or identifying information, and participant anonymity and confidentiality were maintained at all times.

The survey received 80 responses: 64 during the survey period, and another 16 elicited by a follow-up request. Two responses were incomplete and thus excluded, leaving 78 valid responses. Table 11.1 summarizes the demographic data.

The participants, 85% of whom were male and 15% female, were picked from a wide range of locations, including Dhaka as well as other regional tax zones and districts. About 40% of the participants were from Dhaka, while 60% were from regional tax zones. Slightly more than half (51%) of the respondents were taxpayers, 21% were tax officials, 13% were tax accountants and tax service providers, 7% were members of civil society, and 6% were students.

Table 11.1 Summary of Sample Participants' Characteristics (N = 78)

	(n)	*(%)*
Gender		
Male	66	85
Female	12	15
Location		
Dhaka	31	40
Other regions	47	60
Occupation		
Taxpayer	41	53
Tax official	16	21
Tax accountant	10	13
Civil society member	6	7
Student	5	6

Source: Authors.

11.6 Results

11.6.1 Taxpayer Awareness

Taxpayer awareness of tax reforms is an important pre-condition to enhancing taxpayers' consciousness of the need to pay taxes (Rahayu et al. 2017). As Jatmiko (2006) explains, consciousness is a state of knowing or understanding. Taxpayer awareness has important implications for enhancing understanding and consciousness that encourage taxpayers to pay taxes (Savitri and Musfialdy 2016). This also helps taxpayers, including civil society, realize that tax is a form of participation in supporting the country's social and economic development.

A large majority of participants (95%) were aware of the NBR's tax automation and digitalization reform, with only 5% either unaware or unsure. Interestingly, female respondents show a higher level of awareness of government reforms relating to the digitalization of the tax system relative to their male counterparts. Respondents who were unsure about the reforms included civil society members and students. Thus, the NBR could take further measures to enhance awareness of its digitalization programs among civil society members, and in educational institutions.

The high level of taxpayer awareness is partly a result of the pro-taxpayer campaign launched by the NBR in 2010 that mainly takes the form of organized annual income tax fairs where taxpayers can pay taxes in a hassle-free environment. The NBR also created a program recognizing the best taxpayers in both individual and corporate categories by awarding crests, tax cards, and certificates. Such motivational programs encourage taxpayers to discharge their tax obligations and enhance voluntary tax compliance. In 2018–2019, the NBR awarded 662 individual and corporate taxpayers for their exemplary tax compliance.

Digitalization has attracted much attention since the early 2010s. In 2014, a mandatory online tax registration program was introduced. In 2012, the NBR introduced e-payment on a limited scale; it extended this further in 2019 by enabling payment through mobile wallets and other financial tools. Online return filing was introduced in 2016, with limited success. These initiatives marked the NBR's seriousness in digitizing its tax management process. More awareness-building initiatives are needed to ensure greater stakeholder participation in these initiatives. Tax seminars and workshops for individual and corporate taxpayers and the use of social media on a greater scale could be some good options. This was mentioned in the response of one survey participant, as follows:

> Awareness needs to be built up with round the year tax workshops and seminars. NBR can arrange the workshops and seminars with corporate officials, Tax Practitioners and Lawyers. Presentations can be given to general taxpayers during Income Tax Fair which is now very popular among them. Building awareness will increase taxpayers' education, timely lodgment of return, and timely tax payment.
>
> (Senior private sector official and taxpayer, male)

Another participant echoed this, saying,

> The key challenges of digitization and government reform of the income tax system is to make the users of both ends educated and aware of the new system. Awareness program can help to bring people in confidence about the online submission of return and online tax payment.
>
> (Tax accountant, male)

Participants also highlighted the important role of political commitment, which is instrumental in promoting taxpayer awareness of digital transformation efforts. As one participant expressed, "Taxpayers are not always treated well by the tax personnel, and there is a lack of effective governance. To overcome the problem, there is a need for continued political commitment to promote awareness about the digital tax system" (taxpayer, male). Another participant added, "To bring the people in confidence for the new system is a challenge. Awareness program can help to bring people in confidence" (civil society member, male).

The above discussion posits that the NBR has ample room for undertaking measures to build awareness of its digitalization programs among taxpayers, civil society members, academicians, students, and other potential taxpaying groups and educational institutions.

11.6.2 Impact of Digitization

Tax scholars find that digitalizing a tax system has a range of benefits, including fighting corruption, enhancing tax compliance, and achieving the SDGs (Fanea-Ivanovici et al. 2019). In keeping with this, this study also finds that the NBR's digital transformation initiatives have already impacted the way the NBR collects the majority of internal revenue and engages with its taxpayers and other stakeholders. Regarding the key impacts of government reforms in relation to the digitalization of Bangladesh's income tax system, participants' feedback was largely positive. While participants perceived that digitalization and automation of the tax system are still at an early stage, about 60% of respondents thought such initiatives had important implications for improving good governance in Bangladesh's income tax administration. Other responses included (multiple responses accepted) (1) it has improved public services (59%); (2) it has helped increase the number of new tax e-registrations (57%); (3) it has helped improve the timely lodgement of tax returns, thereby enhancing tax compliance (57%); (4) it has helped improve timely tax payments (56%); (5) it has improved timely and periodic reporting (49%); and (6) it has improved citizen–state (NBR) relationships (44%).

Female respondents in particular, including those belonging to civil society groups, are more convinced than male respondents of the positive impact of digitalizing the income tax system, including improving public service, enhancing good governance, and improving citizen–state (NBR) relationships. One such response read, "It has helped to maintain transparency and reduce corruption. It has also made the tax payment system easier for the taxpayers" (taxpayer, female).

Another participant added, "Because of the digital transformation, income tax collection will be fairer and trustworthy resulting to increase in the number of income taxpayers. It will also lessen public sufferings, thereby can bring the taxpayers and NBR closer to each other" (civil society member, female).

Prior studies find that tax technology can help enhance transparency and accountability by streamlining taxation processes, which can result in good governance in domestic revenue mobilization (Juswanto and Simms 2017; Migai, Jong, Owens 2018; Hodzic 2018). This finding is echoed in the present survey. Many participants underscored the need for a technology-enhanced tax system for enhancing transparency and good governance. Two such responses read as follows:

> A digitized tax system will be helpful to mitigate on-field corruption and make the system more transparent and easier. It will also ease the process of tax complexity. It will also help to increase the pace of the income tax submission and will motivate more people to contribute to the economic development of the country.
>
> (Member of civil society, male)

> A technology-focused tax administration will provide comfortable ways and means for tax lodgement and tax payment for the taxpayers. The tax collector can also easily collect the tax. Accountability and transparency will be ensured. As a result of automation, there are fewer chances to meet the taxmen and taxpayers, so bribery and harassment will be reduced.
>
> (Taxpayer, male)

According to Moore (2004, 2008), tax administrations in developing countries generally suffer from serious inefficiency and bureaucratically designed corporate governance systems. Prior research on Bangladesh found that "inefficiency, mistrust and lack of mutual understanding" coupled with "complex tax law" discourage taxpayers from being compliant, and indirectly make them unreceptive to coercive actions (Akhand 2015: 614–615). A participant who is a high-level tax official supported online filing, despite describing the existing online filing system as "clumsy," as follows: "Adoption of tax digitalization will smoothen the process of getting e-TIN [Tax File Number]. Though it is a clumsy and rudimentary approach to submit tax returns online, yet online tax payment is effective" (tax official, male).

Another participant, a civil society member, highlighted the importance of digitalization in rebuilding trust between taxpayers and the tax authority by easing bureaucracy, as follows: "I would say that digitalization of the tax system will provide a remedy for taxpayers from harassment by the tax officials and will ease bureaucracy. Consequently, it will increase taxpayers' willingness to pay tax" (civil society member, male).

In a recent study in the context of India, Shukla and Kumar (2019) found that trust is a critical factor affecting the successful implementation of tax reform and that an information technology-enabled system can help develop a sense of trust among taxpayers. This was supported by the following responses: "Because of the introduction of the digital tax system, income tax collection will be fairer and trustworthy resulting to increase in the number of income taxpayers. It will also lessen public sufferings" (civil society member, male), and "Due to the introduction of the IT-enabled tax system, good governance in the income tax can be ensured. It will help establish trust between taxpayers and the tax authorities, which will help mitigate long-pending disputes" (tax official, male).

11.6.3 Taxation and the United Nations Sustainable Development Goals

According to the International Chamber of Commerce (ICC), effective tax policy and administration are instrumental to facilitate economic growth, and in doing so, support the UN SDGs (ICC 2018). In its recent position paper, the ICC (2018) also highlights the importance of modernizing the tax system, particularly in developing countries, through the adoption of digitalization. This was echoed in the first global conference organized by the Platform for Collaboration on Tax at the UN Headquarters in New York in February 2018, focusing on key directions for tax policy and administration needed to achieve the SDGs (World Bank 2018). Table 11.2 summarizes the important role of taxation in this pursuit.

For this survey, participants were asked to indicate whether government reforms relating to the digitalization of the tax system have a role to play in achieving key SDGs. Most participants indicated that such reforms have significant socioeconomic impacts and can help achieve key SDGs. More than three-quarters (78%) said that digitalizing the tax system can play an important role in enhancing inclusive and sustained economic growth, which is aligned with SDG 8. Other responses included the following: (1) It can enhance pro-poor services (32%) (SDG 1), (2) it promotes accountable and inclusive institutions (58%) (SDG 16), (3) it promotes peaceful and inclusive societies (42%) (SDG 16), and (4) it supports female entrepreneurship and enhances women's empowerment (28%) (SDG 5).

In particular, female participants in the taxpayer and civil society groups indicate that digitalizing the tax system can play an important role in promoting accountable and inclusive institutions through enhancing transparency in tax administration with the adoption of the e-TIN. Further, they posit that such initiatives can encourage female entrepreneurship by enhancing women's empowerment, which has long been a subject of discussion as affecting development outcomes in rural Bangladesh (Mahmud, Shah, and Becker 2012; Kabir, Aziz, and Shati 2018). Some of the responses included, "It will help to increase the pace of the income tax submission and will motivate more people to contribute to the economic development of our country" (civil society, female), and "Actually, it will increase the accountability of the Government and we hope that our Government will ensure the development of the entire community" (taxpayer, male).

Table 11.2 Role of Taxation in Achieving the Sustainable Development Goals

Goals	*Targets*	*Key indicators*
Goal 1: No poverty.	Target 1-A: Mobilize resources to implement policies to end poverty.	Poverty eradication A pro-poor and gender-sensitive tax system
Goal 8: Promote sustained, inclusive, and sustainable economic growth.	Target 8-3: Promote policies to support job creation and growing enterprises.	Creating employment opportunities Sustainable economic growth
Goal 10: Reduce inequality within and among countries.	Target 10-4: Adopt fiscal and social policies that promote equality.	Improved efficiency and allocation of resources
Goal 16: Promote peaceful and inclusive societies.	Target 16-6: Develop effective, accountable, and transparent institutions.	E-registration, e-payment, and e-withholding system Promoting digital transactions
Goal 17: Strengthen partnership for sustainable development.	Target 17-1: Mobilize resources to improve domestic revenue collection.	Improving institutional capacity through partnerships among government departments and between governments and the private sector

Sources: International Chamber of Commerce (ICC). 2018. Tax and the UN Sustainable Development Goals. ICC Position Paper. February. Paris: ICC. https://iccwbo.org/content/uploads/sites/3/2018/02/icc-position-paper-on-tax-and-the-un-sdgs.pdf (accessed 9 December 2020); World Bank. 2018. First Global Conference of the Platform for Collaboration on Tax—Taxation and the Sustainable Development Goals, 14–16 February. New York. Washington, DC: World Bank. www.worldbank.org/en/events/2017/06/06/first-global-conference-of-the-platform-for-collaboration-on-tax (accessed 9 December 2020).

11.6.4 Challenges of Digitalization and Their Remedies

The shift to a data-based digital economy and, more importantly, a shift from a manual to an online tax system can pose many challenges for taxpayers as well as the tax administration (Chen et al. 2019). Previously, Shukla and Kumar (2019) found that small and medium-sized enterprises in particular face challenges in filing their tax returns online, notwithstanding the promotional and educational efforts of the government and tax authority. Digitalization poses challenges for tax authorities as well. As Gupta et al. (2017) suggest in a recent IMF report, digitalization has intensified challenges for the tax authorities by enabling an increasing number of companies, including many household names, to operate and sell electronically in multiple jurisdictions without having much of a physical presence there. Thus, cooperative compliance could be an effective response to address these challenges, which are anchored more on mutual trust than on enforceable obligations (OECD 2013).

In our study, respondents were asked for their opinions on the challenges of digitalizing the income tax system and their remedies, particularly in a developing country like Bangladesh. A range of challenges was identified, including (1) the low level of computer literacy and technological knowledge among taxpayers, particularly senior citizens; (2) a lack of proper collaboration between the tax authority and taxpayers; (3) a lack of manpower and equipment; (4) corruption in the tax system; (5) tax officials' lack of knowledge and expertise with respect to digital tools and instruments; (6) tax officials' mindset toward digitalization and reforms, which discourages officials to adopt any kind of automation initiative; (7) inadequate outreach awareness programs to educate taxpayers and tax officials about digitalization and reforms; and (8) a lack of trust and fear of disclosure.

One participant elaborated:

> Most of the people have fears of technology. I mean they do not know how to use a computer or a technological device properly. To educate the people about the benefit of paying tax and about the technologies will be the key challenge in my view.
>
> (Taxpayer, male)

This view was supported by a senior tax official as well, who stated:

> NBR did not get an integrated automation system yet. All are piecemeal. Taxmen are not technology-friendly. Other stakeholders like income tax professionals (e.g., accountants and aides) are not also technology-friendly. Many of the taxpayers have no access to the internet. Many tax men outside the capital city have not minimum technical knowledge. NBR has no server. Actually, automation of the income tax system is in a very primary stage. Have miles to go.
>
> (Tax official, male)

To remedy these challenges, respondents suggested several options, from formulating a long-term plan to make the tax system more user-friendly to promoting awareness through education. One participant added:

> There is a need for proper planning to integrate different stakeholders and sectors and within the business environment a place of commitment to adopt the process alongside the tax officials for the change in the business process due to digitization. Policy-makers also require long term vision to create an example for corruption-free revenue system.
>
> (Tax official, male)

11.6.5 Tax Developments in Response to the Coronavirus Disease Pandemic

In most countries, the COVID-19 pandemic has caused a major decline in tax revenue (IMF 2020). Developing countries are particularly likely to see a significant decline in their average tax-to-GDP ratio because of cross-border disruptions in supply chains, tourism, remittances, and commodity prices (Gasper et al. 2020). In Bangladesh, health measures like social distancing have had distinct effects on income, tax base, tax administration, and taxpayer compliance. Workers in the export-oriented readymade garment and manufacturing sectors, among others, were severely impacted and suffered employment loss (Kabir, Maple, and Usher 2020).

This study also aims to contribute to a better understanding of the impact of COVID-19 on Bangladesh's tax system. More importantly, it aims to shed light on whether or not a digital tax administration can help in collecting tax revenues during a situation like the COVID-19 pandemic. Overall, participants have positive views of the potential role of a digitalized tax system, suggesting that such a system will reduce human interactions and create a hassle-free tax system. One participant elaborated, "Tax returns can be lodged through online system ensuring social distance" (taxpayer, male). Another participant echoed, "It is a great advantage of the digitalized tax system that we can fulfil our tax obligations online during a pandemic like COVID-19. As a taxpayer, I am happy that I don't have to go to the tax office and I can pay my taxes online" (taxpayer, male).

11.7 Conclusions

The main purpose of this study was to examine the role of government reforms concerning digitalization and automation of the tax system in enhancing voluntary tax compliance in a developing country. We used as a case study the income tax system of Bangladesh's NBR, which is at an early stage of implementing reforms in domestic revenue mobilization. We used an online key-informant survey comprising a range of stakeholders including taxpayers, tax officials, tax service providers, civil society members, and others (e.g., students). Key findings from the study indicate that digitalization of the tax system, and of the income tax system, in particular, is seen as a major government reform adopted by the Government of Bangladesh. Study participants demonstrated high levels of awareness of the government reforms undertaken by the NBR in relation to tax automation and digitalization. Participants identified a range of challenges that can pose threats to the NBR in the successful implementation of the reforms, including the need for education and to change the mindset of officials with regard to digitalization and reforms, that discourage them from adopting automation initiatives. Participants also suggested practical solutions to address key challenges in the reform process and indicated a strong desire to push forward the reforms to enhance the governance of Bangladesh's tax system.

Overall, as the study reveals, participants perceive that, while digitalization and automation of the tax system are still at an early stage, such initiatives have important implications for improving good governance in the income tax administration of Bangladesh. Furthermore, participants perceive that the reforms have an impact on enhancing inclusive and sustained economic growth in Bangladesh in the pursuit of SDGs 5, 10, and 16.

As the IMF (2020) suggests, the implementation of new technology by governments must be appropriate to their capacity. This is true for Bangladesh, which is in the early stages of its journey to digitalize its tax system. While Bangladesh's tax system has many administrative capacity gaps, including in the area of digitalization, these study results can be useful for policymakers in many ways by helping them understand stakeholder perceptions of the NBR's digitalization efforts. First, the study outlined the factors influencing various taxpayer groups in meeting their tax obligations in the face of a growing digital economy. Second, from a tax administration point of view, the study summarized the opportunities and challenges of using digital technologies to provide tax services and thereby enhance tax compliance. Finally, from a policy perspective, the study provided insights on and offered multidimensional perspectives of future reforms in tax policy and administration to keep pace with the digital economy in developing and transitioning economies, particularly in Asia and the Pacific. This would help develop a well-functioning revenue system, which is necessary for strong, sustained, and inclusive economic development in the region.

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