Knowledge Solutions

ICC BRITACOM report: Digitalisation of tax administrations: A business perspective

Introduction

The International Chamber of Commerce (ICC), as the world business organization, works to promote open, rules-based multilateral trade and investment, a market economy system, sustainable economic growth, responsible business conduct and a global approach to regulation.

In the area of taxation, ICC supports transparent, efficient, predictable and stable tax regimes that incentivise long-term investment, job creation and economic growth. ICC advocates for a consistent global tax system, founded on the premise that stability, certainty and consistency in global tax principles are essential for business and will foster cross-border trade and investment.

ICC welcomes the opportunity to provide a report to the international Belt and Road Initiative Tax Co-operation Mechanism (BRITACOM) on the digitalisation of tax administrations. ICC recognises BRITACOM's commitment to the establishment of long-term cooperation between participants of the Belt and Road Initiative (BRI) as an important way to improve governance in international taxation, create a more enabling environment for investment, and boost global economic growth.

The ICC Report will contribute to deliberations in the context of the Conference of the Belt and Road Initiative Tax Administration Cooperation Forum (BRITACOF) and the Business and Industry Dialogue to be hosted in Kazhastan in May 2020, which will focus on tax digitalisation, and which is expected to bring together over 70 countries from along the BRI.

Background
The digitalisation of society is taking place at unprecedented speed. Digitalisation impacts almost every area of an individual's daily life extending from the way individuals communicate, shop or pay bills. In the business environment, digitalisation in factories has allowed for a seamless integration of designing, testing, manufacturing and billing. It has been integrated to accounting systems and other business support processes, which allow for the analysis of available data to gain insight to better manage respective processes. This holds especially true for tax processes within businesses. It is, therefore, logical that tax administrations would also implement digitalisation in their processes, with an emphasis on the interface between the taxpayer and tax administration.

Tax authorities around the world are grappling with the challenge of adapting revenue collection models to a global economy that is continually reshaped through transformative digital technologies. As government services become increasingly digitalised, businesses are faced with evolving trends and strategic questions. Many tax administrations are undergoing a global revolution in tax compliance as they seek to digitalise their processes to enhance efficiency and effectiveness. This is creating interesting dynamics where complex business systems and processes need to adapt to information and communications technology systems designed by the public sector.

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Principles for digitalisation

A good tax system is one which minimises administrative, compliance and distortion costs to the economy. Therefore, a key feature of a good tax administration is a sound information system. This includes the adoption of technology for creating the system and the application of accompanying taxpayer services. This adoption and application will not only build confidence among taxpayers, but also improve compliance measures.[1]

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[1] Accessed at http://www.nipfp.org.in/publications/working-papers/1781/

It is, nevertheless, important to exercise some caution in adopting new approaches as technology is evolving rapidly, and the future of digitalisation is unclear.

The following principles[2] should, therefore, where possible, be considered to ensure maximum benefits of systems for both the private and public sectors:

Efficiency:
- ***'Provide data only once' principle*** – Digitalisation should be aimed at alleviating the burden on taxpayers, within the limits of relevant confidentiality laws, to provide the same data multiple times to tax and other public or law enforcement authorities.[3] The systems should not add to but reduce, and, if possible, replace pre-existing functionally equivalent requirements.

- ***Consistency*** – Digital systems should be consistent and remain stable over time. Systems should be designed and operated in such a way that businesses are not confronted with contradictions or conflicts across their geographic or sectoral obligations. In addition, consistency among legal, process and technical requirements involved in business compliance with digital systems should be sought as requirements and practical conditions for access and use of digital systems evolve over time within each relevant jurisdiction.

- ***Interoperability*** – Digital systems should be interoperable among jurisdictions from a legal, technical and operational perspective.

- ***Harmonisation*** – Digital systems should seek to be harmonised and uniform in technical, legal and process specifications, both in domestic and international scenarios, aiming to satisfy public and private sector needs. Where digital systems are deployed, the design should where possible use accepted international standards for data, security and transmission protocols that are already widely deployed in practice.

- ***Robustness and continuity*** – Digital systems should be operationally stable, maintain appropriate response and processing times, publish service level agreements, communicate effectively in case of problems meeting such service levels, and specify the controls they perform on submitted data.

Balance:
Digital systems should be designed and operated in a way that considers the need for balance between the legitimate interests of governments and businesses:

- ***Economic benefits*** – Digital systems should be aimed at safeguarding VAT revenues and keeping compliance costs for business as low as possible. These are clear benefits for both tax administrations and businesses. An initial period of voluntary adoption, based on clear benefits (e.g. reduced archiving time; tax efficiency incentives; fewer periodic reporting requirements), should always be considered prior to mandating the system to taxpayers.

- ***Encourage automation*** – Digital systems should contribute to the promotion of standard-based business process automation.

- ***Flexibility*** – Digital systems should leave enough flexibility to allow for the implementation of compliant processes that maximise efficiency across jurisdictions within a common framework of varying digital systems and other tax or legal requirements. They should accommodate and follow existing business and commercial processes and avoid creating a 'separate universe' of document types, process orchestration and technical standards or setting up a new system that is incompatible with existing business transaction automation platforms.

- ***Proportionality*** – Digital systems should be proportionate to the benefits sought and avoid

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[2] ICC Practice Principles for implementation of continuous transaction controls by tax authorities
[3] For example, section 6103 of the Internal Revenue Code provides that returns and return information shall be confidential, subject to exceptions. ICC is not advocating that confidentiality protections be reduced or eliminated. Rather, information that may be shared, should be shared digitally, rather than seeking the same information mulitiple times from the taxpayer.

disproportionate burdens and costs to businesses. Disruption of business operations and distortion of competition should also be avoided.

- **Consultation with business & appropriate lead time** – A robust onsultation with business from conception to implementation is vital. This includes allowing time for business to be involved in upfront testing and granting business the appropriate lead time to implement new technology driven practices. The more novel the system, the more lead time will be necessary. Appropriate transition rules, including penalty relief should also be considered.

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Continuous transaction controls (CTCs)

Digitalisation might include the concept of 'continuous transaction controls' (CTCs) which enable law enforcement agencies, such as tax administrations, to harvest data associated with business activities that are relevant to the exercise of their function. Such data is obtained directly from business transaction processing and/or data management systems, in real-time or near real-time. Before adopting CTCs, in addition to the principles set forth above, governments need to consider additional factors. First, real time data may be of poor quality. Therefore, harvesting data in real time or near real time, may lead to inaccurate results. Allowing business to follow-up and correct inaccurate data before submitting it, may lead to more accurate results. Second, taxpayers must be confident that data privacy will always be respected, even when countries have disputes among themselves. ICC is currently working on this topic within a multi-stakeholder group to collectively understand and identify solutions for ensuring trends and the use of technology has a positive impact on trade, as well as advance the common goal of reducing tax burdens on business while also facilitating tax collection by countries. Some of the initial principles developed by this group are referenced in this document, and are seen to apply broadly to concepts of digitalisation of tax administrations.

CTCs for corporate income tax
There may be complexities and inaccuracies in applying CTCs for purposes of the corporate income tax. Information in the taxpayer's system will be initially prepared and reviewed by internal accountants. Their job may not require them to consider the tax consequences of the data entered into the internal systems. For example, the accountants might not be concerned about the accuracy of intercompany transactions because for accounting purposes the transactions will be eliminated upon consolidation. Without tax reviews first, extracting data directly from the taxpayer's accounts may lead to unnecessary audits. In addition, tax rules are often different from audit rules, so extracting data prior to adjusting the financial accounts for these differences would also lead to inaccuracies and unnecessary audits.

Extensive work is underway at the Organisation for Economic Cooperation and Development (OECD) around the use of financial accounts as a basis for the income determination, as well as different mechanisms to address temporary differences between tax and financial accounting. The objective would be to limit adjustments for permanent differences to reduce complexity and compliance costs"[4]. It is unlikely that using unadjusted numbers taken from financial accounts would produce accurate results for tax purposes. The adjustments being considered by the OECD are complex; they are, however, working towards a goal of a single tax base for purposes of the global minimum tax. The complexity of using CTCs based on financial statement information is greater, because countries are not attempting to create a common tax base, so that the adjustments would need to be different for different countries.

Lastly, different businesses have different business models. The related data processes and systems are varied. Some may even involve manual elements that are not captured by systems. In light of this, in order to implement CTCs or "real time data", both taxpayers and tax administrations could be faced with very significant technical challenges.

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[4] https://www.oecd.org/tax/beps/statement-by-the-oecd-g20-inclusive-framework-on-beps-january-2020.pdf

The objectives of digitalisation

Digitalisation by the tax administration should be considered as a fundamental change and not solely digitising the existing processes. The term digitisation refers to "the action or process of digitising; the conversion of analogue data (esp. in later use images, video, and text) into digital form".[5]

Tax administrators in each country have different objectives, policies and roles. In order to gauge/measure efficiency of tax administration, it is important to understand the broad capabilities that a tax administration aims to achieve in the digitalisation process. These are:[6]

- *Information Management*: A core digital tax system provides support, automation, workflow management, and authorisation management to tax administration functions; gathering commercially available information from external and internal sources which shall assist in increased collection of tax revenues.

- *Taxpayer compliance***:** An e-tax system provides information, education, and support to taxpayers and facilitates and eases compliance and administration;

- *Tax Risk Management*: A compliance performance system deploys risk-based procedures to detect and deter non-compliance; and

- *Administration***:** A management information system that facilitates the collection and dissemination of performance information to staff and management reduces tax collection cost and also raises revenues through combatting tax avoidance/evasion.

More generally, objectives for investing in digitalisation include the following:

- Gain efficiency by digital interfaces, automated data gathering, data processing and data analysis (tax audit risk) etc.
- Enhance compliance with applicable tax law by better understanding and analysing available data – pre-tax audit or within a tax audit.
- Improving macro socio-economic predictability to close tax gaps.
- Enhance taxpayer service by creating efficiency for the tax payer and improving communication flow.
- Improve taxpayer trust through increased transparency of strategy, processes and investments, through structured and/or visually-supported data, which has been proven to increase taxpayer satisfaction and voluntary compliance.
- Enable real-time secured cooperation within the tax ecosystem, amongst tax administrations and taxpayers (businesses and individuals), as well as cooperating with tax advisors, banks, employers, stock exchange committees, chambers of commerce, etc.

Currently, certain technology trends, including Big Data, analytics, artificial intelligence (AI), machine learning (ML), the Internet of Things (IoT), mobility and cloud computing all have an impact on tax administrations. Taken individually or together, these trends have the power to increase taxpayer satisfaction, empower tax agency employees, optimise operations and modernise services.

The attached *Annex 1: Supplementary information: Objectives of digitalisation* provides a more detailed analysis of some of these objectives.
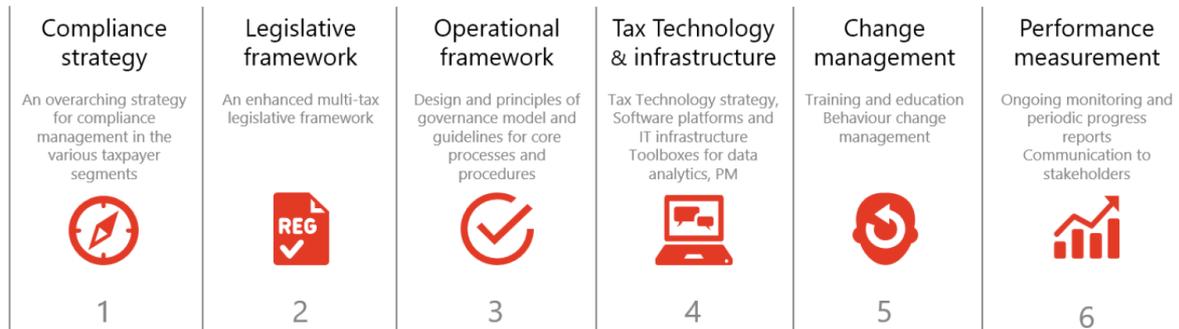
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[5] Significant IT Trends
[6] USAID Publication Information Technology for Tax Administration

Key components of a successful digital transformation

Digitalisation is a holistic approach that incorporates six key components of a successful digital transformation, indicated below.

Compliance strategy	Legislative framework	Operational framework	Tax Technology & infrastructure	Change management	Performance measurement
An overarching strategy for compliance management in the various taxpayer segments	An enhanced multi-tax legislative framework	Design and principles of governance model and guidelines for core processes and procedures	Tax Technology strategy, Software platforms and IT infrastructure Toolboxes for data analytics, PM	Training and education Behaviour change management	Ongoing monitoring and periodic progress reports Communication to stakeholders
1	2	3	4	5	6

(Source: The Data Intelligent Tax Administration whitepaper, Microsoft and PWC, 2018; page 8)

Although digitalisation can achieve the same goals as outlined above, they are not necessarily exclusive and, at best, could be addressed at the same time via a fully integrated digitalisation concept.

Prerequisites from a business perspective
From a business perspective, ICC supports the areas identified, however, respectfully notes a number of prerequisites for consideration.

- o   Data security
    These are key questions to any digitalisation project. Each tax authority is required to safeguard the confidentiality of data and to ensure that the data may not be used by third parties.[7] The information exchanged via digital interfaces needs to be secure. It is imperative for business confidence that the law enforcement authority or certified private entity treats submitted business data in accordance with internationally accepted standards and legal commands for data protection, data privacy and data security. Particularly, the confidentiality of business data is paramount. Such consistency should be an integral and prioritised objective in the system design.

    This includes the need for tax administrations to ensure that the digital interfaces do not create a gateway for viruses or other digital threats to the Information Technology (IT) systems of taxpayers, including harvesting of tax and personal data for misuse. The European General Data Protection Regulation (GDPR) is a key requirement that applies to tax related information. Accountability for security breaches needs to be considered.

    Without data protection, taxpayers will not be willing to comply with new digitalisation concepts which could lead to a situation where a company refrains from investing in a certain country rather than exposing privileged data to the risk of a third party hijack.

- o   System requirements
    Some systems and interfaces on the sites of tax administrations do not easily cooperate with systems on the sites of taxpayers. Therefore interoperability is paramount when deciding on the technology to adopt. Another key aspect is scalability of the platform as the data volumes are ever growing and require adequate compute power.

    The disadvantage of digitalisation is that it will, in the first instance, lead to increased compliance costs. Recent e-filing, e-accounting (i.e, the specific taxanomy) and the country-by-

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[7] According to existing regulations such as the European General Data Protection Regulation

country (CbC) reporting requirements demonstrate that the introduction of new digital methods results in additional compliance costs, and imposes an additional burden on the taxpayer. At the same time, recent digitalisation measures require the taxpayer to produce its company information into a pre-defined format which does not necessarily align with the actual facts and circumstances in all relevant cases. On a global scale, there is, of course, the additional risk of various, ambiguous or conflicting domestic rules to be followed by MNEs.

Variations in systems or rules can be concerning for businesses in terms of the impact on business processes and systems, the lack of cross-border transaction interoperability, data level differences and data process fragmentation. The harmonisation of data formats would be a welcome development in this regard.

Country example: Germany introduced e-accounting in 2012. All companies are required to file their annual accounts in accordance with a specific format (taxanomy) each year electronically. Whereas in general, the system works appropriately, the taxaonomy has been criticised as being too rigid. Taxpayers have generally been overwhelmed by the formats and unable to report certain transactions appropriately. This has led to controversies in audit.

o   Data availability
Businesses often have to maintain dedicated staff to ensure compliance via tax-specific processes in traditional tax enforcement. The use of modern technology plays an important role to safeguard revenues and gain efficiencies both for tax administrations and business. For this to happen and to gain the maximum benefit for all stakeholders, the use of modern technology needs to be based on a consistent legal framework and in the context of a cooperative compliance regime, connecting the business/commercial and the tax administration processes.

The balance should be weighed between the expected benefit of data and the additional effort for taxpayers to provide the data, that may not always be easily available from their existing sytems.

o   Reasonable use of data
While the goal of transparency is clearly desirable, there is an imminent and realistic risk that tax administrations will accumulate vast amounts of data (big data) without providing for the means to test and analyse it. Therefore, data will be stored without any particular purpose; legally infringing upon the taxpayer's fundamental right to data privacy while bearing the risk that – without proper comprehensive screening – the data will be used randomly to serve ad-hoc purposes (e.g., supporting tax audit adjustments). Without a proper, detailed and verifiable analysis, the data would not lead to a fair tax system.

Data classification and governance are paramount to embarking on the digitalisation journey

o   Transparency
It is important for taxpayers to understand the purposes for which tax administrations are compiling their data. The same is true for specific audit algorithms tax administrations use. Taxpayers should be involved in every step of the process. On the one hand, to protect their data privacy rights and on the other, to develop an efficient data collection and taxing regime which provides for equilibrium between the tax authority's right to data and its procedural need for transparency and verification and the taxpayer's legitimate interest in minimising the storage and use of company/personal data as well as in reducing compliance costs.

As an example, a company may use different enterprise resource planning (ERP) systems globally. With global digitalisation and cross-border exchange of information, it is vital to streamline the information deduced from such ERP systems. Companies are likely best suited to define standards of volume transformation protocols that they actually use.

o   Taxpayers identity:
Making the digital world an organic part of tax administrations requires improving identity and security solutions and delivering contemporary online tools/services in multi-channels for

personalised, digital engagement with citizens.

- o Consistency
  Consistency across tax jurisdictions, particularly around the interface between tax payers and tax administrations will be paramount to reducing the burden on the tax payer. Additionally, timelines will vary for tax payer compliance and implementation by tax administrations should be taken into account in this evolution.

The digital transformation journey for tax and revenue agencies will naturally be guided by best practices on cloud security, privacy and compliance due to the sensitive and private nature of the data they manage.

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Tax technology and infrastructure

To optimise the benefits of tax technologies as well as manage compliance risks and rising future revenues, tax administrations should consider developing a strategy to guide the direction of innovations and provide a clear picture of the end-state design of a tax technology infrastructure. New technology has its own set of requirements, including a suitable physical environment for installation, continuous support in the day-to-day environment, ongoing maintenance and license costs, new security requirements, monitoring and planning for future improvements, etc. Many of these challenges can be resolved through service level agreements with a trusted cloud service provider, to ensure that data remains secure and that strict data privacy measures[8] are adhered to. The Tax Technology Strategy guides the direction for all innovations and provides a clear picture of the end-state design of a tax technology infrastructure for the tax administration. Given the rapid evolution of the current regulatory environment, it is important to consider agility in the implementation of digitisation to ensure that infrastructure and approach can be managed over time. Often, in times of change, tax payers revert to tools and processes that are more agile rather than less rigid infrustracture tools.

According to the 2018 United Nations E-Government Survey 2018,[9] good governance is an enabler of technological development and innovation. In addition, the three most commonly used online services in 2018 by governments across the globe are utilities payment, submission of income taxes, and registration of new businesses. The survey reports that approximately 140 Member States provide at least one transactional service online, i.e filing income taxes online. Therefore, whilst it is evident that tax administrations have embraced technology, it is clear that the related impact regarding the use of technology has not yet reached its full potential.

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Benefits from efficient digitalisation of tax administrations

Efficiency of tax administrations has considerable impact on the performance of their tasks, and thus, the application of tax law in practice. The efficiency of tax administrations means the efficiency of its structures, which translates into the efficiency of action. Tax administrations that focus on process improvement and a sound model can inject operational efficiency. Having a sound process and efficient operation at the back end can significantly improve the experience at frond end. Efficient operations as suggested in this document, can benefit in multiple ways such as:

- The ability to measure and reduce the tax gap ratio
- Reduced tax collection costs and increased benefits
- Improved productivity and service delivery resulting in better tax collection
- Increased taxpayer satisfaction which results in a better trust factor
- No redundant efforts leading to minimum wastage
- Increased participation and engagement among tax administrators on core tasks

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[8] Such as the European General Data Protection Regulation or other local data protection rules
[9] Accessed at publicadministration.un.org

Benefits for Taxpayers	Benefits for Tax, Finance and Customs agencies
o Enable 365 24/7 self services and quick access to relevant information o Know their tax position (personal, VAT, business, etc.) and regulations and initiatives that affect them o Make it easier to register, pay, receive notifications, and comply o Process quicker tax refunds by leveraging automation of processes	o Receive more information on taxpayers; gain insights to offer more targeted citizen services o Enable greater transparency: where revenues are invested as well as their impact o Implement automated fraud prediction and prevention models o Leverage intelligence to impact country priorities and create intelligent policies o Allow taxpayers to take control of monitoring basic compliance requirements

Proper management of risks regarding the fulfilment of tax obligations allows tax administrations to focus the burden of audit to non-compliant taxpayers, increase the level of voluntary compliance of taxpayers and weigh the possibilities that a compliant taxpayer could become non-compliant.

The OECD, in its **2018 report**[10], recognises that digitalisation has already had a threefold positive impact on tax administration: enhancing the effectiveness of tax compliance, improving taxpayer services and reducing tax compliance burdens.

Conclusion

ICC considers the trend of digitalisation in government services as a key strategic business topic with great potential to increase the efficiency of business and government operations in general. Unfortunately, there are currently high risks and substantive costs to companies -engendering broader economic implications - due to a lack of coordination among the governments introducing new digitalisation systems. ICC is of the view that closer collaboration with all stakeholders, and the consideration and application of key principles in digitalisation strategies and processes, will help ensure that these systems are a benefit, and not a hindrance, to business supply chains and government operations. ICC remains committed to providing knowledge and expertise on behalf of business with a view to identifying solutions for ensuring that trends and the use of technology has a positive impact on trade.

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[10] OECD: Tax Challenges arising from Digitalisation: Interim Report 2018

ANNEX I: Supplementary information: Objectives of digitalisation

Efficiency gains via digitalisation

Various approaches can be considered to create efficiencies in tax administrations via digitalisation. In the first instance, this would entail the sharing of important information via digital means which reduces the amount of human interaction between taxpayers and tax administrations. The subsequent stages including the electronic exchange of relevant tax data (e.g. e-filings and e-declarations containing the necessity of a legally binding e-signature) and risk-based analysis for selecting the most appropriate audit targets are also important areas of focus.

Technology can unearth solutions to solve existing issues in the tax framework. Technology may improve the ability of tax administrations in developing countries to perform different administrative functions. Further, it can endeavour to improve compliance and trust between the various stakeholders, particularly with the taxpayer business community. IT has become the backbone to effective administration of tax systems: digitalisation can enable efficient and effective administration.

The tax administration's primary task is to ensure that the right amount of tax is paid by the right taxpayer at the right time. An administration that achieves this task is effective. An administration that does so at a reasonable, minimal cost to the government and business is efficient.

Achieving digitisation is a key priority policy for public administrations. The current e-governance era has revolutionised public administration efficiency in order to cater to its citizens. Technology has the potential to promote responsiveness, transparency, accountability, connectivity, innovation, and ultimately, more sustainable outcomes of policy implementation, which strengthen the overall legitimacy of governments. Many e-governance methods such as obtaining driving licenses, healthcare facilities etc. have also adopted the use of technology.

With countries developing their own implementation strategies, measuring efficiency is vital to verify whether the desired objectives have been met. Digitalisation efficiency is one of the key value scales to measure public administration. Efficiency, which is considered as the maximisation of the production function is also touted to be a pillar and an intrinsic value of public administration. The cost/benefit of implementation needs to be weighted across both public and private sectors.

From a tax administration perspective, whether the desired efficiency has been achieved has been a subject of debate across economies. Digitalisation and technology enables scales to meet the growing demands of compliance. For modern technology to gain maximum efficiency for all stakeholders, it needs to run within a consistently applied international tax framework and a well-functioning cooperative compliance regime.

Increase Operational Efficiency
A McKinsey report on "The opportunity in government productivity" mentions that 60% of government transformations fail largely due to a lack of direction, delivery, and drive.[11] Therefore, tax administration can improve its efficiency, i.e more output for less input through the following ways:

- **Infrastructure modernisation**
    - As a starting point, the tax administration must understand the needs and the environment within which it operates to ascertain how sophisticated a system is required. A dispassionate assessment should be made.[12] Further, an accurate knowledge about the taxpayer environment is imperative to decide the appropriate digitalisation infrastructure.

    - Another aspect of infrastructure is adopting new technologies and moving away from legacy processes. Often existing legacy issues cause major impediments for a smooth

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[11] The opportunity in government productivity," April 2017, on McKinsey.com.
[12] IMF Guidance Note, Use of Technology in Tax Administration, March 2017

implementation of new modern technology in the administration digitalisation. Infrastructure management and orchestration plays a pivotal role. Therefore regular infrastructure audits will be useful in identifying process improvements. This will also assist in improved security and control over data.

- A pilot project may be used for digital reforms by inviting volunteers from the taxpayer community. This would help to ascertain trouble shooting through trial and error, followed by full rollout.

- Machine-consumable rules have the power to transform the process of designing and drafting rules.
  Country example: New Zealand introduced the Better Rules concept whereby Better Rules can potentially establish a constant real-time feedback loop between decision makers and the public. This enables lawmakers to make improvements to laws in a more agile manner.

- **Effective use of Data and Advanced Analytics**

  - Data is a key element for designing and implementing public policies. Use of "big data" and data analytics could assist in efficient decision making and improve public policies.
  - A data strategy can reduce dependence on the data provided by taxpayers or businesses by capturing data independently from various sources such as banks, utilities, businesses, other government entities or through devices (e.g. cash registers, gas pumps or IoT devices).
  - To create such a fully-rounded holistic taxpayer view requires tax administrations to have the following in place:
    - Data platform. A cornerstone of a tax administration's operations needs to ensure the elasticity of the infrastructure at minimum cost. It should include modern tools, such as the cloud, in order to enable data collection and real insights. Scalability is also important for required process and storage capacity following the seasonality of tax events (e.g. tax declarations, VAT declarations) and for the exponentially growing data collected by tax administrations.
    - Data standardisation and optimisation. A data-enabled tax administration exchanges information with other authorised stakeholders not only in batch mode, but also in real-time with Application Programming Interfaces (APIs). API management, as a turnkey solution, enables the quick creation of secure, consistent and modern API gateways for existing back-end services hosted anywhere. It also protects against abuse and overuse.
    - A customer relationship management (CRM) platform. CRM solutions help manage the taxpayer relationship from registration, helping tax administrations build personalised experiences across all citizen touchpoints by harnessing contextual data[13]. This leads to a complete view of citizens and the ability to draw actionable insights that can deliver personalisation at scale.
    - Conversation-as-a-platform and BOTs. CRM can be extended to taxpayer service AI, providing intelligence built on deep reinforcement learning. These learning capabilities provide frictionless human-like conversations which enable contextual dialogue. The outputs include a taxpayer-facing virtual agent that could be implemented via a bot framework across many experiences such as Skype, Messenger, or other chat implementations and could answer questions, assist taxpayers with online forms, and automate processes. It is important that any answers or recommendations adhere to tax law per jurisdiction so as not to misinform taxpayers. The tax authority would also need to take responsibility for any technology risks.
    - Personalised experiences. Customised experiences increase the value to each taxpayer by delivering consistency and to-the-point communication at any channel. This requires a 360° view of each taxpayer and stakeholder that can easily be accessed and intelligently complemented.

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[13] European General Data Protection Regulation

- AI applied to the above platforms will not only enable better interaction, but will also provide cross-stakeholder insights which anticipate needs and optimize policies and initiatives.

- The Advanced Analytics provides more advanced selection systems. Fewer cases will be selected for a field audit. Furthermore, ML can also be built with algorithms to predict factors for successful audits, that lead to better compliance. This would be a win-win for both tax administrators (spending their audit time on tax vulnerable payers) as well as the majority of the compliant taxpayer community (by not undergoing the burden of a tax audit).

- Big data predictive modelling enables the identification of those not likely to file individual tax returns and enable capture of lost tax revenue. It also assists in facilitating real-time controls. Real time data would avoid obtaining information from taxpayers and would help with efficiency.

- ML systems can help data scientists identify which ML model is to be used to detect the most relevant patterns in VAT data. ML and AI are also highly dependent upon the accuracy and consistency of the underlying data. This must be considered not to generate significant false positive scenarios.

- It is important to note that real-time reporting may not be conducive in situations where data may be of poor quality. In these instances, real-time transmission may provide poor data, which would have been corrected with delayed transmission (i.e. quarterly or annual reporting)

- Notwithstanding, tax administrations should not switch to new technologies such as big data, block chain etc., without fully understanding the system and the potential ramifications that may arise in over-enthusiastic approaches. Light touch approaches should be made instead of full blown audits in order to ensure that taxpayers are not burdened unnecessarily.

- **Regular Process improvement**

  - This can be achieved by having a dedicated monitoring centre to ensure uninterrupted operations.

  - AI, robotics, chatbots and other latest new technologies can be introduced within the tax administration to make the process more user-friendly. Tax administrations should stay on top of the technological race and keep pace with the dynamic digital economy.

  - Regular upgrading of administrative capacity and application of latest technology in tax administration would also be useful.

  - It is important to identify, assess, mitigate and review risk management procedures on a regular basis.

  - Tax administrations need to be agile to respond quickly to dynamically changing environments within and outside their borders. They should respond to uncertainty, adapt to unforeseeable and rapidly changing circumstances, and withstand short term challenges without compromising the future.

  - Efficient and effective tax administration relies on the good use of information, and successful tax reform similarly depends on the good use of information. Digitalisation assists countries to manage taxes better and have an efficient control. Additionally, tax reforms are also possible based on the information obtained.

- *Tax officers upskilling*

  - One of the common criticisms or impediments in the digitalisation of tax administrations is the skill level of the tax staff. It is possible that the perspective/approach of some tax officers with

respect to change may present challenges in embracing or upskilling to work with the latest technology. Therefore, tax administrations should focus on training and empowerment through certifications, as well as exchange programmes from other jurisdictions. Typically, there is a short term cost related to retraining, turnover and a required increase in headcount required to make a successful transformation for both tax administrations and tax payers.

- In particular, when legacy systems are still in use and there is a transition towards new technology, it is imperative that a proper change management support function exists during the transition phase (eg. knowledge repositories through videos, workshops, games etc.)

- Additionally, for many developing economies, there is a scarcity of tax staff. In such cases, technology can assist in increasing efficiency by using predictive models. The models could help operational staff to better determine their priorities, which would lead to increased recovered amounts of debts, despite limited resources.

- Sharing best practices and experiences by tax administrations, or developing programmes together (such as the Fiscalis Program 2020), in various states could help in building new patterns for compliance and control and lead to increased benefits in terms of additional revenue.

- When a tax administration undertakes a digitalisation project, it is also good practice for the project to be overseen by a Steering Committee. The Steering Committee can act as a guide and monitor the implementation progress and provide solutions on troubleshooting during the digitalisation process.

- Also, new technology such as advanced analytics could be useful to understand key drivers of employee motivation and tailor the new programme accordingly. The motivation and skills of tax administrations' officials could be useful in exploring innovative ideas for implementation and control of these systems. These initiatives are all the more important when resistance to change is shown in bureaucratic economies where there is an inherent apprehension among tax administration employees that technology will replace their jobs.

In conclusion technology can help modern tax administration to build a capable and motivated workforce by empowering their employee:
- New ways of working: Mobility and security are key enablers for "anytime, anywhere" access to the working tools. Flexible work schedule is a high incentive for women and other workers who may need flexibility. Having best in class tools may motivate the public worker. Their value in the labor market grows compared with the commercial sector.
- Roles evolve from less fulfilling mechanical work to incorporate more challenging tasks powered by citizen centric systems, that integrate information from multiple sources and allow personalisation of services. At the same time, leveraging AI (chatbot assistants) to take over repetitive and time-consuming tasks will free time for value add services.
- Develop new skills based on insights and put to use the power of Advanced Analytics, ML and AI.
- Greater responsiveness and collaboration: This can be enabled via teleconferences, knowledge base platforms, virtual team workplaces, employees intelligent portals, social media tools inside organisations, mobile applications, etc.
- Ongoing education: eLearning tools as well as experts communities that can be reached at all times online via communication and collaboration tools.
- Performance management tool: talent management tools, performance dashboards and gamification tools that help increase workers' motivation and their focus for better quality of service.
- Build a culture of citizen voice: implementing feedback mechanisms and tools that show the impact of work of government employees into the satisfaction and trust of citizens would contribute to the improvement of the quality of service.

- **Lean Management Principle approach to be deployed for digitalisation**

    - The Lean Management principle is a popular method deployed by manufacturing organisations. The tax administration can deploy the lean management technique for the digitalisation process.
    - The Lean Management Principle aims at:
        - Delivering value to the customer (the taxpayer in this regard)
        - Eliminating waste and variability as well as enhancing value and flexibility
        - Continuous Improvement (the balance of improvement against technology platform changes, given the breadth of taxpayers and tax administrations impacted).

    - The Lean Management Principle can enable the administration with an approach from problem solving to solution identification.

Enhance compliance via digitalisation

Public trust in the tax system is vital to any well-functioning society and growing economy. Most businesses comply fully with all applicable tax laws and regulations, recognising the obligations of governments to protect a sustainable tax base. With the rapid pace of digitalisation, transparency, open dialogue, and cooperation between tax administrationss and business are all the more important to contribute to greater compliance and a better functioning tax system. It is important for tax administrations to operate under the presumption that taxpayers are honest and acting in good faith, unless the contrary is proven. Tax administrations should not view all taxpayers as tax avoiders or evaders, and should ensure that the tax system is administered fairly, honestly and with integrity.

The principles of fairness and due care/proportionality should be core principles for the tax administration, which would be useful in encouraging enhanced tax compliance.

Some recommendations to consider in the context of enhanced compliance are noted below:

- ***Compliance adaption timelines*** – For both initial implementation and subsequent changes, authorities should communicate specifications and implementation timelines to the market to give the private sector enough time to design and implement requirements in such a way as to maximise the savings potential of business process automation. Compliance deadlines should be realistic, and they should consider the compliance capabilities of different taxpayer categories, as well as the availability and cost of technology solutions for affected taxpayers. Digitalisation systems should ensure availability of end-to-end testing by taxpayers with non-production invoices.

- ***Clear and exhaustive guidance*** – Digitalisation systems should be introduced with technical, legal and process guidance for taxpayers that is complete and available in at least one international language. Refinement of such guidance during initial implementation by taxpayers should be avoided, but where unavoidable such refinement should be equally clear and issued promptly.

Enhance taxpayer service via Digitalisation

Taxpayer services can be enhanced through digitalisation, using tools that allow taxpayers to better and more efficiently comply with tax laws, e.g. the advanced AI based software "ALEX" used by the Australian tax administration), or databases which allow taxpayers to access data that is critical for complying with tax law. This includes availability of sources of tax law online (law, regulations, administrative guidance etc.), as well as databases that provide information that would be helpful for taxpayers (eg compliance with European VAT regulations).

- **Simplification**
    One of the primary questions tax administrations should pose regarding digitalisation is whether the digitisation efforts match taxpayer expectations. Seamless user experience and constant

improvement is a key part of tax administration digitalisation.

A narrow tax gap and high compliance are some of the key success attributes for a tax administration. Simplicity in digitalisation should be a fundamental factor for tax administrations. Returns and payments require significant efforts from the taxpayer and from the tax administration. Therefore, smooth processing reduces costs to the tax administration, reduces risks to the flow of tax revenues, and increases certainty with the taxpayer, which improves the perception of fairness among taxpayers as well as facilitates voluntary compliance. The interface design should be focused on key interactions and end user experiences.

The quality of interaction between governments and the taxpayer would be a key determinant for the country's potential for tax growth and also for sustainable development. E-filing and compliance mechanisms should reduce tax compliance costs for taxpayers. Furthermore, the filing forms should be standardised, user friendly, simple, and less prone to errors and bureaucratic interference. The likelihood of reducing compliance costs is reduced with robust tax filing systems. This in turn will have a better potential for economic returns as businesses can focus on business and direct their efforts on more economically productive activities. Additionally, the system should take into account user feedback and observe the interactions for better functionality.

▪ **Integrity and reducing corruption**
  The sharing of information via digitalislation helps reduce the human interaction between taxpayers and tax administrationss and could also reduce opportunities for corruption.

  ▪ For example, in an effort to combat corruption and to enhance the trust quotient between the tax administration and taxpayer, a country in Asia recently introduced faceless and jurisdiction free tax audits as part of its digitisation process.

  ▪ Tax audits are being referred to as '*faceless*', as they eliminate the physical interface between the assessee and the assessing authority, replaced by an electronic interface in the conduct of assessments via the 'e-proceedings' utility of the e-filing portal of the revenue authority website. The review and examination of the assessment orders use an 'automated examination tool' by means of an algorithm for standardised examination of draft assessment orders, with suitable technological tools, including AI and ML, with a view to limit the scope of discretion.

  ▪ *Jurisdiction-less Assessments*: These assessments are being referred to as *'jurisdiction-less'* as they are conducted by a Team/Group of Expert IT Officers at multiple-level assessment units, namely the National e-Assessment Centre (NeAC), Regional e-Assessment Centre (ReAC), Verification Unit, Technical Unit and Review Unit, and are not conducted by an individual jurisdictional Assessing Officer. The cases are assigned by NeAC to an assessment unit in any ReAC based on an 'automated allocation system' using an algorithm for randomised allocation of cases, by using suitable technological tools, including AI and ML and as such would be location agnostic. These measures are introduced to enhance trust between the tax administration and the taxpayer. Consistency in interpretation of the data set, as well as adherence to existing data protection/privacy regulations are important parameters to consider in this context.

It is important to bear in mind, however, that as ML and AI is not designed for full testing of accuracy, assessments may still require human review and judgment.

Furthermore, another aspect to be considered in the faceless digitalisation regime is the pattern for tax officials to combat corruption. The Asian Development Bank in its Governance Brief[14] suggests that certain patterns be made to identify tax officials who tamper with the process to illegally assist tax evaders. Patterns could be i) manual intervention made on a default return; ii)

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[14] Tax Administration Information Systems -Concept, Design, and Implementation, Issue 36, 2019

the same tax officer being assigned for the same taxpayer for a defined period; iii) application accepted without proper documentation; iv) manual overriding; v) case opened without risk analysis etc.

- **Better technologies for a better taxpayer service**
  The digitalisation of tax administrations should be modelled with a no-surprise approach. The system should provide certainty and clarity through transparent rules. The tax administrations should organise frequent workshops and seminars and engage in an open dialogue with the taxpayer community. The digital interface should be kept up-to date with relevant topical issues and guidance material.

  Real time feedback: Digitalisation should allow for taxpayers that are the end users to participate directly in the design and delivery of their services. Participation in these areas also improves the trust between the taxpayer and the tax administrations. Real time feedback and implementation can add goodwill to the tax administration. The tax administrations can identify the root cause of issues and resolve them more efficiently, thereby paving way for easy access to tax services.

  Use of latest technologies such as process automation can assist the administration in resolving issues on basic queries in the form of emails, web chats etc. Using automation, inbound service inquiries are automatically processed and tagged by issue. Furthermore, the algorithms could also assist in analysing trends, prioritise communications efforts, and identify training needs for taxpayer service representatives. These algorithms provide a higher degree of rigour and consistency in managing and improving the flow of information to and from taxpayers.[15]

- **Digitalisation of dispute resolution mechanisms**
  Tax administrations still undertake manual processes for recourse actions that are available to taxpayers on their appeals. Digitalisation should be in a position to support the objections and appeals function by providing access to taxpayer account information, tracking the status of objection and appeal cases, and registering the results of appeals. In addition, the e - tax system can allow for the electronic filing of objections and can provide online information updates to the taxpayer with regard to the objection process without physical interaction with the taxpayer (e.g. Austrians FinanceOnLine).

- **Accountability & Provide Data Only Once**
  IT improvements can enable the tax administration to achieve its long - term strategic goals. It can be effective and efficient in collecting the right amount of tax from the right taxpayer at the right time and do so with minimal intrusion in the taxpayer's business. Further, it can ensure a level of uniformity in the application of the law, taxpayer satisfaction, and voluntary compliance. It is important that adequate governance arrangements are in place.

  In addition, it is usually unclear who in a tax administration is responsible for coordinating with private sector third-party providers to create seamless experiences for a segment, or who will oversee this transformation and be responsible for monitoring and improving the customer experience over time.

  Tax administrations should aim for the **'provide data only once'** principle wherein information is sought only once by the government and should only ask for commercially available information. Therefore, it is important that other public administrations are also a part of the system. Estonia's X Road which integrates different government and private databases is a case for emulation which helps in the data only once principle and greatly saves taxpayers' time.

- **Tax legislation compatibility with machine readability**
  With coding legislation on a real time basis, some expected benefits idenfitied by the New Zealand Government,[16] for example, include:

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[15] Mckinsey& Co Report, *Four innovations reshaping tax administration*, Public Finance, 2018
[16] See www.digital.govt.nz/dmsdocument/95-better-rules-for-government-discovery-report/html.

- faster and better delivery of policy intent through integrated policy and service design
- reduced risk from misinterpretation of rules
- communication of rule changes simultaneously for all systems relying on those rules
- early error correction, modelling and testing of outcomes, better cross-system rules management
- accountability of public and private implementation and decision-making
- incorporation of third parties as part of a government services ecosystem, [although it is important to consider the related risks and security concerns with respect to the inclusion of third parties] .