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Digitization of Tax Administration in India

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ABSTRACT

Digitization has become an increasingly important aspect of tax administration in India. Digitization is the process by which technology lowers the costs of storing, sharing, and analysing data. This article discusses the meaning and significance of digitization, along with the concepts of digital economy and knowledge economy. Thereafter it discusses the digital tools developed and other IT initiatives taken for various types of taxes such as income tax and GST. This discussion enables us to understand the benefits of digitization for tax administration in India such as cost reduction and better compliance.

***Keywords**: Digitization; Tax administration; Income tax; GST.*

1.0 Meaning and Significance of Digitization

The economics of digitization is the field of economics that studies how digitization affects markets and how digital data can be used to study economics. Digitization is the process by which technology lowers the costs of storing, sharing, and analyzing data. This process has changed how consumers behave, how industrial activity is organized, and how governments operate. The economics of digitization exists as a distinct field of economics for two reasons. First, new economic models are needed because many traditional assumptions about information no longer hold in a digitized world. Second, the new types of data generated by digitization require new methods to analyze.

Research in the economics of digitization touches on several fields of economics including industrial organization, labour economics, and intellectual property. Consequently, many of the contributions to the economics of digitization have also found an intellectual home in these fields. An underlying theme in much of the work in the field is that existing government regulation of copyright, security, and anti-trust is inappropriate in the modern world.

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For example, information goods, such as news articles and movies, now have zero marginal cost of production and sharing. This has made the piracy of information goods common and has increased competition between providers of information goods. Research in the economics of digitization studies how policy should adapt in response to these changes.

A key issue in the economics of digitization is how much people value internet-based services. The motivation for this question is two-fold. First, economists are interested in understanding digitization related policies such as network infrastructure investment and subsidies for internet access. Second, economists want to measure the gains to consumers from the internet. This is an especially important topic because many economists believe that traditional measures of economic growth, such as GDP, understate the true benefits of improving technology.

Digitization has coincided with the increased prominence of platforms and marketplaces that connect diverse agents in social and economic activity. Platforms are most readily identified with their technical standards, i.e. engineering specifications for hardware and standards for software. The pricing and product strategies that platforms use differ from those of traditional firms because of the presence of network effects. Network effects are within platforms because participation by one group affects the utility of another group. Furthermore, network effects make the analysis of competition between platforms more complex than the analysis of competition between traditional firms. Much work in the economics of digitization studies the question of how these firms should operate and how they compete with each other. A particularly important issue is whether successful online platforms should be subject to anti-trust actions.

Digitization has partially or fully replaced many tasks that were previously done by human labourers. At the same time, computers have made some workers much more productive. Economists are interested in understanding how these two forces interact in determining labour market outcomes. For example, a large literature studies the magnitude and causes of skill-biased technical change, the process by which technology improves wages for educated workers.

Another consequence of digitization is that it has drastically reduced the costs of communication between workers across different organizations and locations. This has led to a change in the geographic and contractual organization of production.

Privacy and data security is an area where digitization has substantially changed the costs and benefits to various economic actors. Traditional policies regarding privacy circumscribed the ability of government agencies to access individual data. However, the large-scale ability of firms to collect, parse, and analyse detailed micro-level data about consumers has shifted the policy focus. Now, the concern is whether access consumer

data of firms should be regulated and restricted or not.

There are many other policies related to digitization that are of interest to economists. For example, digitization may affect government effectiveness and accountability. Digitization also makes it easier for firms in one jurisdiction to supply consumers in another. This creates challenges for tax enforcement. Many safety and quality enforcement regulations may no longer be necessary with the advent of online reputation systems. Lastly, digitization is of great importance to health care policy. For example, electronic medical records have the potential to make healthcare more effective but pose challenges to privacy policy.

2.0 Digital Economy and Knowledge Economy

2.1 Digital economy

It refers to an economy that is based on digital technologies. The digital economy is also sometimes called the *internet economy*, *new economy*, or *web economy*. Increasingly, the *digital economy* is intertwined with the traditional economy making a clear delineation harder.

In this new economy, digital networking and communication infrastructures provide a global platform over which people and organizations devise strategies, interact, communicate, collaborate and search for information.

It is widely accepted that the growth of the digital economy has widespread impact on the whole economy. Various attempts at categorising the size of the impact on traditional sectors have been made.

Given its expected broad impact, traditional firms are actively assessing how to respond to the changes brought about by the digital economy. For corporations, timing of their response is of the essence. Banks are trying to innovate and use digital tools to improve their traditional business.

2.2 Knowledge economy

Knowledge economy is the use of knowledge to generate tangible and intangible values. Technology and in particular knowledge technology help to transform a part of human knowledge to machines. This knowledge can be used by decision support systems in various fields and generate economic values. Knowledge economy is also possible without technology.

Other than the agricultural-intensive economies and labour-intensive economies, the global economy is in transition to a *knowledge economy*, as an extension of an *information society* in the information age led by innovation. The transition requires that

the rules and practices that determined success in the industrial economy need rewriting in an interconnected, globalized economy where knowledge resources such as trade secrets and expertise are as critical as other economic resources.

A key concept of the knowledge economy is that knowledge and education (often referred to as human capital) can be treated as one of the following two:

- A business product, as educational and innovative intellectual products and services can be exported for a high value return.
- A productive asset.

It can be defined as products and services based on knowledge-intensive activities that contribute to an accelerated pace of technical and scientific advance, as well as rapid obsolescence. The key component of a knowledge economy is a greater reliance on intellectual capabilities than on physical inputs or natural resources.

The key problem in the formalization and modelling of knowledge economy is a vague definition of knowledge, which is a rather relative concept. For example, it is not proper to consider information society as interchangeable with knowledge society. Information is usually not equivalent to knowledge. Their use, as well, depends on individual and group preferences.

The knowledge economy is also seen as the latest stage of development in global economic restructuring. Thus far, the developed world has transitioned from an agricultural economy to industrial economy to post-industrial/mass production economy to knowledge economy. This latest stage has been marked by the upheavals in technological innovations and the globally competitive need for innovation with new products and processes that develop from the research community.

In the knowledge economy, the specialized labour force is characterized as computer literate and well-trained in handling data, developing algorithms and simulated models, and innovating on processes and systems. Consequently, computer scientists, engineers, chemists, biologists, mathematicians, and scientific inventors will see continuous demand in years to come. Hence, knowledge is the catalyst and connective tissue in modern economies.

Knowledge provides the technical expertise, problem-solving, performance measurement and evaluation, and data management needed for the trans-boundary, interdisciplinary global scale of today's competition.

Worldwide examples of the knowledge economy taking place among many others include: Silicon Valley (California, US); aerospace and automotive engineering (Munich, Germany); biotechnology (Hyderabad, India); electronics and digital media (Seoul, South Korea); and petrochemical and energy industry in (Brazil).

It has been suggested that the next evolutionary step after knowledge economy is

the network economy, where the relatively localized knowledge is now being shared among and across various networks for the benefit of the network members as a whole.

The knowledge economy has manifold forms in which it may appear but there are predictions that the new economy will extend radically, creating a pattern in which even ideas will be recognised and identified as a commodity. This certainly is not the best time to make any hasty judgment on this contention, but considering the very nature of knowledge itself, added to the fact that it is the thrust of this new form of economy, there certainly is a clear way forward for this notion, though the particulars remain in the speculative realm, as of now.

3.0 Digital Tools for Income Tax

3.1 Permanent account number (PAN)

PAN issued by Income Tax Department is the critical element in capturing incomes and expenditures of a person. The Department identifies the assesses/persons with PAN which is a unique 10 digit alpha-numeric number. Obtaining PAN is compulsory not only for income tax purposes but also for certain other purposes/transactions. PAN is to be obtained only once for ever. An assessee need not obtain a new PAN, even if he is transferred to any other place.

In order to strengthen the efforts at enforcement, the Finance Minister in his 1998-99 budget made it obligatory for assessees to quote their PAN or GIR mandatorily in respect of the following high value transactions: purchase and sale of immovable property; purchase and sale of motor vehicles; transactions in shares exceeding Rs. 10 lakh; opening of new bank accounts; fixed deposits of more than Rs. 50,000; applications for allotment of telephone connections; and payments to hotels exceeding Rs. 25,000.

The Finance Act 1998 laid down that under Section 139-A a person whose taxable income is beyond basic exemption limit or turnover exceeds Rs. 5 lakh is required to apply for PAN. Every person has to quote PAN on any document while dealing with Income Tax Department and financial transactions exceeding the specified limit. It has been made compulsory for tax deductors to quote PAN of the deductees in the return of tax deducted and certificate issued to the deductees with effect from June 1, 2001. The Finance Act, 2009 provided that if PAN is not quoted by the deductee, the TDS rate will be 20 percent instead of 10 percent. The main purpose of these amendments has been to compel people to quote PAN, so that information contained in such returns or certificates can be processed properly.

3.2 IT Initiatives

Central Board of Direct Taxes (CBDT), New Delhi, is part of the Department of Revenue in the Ministry of Finance. While the CBDT provides essential inputs for policy and planning of direct taxes in India, it is also responsible for administration of direct tax laws through its Income Tax Department. The Income Tax Department has taken several initiatives in recent years to promote the use of information technology (IT) and IT-enabled services for efficient and transparent administration of income tax.

3.2.1 E-filing of returns

E-filing of income tax return is the process of electronically filing returns through internet which can be filed at any time at any place. While E-filing of income tax return is mandatory for a company and a firm liable to audit under section 44AB, it is optional for other assessees. Similarly, Government has introduced E-filing of returns of tax deducted at source. It is mandatory for corporate deductors to furnish their TDS return in electronic form with effect from June 1, 2003. Further, it has been made mandatory for Government deductors and firms liable to audit under section 44 AB with effect from assessment year 2004-05. Deductors have to file e-TDS returns quarterly since assessment year 2005-06.

National Securities Depository Ltd. (NSDL) has been appointed as the e-TDS intermediary by the Income Tax Department. NSDL receives e-TDS returns from deductors on behalf of Income Tax Department. Deductors can submit e-TDS returns through TIN-Facilitation Centres established by NSDL or directly upload through NSDL web-site.

3.2.2 Online tax accounting system (OLTAS)

Income Tax Department operationalised OLTAS in July 2004. The new single copy challans have been introduced with effect from July 2005. The collecting bank branch will put a rubber stamp on the challan and its counter foil indicating a unique Challan Identification Number (CIN), BSR code and challan serial number. The collecting bank has to capture the entire data of the challan and transmit it electronically to the Income Tax Department. The information received from banks is used by the Department to give credit for the tax paid based on CIN. This is a very significant step for creating tax information network**.**

3.2.3 E-payment of income tax

This facility is provided to the taxpayers for making income tax payment through internet banking facility or through internet by using credit/debit cards.

E-payment of tax is mandatory in certain cases. Thus, all companies and assesses required to get their accounts audited under section 44AB of the Income Tax Act, 1961 are mandatorily required to make e-payment of tax. Other assesses may also make payment of tax electronically.

E-payment of tax can be made only through a bank which provides e-payment facility. Some of the banks are providing facility of opening a separate *e-payment of taxes account* in addition to the normal bank account.

An assessee can make payment from his own account or from the account of any other person in an authorized bank. However, the *challan* must clearly indicate the permanent account number (PAN) of the assessee on whose behalf the payment if made

Similarly, there is facility of e-filing of returns. E-filing of income tax return is the process of electronically filing returns through internet which can be filed at any time at any place.

Likewise, digital signature facility is also available. A person desiring to furnish his return of income electronically, may sign it digitally or manually. For signing the return digitally, he is required to obtain a digital signature. A digital signature is the electronic signature issued by the certifying authority that shows the authenticity of the person signing the same.

3.2.4 E-assessment

Finance Minister Shri Arun Jaitley in his budget speech to the Parliament on February 1, 2018 announced, "We had introduced e-assessment in 2016 on a pilot basis and in 2017, extended it to 102 cities with the objective of reducing the interface between the department and the taxpayers. With the experience gained so far, we are now ready to roll out the e-assessment across the country, which will transform the age-old assessment procedure of the income tax department and the manner in which they interact with taxpayers and other stakeholders. Accordingly, I propose to amend the Income-tax Act to notify a new scheme for assessment where the assessment will be done in electronic mode which will almost eliminate person to person contact leading to greater efficiency and transparency."[1]

3.2.5 Digital signature

A person desiring to furnish his return of income electronically, may sign it digitally or manually. For signing the return digitally, he is required to obtain a digital signature. A digital signature is the electronic signature issued by the certifying authority that shows the authenticity of the person signing the same.

The benefits of digitally signing an e-document are as follows[2]:

a) No physical paper collection and management cost.
b) Instant capture of data printed on the card through OCR reducing cost of human data entry.
c) Instant verification of data based on digital signature, valid under IT Act, eliminating any need for human verification of authenticity of card.
d) Instant ability to authenticate customer using face matching against the card (face matching accuracy these days are higher than fingerprint etc and also is inclusive allowing older persons to match much more easily).
e) Easy secure transmission and storage eliminating any paper cost and increasing security across systems.
f) Because they are digitally signed, these e-documents can be stored in digilocker or any other personal storage and shared with service providers without having to worry about any possible tampering.
g) Service providers can accept such documents via scanning QR code, accepting via upload to their app/portal, accessed via digilocker or other cloud storage, etc providing choice to customers and still ensure the documents are indeed authentic by verifying the structure and digital signature.

4.0 Digital Tools for Goods and Services Tax (GST)

4.2.1 Payment of GST

GST became operative on July 1, 2017. GST is a tax on goods and services with comprehensive and continuous chain of set-off benefits up to the retailer level. It is essentially a tax only on value addition at each stage, and a supplier at each stage is permitted to set-off, through a tax credit mechanism, the GST paid on the purchase of goods and services. Ultimately, the burden of GST is borne by the end-user (i.e. final consumer) of the commodity/service.

Every registered person is required to compute his tax liability on a monthly basis by setting off the input tax credit against the outward tax liability. If there is any balance tax liability, the same is required to be paid to the government.

There are 3 ledgers prescribed by the government which are required to be maintained by every taxpayer.

- *Electronic tax liability register:* It shows the total tax liability of a registered person at any point of time.
- *Electronic cash ledger:* It displays the total amount deposited by the taxpayer towards discharge of his tax liability.
- *Electronic credit ledger:* It records all the taxes paid on the inputs.

Under the GST regime, for any intra-state supply, taxes to be paid are the CGST, going into the account of the Central Government and the SGST, going into the account of the concerned State Government. For any inter-state supply, tax to be paid is IGST which will have components of both CGST and SGST. In addition, certain categories of registered persons—(e.g. e-commerce operators responsible for tax collection at source (TCS) and government departments responsible for tax deduction at source (TDS)—are required to pay TCS and TDS to the government account.

In addition, wherever applicable, interest, penalty, fees and any other payment will also be required to be made.

In general, the supplier of goods and/or service is liable to pay GST. However in specified cases like imports and other notified supplies, the liability may be cast on the recipient under the reverse charge mechanism.

GST payment is to be made by the taxable person at the time of supply of goods and at the time of supply of services. The time is generally the earliest of one of the three events, namely receiving payment, issuance of invoice or completion of supply. Different situations envisaged and different tax points have been explained in the GST law.

Liability to pay tax arises when the taxable person crosses the threshold limit of turnover, i.e. Rs. 20 lakh (Rs. 10 lakh for Special Category States) except in certain specified cases where the taxable person is liable to pay GST even though he has not crossed the threshold limit.

4.2.2 Features of GST payment

The payment processes under GST regime have the following features:

a) Electronically-generated challan from GSTN Common Portal in all modes of payment and no use of manually prepared challan.
b) Hassle free, anytime, anywhere mode of payment of tax.
c) Convenience of making payment online.
d) Logical tax collection data in electronic format.
e) Faster remittance of tax revenue to the government account.
f) Paperless transactions.
g) Speedy accounting and reporting.
h) Electronic reconciliation of all receipts.
i) Simplified procedure for banks.
j) Warehousing of digital challan.

4.2.3 Methods of GST Payment

Payment of GST can be made electronically with a common *challan* (i.e. document for payment of taxes) for all the taxes. Various modes of GST payment are available to the taxpayer including the following:

1. Through debit of credit ledger of the taxpayer maintained on the common portal of GSTN. Only tax can be paid. Interest, penalty and fees cannot be paid by debit in the credit ledger. Taxpayers are allowed to take credit of taxes paid on inputs (input tax credit) and utilize the same for payment of output tax. However, no input tax credit on account of CGST shall be utilized towards payment of SGST and vice versa. The credit of IGST would be permitted to be utilized for payment of IGST, CGST and SGST in that order.
2. In cash by debit in the cash ledger of the taxpayer maintained on the common portal of GSTN. Money can be deposited in the cash ledger by different modes, namely:
   - E-payment (internet banking, credit card, debit card).
   - Real time gross settlement (RTGS)[3]
   - National electronic funds transfer (NEFT).[4]
   - Over the counter payment in branches of banks authorized to accept deposit of GST.

     Timing of payment is from 00.00 hrs. till 20.00 hrs.

4.2.4 Goods and service tax network (GSTN)

Among the various steps that are being taken for the introduction of Goods and Services Tax (GST) is the establishment of a strong information technology (IT) infrastructure. For this purpose the Government has set up an Empowered Group (Chairman: Nandan Nilekani). Significant progress has been made in the conceptualization and design of the GSTN—a common portal for the Centre and States that will enable electronic processing of the key business processes of registration, returns, and payments.

For the implementation of GST in the country, the Central and State Governments have jointly registered GSTN as a not-for-profit, non-government company under section 25 of the Companies Act, 1956. It will provide shared IT infrastructure and services to Central and State Governments, tax payers and other stakeholders. GSTN is a special purpose vehicle (SPV) which aims to provide a standard and uniform interface to the taxpayers, and shared infrastructure and services to Central and State/UT Governments. It will be the interface between the government and the taxpayers.

GSTN is working on developing a state-of-the-art comprehensive IT infrastructure including the common GST portal providing front-end services of registration, payments and returns to taxpayers. It will also assist some States with back-end IT modules that include processing of returns, registrations, audits, assessments, appeals, etc. All States, accounting authorities, Reserve Bank of India (RBI) and banks are also preparing their IT infrastructure for the administration of GST. There would be no manual filing of returns. All taxes can also be paid online. All mis-matched returns would be auto-generated, and there would be no need for manual interventions. Most returns would be self-assessed.

The functions of the GSTN, *inter alia*, include the following:

a) Facilitating registration.
b) Forwarding the returns to Central and State authorities.
c) Computation and settlement of IGST.
d) Matching of tax payment details with banking network.
e) Providing various MIS reports to the Central and the State Governments based on the tax payer return information.
f) Providing analysis of tax payers' profile.
g) Running the matching engine for matching, reversal and reclaim of input tax credit.

GSTN would also be integrating the common GST portal with the existing tax administration IT systems and would be building interfaces for taxpayers.

GSTN is a unique and complex IT initiative. It is unique as it seeks, for the first time, to establish a uniform interface for the taxpayer and a common and shared IT infrastructure between the Centre and States. Currently, the Centre and State indirect tax administrations work under different laws, regulations, procedures and formats and consequently the IT systems work as independent sites. Integrating them for GST implementation would be complex since it would involve integrating the entire indirect tax ecosystem so as to bring all the tax administrations (Centre, State and Union Territories) to the same level of IT maturity with uniform formats and interfaces for taxpayers and other external stakeholders. Besides, GST being a destination-based tax, the inter-state trade of goods and services would need a robust settlement mechanism amongst the States and the Centre. This is possible only when there is a strong IT infrastructure and service backbone which enables to capture, process and exchange information amongst the stakeholders.

GSTN will render the following services through the common GST Portal:

a) Registration (including existing taxpayer master migration and issue of PAN-based registration number).

b) Payment management including payment gateways and integration with banking systems.
c) Return filing and processing.
d) Taxpayer management, including account management, notifications, information, and status tracking.
e) Tax authority account and ledger management.
f) Computation of settlement (including IGST settlement) between the Centre and States; clearing house for IGST.
g) Processing and reconciliation of GST on imports and integration with EDI systems of Customs.
h) MIS including need-based information and business intelligence.
i) Maintenance of interfaces between the Common GST Portal and tax administration systems.
j) Providing training to stakeholders.
k) Providing analytics and business intelligence to tax authorities.
l) Carrying out research, study best practices and provide training to stakeholders.

The structure of GSTN has been approved by the EC. GSTN will be set up as a National Information Utility. GSTN will implement common PAN-based registration, returns filing and payments processing for all States on a shared platform. The use of PAN as a common identifier in both direct and indirect taxes, will enhance transparency and check tax evasion.

National Securities Depository Limited (NSDL) has been selected as technology partner for incubating the National Information Utility that will establish and operate the IT backbone for the GST. In this regard, NSDL has set up a pilot project in collaboration with 11 States prior to GST roll-out across the country. Three Joint Working Groups of officials have also been constituted comprising officials from the Central Government, State Governments, and the Empowered Committee (EC) of State Finance Ministers to work on legislation, business procedures and IT infrastructure respectively. GSTN has already appointed M/s Infosys as Managed Service Provider.

RBI's e-Kuber system functions as an 'aggregator' for GST collections and is integrated with Central Board of Indirect Taxes and Customs (CBIC), various State Governments and Union Territories, agency banks and GST Network (GSTN). Apart from other payment options, GST payers can also remit taxes directly to the Government account/s maintained with the Reserve Bank of India, through NEFT and RTGS. Under NEFT/RTGS mode, credit of tax to the Government account takes place on the same day, whereas in other modes of GST payments, the Government account is credited on T+1 basis after reporting by agency banks. An online resolution mechanism for

facilitating reconciliation of GST transactions, called Memorandum of Errors (MoE), has been put in place in coordination with CBIC.

5.0 Customs Duty

In the ICEGATE (Indian Customs Electronic Commerce/Electronic Data Interchange Gateway) system operated under the aegis of the Office of the Principal CCA, the e-payment module enables users to pay their custom duties online using electronic payment options. Process is underway to integrate ICEGATE system with RBI's e-Kuber to enable direct payment of the duties into Government account with RBI using NEFT/RTGS payment option, like the facility available for GST payments.

To sum up, the tax administration in India has undergone a sea-change with the advent of the digital revolution. Various digital tools have been introduced for filing, payment, assessment and accounting in respect of different types of taxes. Digitization of tax administration would go a long way in ensuring efficiency, cost reduction and better compliance.

Endnotes

1. Government of India, Ministry of Finance, Budget Papers (2018-19), Speech of the Finance Minister, para 157.
2. Source: Reserve Bank of India, *Report of the High-Level Committee on Deepening of Digital Payments* (Chairman: Nandan Nilekani), May 2019, p. 82.
3. National Electronic Funds Transfer (NEFT): Electronic Funds Transfer (EFT) system was introduced in the mid-1990s. EFT facilitates transfer of funds from one bank account to another. In the beginning EFT system was permitted only for government transactions and RBI-initiated payments. NEFT is an electronic message-based payment system, and was introduced by the Reserve Bank of India in November 2005 to replace the EFT system which was public key infrastructure (PKI)-enabled and the settlements were effected on a decentralized mode.
4. Real Time Gross Settlement (RTGS) System: The Indian RTGS system was operationalised in March 2004. The system started operations with four banks and settled only inter-bank transactions. Subsequently, the system was opened for settlement of customer transactions. It was operationalised for settlement of multilateral net settlement batch (MNSB) files from September 2006.