DIGITALISATION AND THE CHALLENGES FOR AFRICAN ADMINISTRATIONS

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Abstract
While assessing the recent reforms in the area of digital taxation within the African countries, the article revisits the question of whether there is need for tax policies and further infrastructure to manage and collect Africa's own share of the much-needed revenue in this era. The article did a country by country analysis of proposals, public announcements and legislation implemented on digital taxation of direct and indirect tax in the digitalised economy by African countries. The article then benchmarks the proposal, public announcements and legislation implemented so far by African countries with the work of the international organisations. It considers the implications of digitalisation for taxation in different tax authorities in Africa. The digital age is transforming everything, the nature of markets and products, how to produce, how to deliver and pay, the scale of capital to operate globally, and human capital requirements. It is also boosting productivity, exposing companies to new ideas, technologies, new management and business models, and creating new channels of market access and all of this at relatively low costs. The digital economy is key to finance sustainable development through increase in tax revenue collections. The provision of social protection, infrastructure and basic services such as education and health care is crucial for development. Sustainability requires that the means to finance these public goods and services should come, as much as possible, from the government's own resources, that is, tax revenue. This explains the close link between taxing the digital economy and using the revenue to finance development. The specificities of the digital sector and the required tax legal landscape in the African States is also assessed. The article makes policy recommendations for further tax reforms in order to manage revenue collection in the digitalised economy.

Key Words: *Development, digitalisation, finance, tax administration.*

1. INTRODUCTION

A series of new businesses are emerging at an unprecedented speed and scale. In particular, online transactions of goods and services, or e-commerce, have been exponentially increasing, both domestically and internationally. While these new businesses are benefiting many people, new global challenges are emerging in such areas as consumer policy, science, technology and innovation, industry and entrepreneurship, insurance and private pensions, financial markets, fiscal

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affairs, and taxation (OECD, 2017). Among these, the tax implications of a digitalised economy are perhaps the most urgent issue for policy makers, governments, civil societies and international organizations. Global digitalisation is prevalent in almost every aspect of our daily lives. Multinational Enterprises (MNE), through our ever shrinking “global village”, are expanding across many tax jurisdictions and generating profits in manners which current international tax principles simply are not equipped to handle and Africa is no exception.

Digital companies such as Facebook, Netflix, Amazon, Uber and Google continue to invest significantly across the African continent. Many tax administrations around the African continent have shifted their focus to effective taxation of digitalised companies who until recently have had issues on where (or whether) to account for profits, not always having “fiscal justice” in mind (Bruno Le Maire, 2019, Craig Kirsten, 2019). The evolution of business models in general, and the growth of the digitalised economy in particular, have resulted in non-resident companies operating in a fiscal jurisdiction in a fundamentally different manner today than at the time international tax rules were designed. For instance, while a non-resident company has always been able to operate in a jurisdiction without a physical presence there, advances in information and communication technology have dramatically expanded the scale at which such activity is now possible (OECD, 2018, 2019).

The influence of the digitalisation era on the everyday life and activities of people has caused the phenomenon of "digitalisation disruption". It means that the digitalisation era inevitably changes the way organisations transact and how tax is administered, how economies operate, causing the disruption or interruption of traditional business models. This, in turn, necessitate changes in tax policies and infrastructure in order to manage this era and these changes that are not always simple and painless but happen inevitably, regardless of whether we are dealing with production, banking or the provision of services (Marija Vuković, 2018).

To understand the challenges of tax administration in the digital economy and its impact on finance and development, key stakeholders in the administration of international tax in this era were interviewed. The interviewees included government officials drawn from the revenue authorities, civil societies as well as the ministries of finance in African countries such as Kenya, South Africa, Malawi, Uganda, Nigeria, Rwanda, Namibia, Zambia, Ivory Coast, Botswana and Zimbabwe. A total of 27 persons were interviewed. The interviews were conducted at the Africa Tax Administration Forum (ATAF) high level tax policy dialogue in Zimbabwe and 5th Annual Africa Tax Research Network (ATRN) conferences in Senegal, where a number of tax official were gathered. The choice of the interviewees was based on their involvement in taxing the digital economy for their respective countries, with only persons who are/have been involved being interviewed. The interviews were semi-structured to guide the conversation, with a focus on the challenges of taxing the digital economy, the legislation in place and what is being done to contain those challenges. The article determined the research questions, identified data through desktop research and interviews, evaluated its relevance and credibility before the data was analysed.

In light of the above, the article is structured as follows, the section two discusses the effect of digitalisation on tax administration globally and administration of direct taxes such as corporate taxes and indirect taxes such as VAT/GST in the digital economy, a country by country analysis of African countries on their preparedness to collect its own share of revenue is also discussed. Section three deliberates on what is being done by international organisation such as EU, OECD and G7 countries to tax the digital economy. Section four discusses the tax challenges arising from the digital economy and the implications of digitalisation for taxation are discussed in section five. Section six gives recommendations of what needs to be done for Africa to collect its own share of revenue in the digital economy and finance its own development. The article then concludes.

2. AFRICA TAX ADMINISTRATION WITHIN THE DIGITALISED ECONOMY

The effect of digitalisation on tax administration globally is significant and has major consequences for tax authorities in Africa. The borderless nature of digital economy produces specific administrative issues around identification of businesses, determination of the extent of activities, information collection and verification, and identification of customers. Physical borders of a country were used as the determining factor, and hence these jurisdictions were easily identifiable. With the introduction of the Internet, these physical borders were, however, eliminated and the question arose among tax authorities/administrations as to who may collect the taxes. The major concern regarding the tax predicaments that are currently faced in the digitalised economy is the pace at which new inventions and business models are emerging.

Tax administrators mainly in Africa have not identified effective and efficient means of administration within the current digitalised economy whilst new challenges from a tax perspective are emerging daily due to new technological inventions and business models by major technological companies. The digital transformation of the economy calls into question whether the international tax rules, which have largely been in place for most of the past so many years, remain fit for purpose in the modern global economy and if Africa tax administration can effectively use them to collect their own share of revenue in this era and finance its own development. While good progress has been made in tackling base erosion and profit shifting through the BEPS Project, some of the more fundamental tax challenges posed by digitalisation have remained unaddressed. Through the BEPS Project and more recently, through the Inclusive Framework on BEPS, discussions on how to address the tax challenges that arise from digitalisation have been ongoing. Recent international efforts to address these issues have highlighted the divergent positions of many jurisdictions (OECD, 2019).

While the introduction of unilateral measures in a number of countries has underscored the urgency of the issue and the need to re-assess some of the key international tax principles, these divergent positions have made a consensus-based solution difficult to achieve. In a significant advance, the 128 members of the Inclusive Framework where Africa is not fully represented with only 24 member countries from Africa as of 2019, have recently agreed a policy note "Addressing the Tax Challenges Arising from Digitalisation" (OECD, 2019a), that identifies concrete proposals in two pillars to explore and which could form the basis of a global, consensus based solution. These pillars involve the re-allocation of taxing rights among jurisdictions and the need to address remaining BEPS issues. This policy note will be the basis for detailed analysis over the next few months till the end of 2020 as the Inclusive Framework works towards delivering a solution to the G20 by the end of 2020 (OECD , 2020). In its final report on "Addressing the Tax Challenges of the Digital Economy" in 2015, the OECD acknowledges that challenges arise in both direct and indirect taxation (OECD, 2015).

There seem to be two major challenges in collecting direct taxes in African tax administrations, in particular corporate income taxes. First, digital firms are able to access foreign markets without incurring a taxable nexus according to prevailing, traditional standards for example by a local subsidiary or sufficient physical presence to establish a permanent establishment. Second, digital firms such as Google, Netflix, eBay, Facebook, Twitter and YouTube presumably engage in more aggressive profit shifting activities since they rely on mobile and intangible assets to a greater extent than traditional firms. As a result, the report identifies BEPS to be intensified. The major indirect tax challenge is that highly digitalized businesses are able to locate their point of sales in low-tax consumption jurisdictions to minimize their VAT/ GST whenever consumption taxes are levied based on the origin principle, that is to say the tax liability arises in the country where the provider of digital services or goods is located (OECD, 2015).

Despite the huge financing requirements, effective tax administration to support sustainable development need to go beyond revenue mobilization and fully leverage the potential of tax administration as important tool of governments to guide the private companies in the digital economy, influence social and economic outcomes and deploy incentives for the public good. Tax administrations in the African region need well-conceived tax administration options that prioritize the unique challenges they face in the digital economy, anchored on a better understanding of local tax administration experience. Those tax administration options must reflect a multidimensional vision and use the capacity for leverage to secure social and environmental outcomes for sustainable development. The next section discusses challenges for indirect taxes such as VAT/GST arising from the digital economy and the impact on finance and development.

2.1 Indirect taxes: VAT/GST

This section discusses challenges for indirect taxes such as VAT/GST that are arising from the digital economy, what African countries have done so far in order to collect indirect taxes in the digital economy and how they are affecting finance and development. The global economy has changed dramatically over the past number of years. Rapidly evolving technologies have disrupted and transformed traditional business models to the point that the "digital economy" can no longer be viewed as separate and distinct from the "traditional economy". Indirect-type taxes such as VAT/GST have not been immune from this disruption. One of the most daunting challenges for VAT/GST arising from the digital economy is whether governments can tax cross-border supplies that are delivered remotely by a supplier who has no physical presence in the customer's jurisdiction in order to maximise revenue collection.

The main VAT/GST challenges related to the digital economy that were identified in the 2015 BEPS Action 1 Report are imports of low-value parcels from online sales which are treated as VAT/GST exempt in many jurisdictions, and the strong growth in the trade of services and intangibles, particularly sales to private consumers, on which often no or an inappropriately low amount of VAT/GST is levied due to the complexity of enforcing VAT/GST payment on such supplies. The ever-growing e-commerce based on remote selling poses a threat to indirect tax revenues, as non-residents fall outside the consumption tax system. To address these challenges, the OECD's Action 1 Report recommends that countries apply the principles of the OECD's VAT/GST Guidelines, which allocate the VAT taxing rights to the destination country regarding the digital taxation of e-commerce activities (Eli Hadzhieva, 2019 pp 89-91).

Contrary to the expectations that the implementation of the reverse charge system allowing the market jurisdiction to collect VAT would result in more efficiency in the area of indirect taxation, businesses complain that inconsistent global VAT/GST rules and non-existent double taxation agreements in VAT matters contribute to uncertainty, add tax administrative burdens and increase potential issues of double taxation (Eli Hadzhieva, 2019 pp 89-91). Some countries' tax basis might increase significantly due to the digitalisation of the economy and that developing countries' tax base might erode especially for the African countries. From a VAT perspective, OECD has recommended that tax authorities may collect taxes in the jurisdiction where consumption takes place. As at end of 2019, few African countries had amended their VAT Acts in order to accommodate digital services. The table below provides a country by country overview of African countries which have amended or are in the process of amending their relevant VAT legislation in order to collect tax revenue in the digitalised era.

Jurisdiction	**Action taken / proposed action to be taken**	**Implementation / Announcement date**
Algeria	Effective January 1, 2020, Algeria expanded the scope of its VAT law to include sales of digital services, which are subject to a reduced rate of 9 percent. However, the law does not impose a registration requirement for non-resident providers (KPMG, 2020).	12 December 2019
Cameroon	The sales of goods and services to businesses (B2B) or individual customers (B2C) in Cameroon through foreign or local e-commerce platforms shall be liable to VAT. The VAT registration requirement applies to all operators of electronic commerce platform with respect to each transaction (KPMG, 2020).	17 January 2020
Ghana	Effective January 1, 2014, Ghana requires non-resident vendors of digitalised services to consumers in Ghana to register for and collect VAT (KPMG, 2020).	2013
Kenya	16% VAT is levied on all digital services supplied by foreign suppliers to Kenyan residents (Grant Thornton, 2018).	2 September 2013.
	VAT is now applicable to sales made through a digital market place. In addition, Kenya expanded the requirement to self-assess VAT under the reverse charge mechanism to non-VAT registered recipients of taxable imported	1 January 2020.

	services (KPMG, 2019).	
Morocco	The Moroccan tax code states that any service used or rendered within the Moroccan territory is subject to Moroccan VAT. For digital services, the VAT rate applicable is 20% (Deloitte, 2019).	2019
Nigeria	In May 2019, the head of Nigeria's tax agency, Babatunde Fowler, disclosed that the Government is considering soon introducing an obligation on financial institutions processing payments for online transactions to withhold VAT (Andersen Tax, 2019).	Public Announcement 2019
South Africa	South Africa requires foreign suppliers of digital services to register as a VAT vendor and pay 15%. A registration threshold of ZAR1 million is required (PWC, 2019).	1 April 2019
Tanzania	Non-resident suppliers of Business to Customers telecommunication services and e-services are required to register for VAT (PWC, 2020).	1 July 2015
Uganda	The Uganda Revenue Authority issued a public notice requiring non-resident vendors of digital services to consumers in Uganda to register for and collect VAT (PWC, 2019).	1 July 2018
Zimbabwe	Effective January 1, 2020, Zimbabwe requires non-resident vendors of radio, television, and digital services to consumers in Zimbabwe to register for and collect VAT (KPMG, 2020).	20 January 2020

The summary of amendments in VAT/GST legislation by very few African administrations indicates that there is no consistency in the treatment of VAT/GST within the digitalised economy, and also illustrates the complexity of tax administration in the digitalised economy and this will have an effect on the amount of revenue that will be collected by African countries. According to (Rabinowitz & Prizzon , 2015) in the case studies conducted on finance and development, progress was associated with rising financial resources (from government revenue and/ or bilateral and multilateral donors and/or households) to the sector and often better targeting, suggesting that financial resources were a necessary condition for the improving development outcomes. If the African tax administration are having challenges in collecting VAT revenue from digital services this will reduce the financial resources, therefore poor development outcomes. Complexities in tax legislation inevitably lead to tax administration challenges and the actual enforcement thereof remains a great challenge.

A lot of work needs to be done for African countries to come up with a unified approach on the indirect taxation of the digital economy in order to have enough financial resources for sustainable development. A number of countries in Africa have no indirect tax legislation in place to tax the digital economy, interviews with officials from Zambia and Botswana at the 5th ATAF ATRN Congress reviewed that, there was no indirect tax policies and legislation to tax the digital economy in their respective countries. If African tax administrations cannot reform and unifies their own tax policies and legislation framework to catch up with the digital era , Africa will not collect its own share of revenue in this era, this will results in poor financial resources and low development outcomes. The next section discusses challenges for direct taxes such as income tax arising from the digital economy and the link between financing through direct taxes and development.

2.2 Direct taxes

Sustainable government finance is key to sustainable development. After all, the provision of social protection, infrastructure and basic services such as education and health care is crucial for development. Sustainability requires that the means to finance these public goods and services should come, as much as possible, from the government’s own resources, that is, tax revenues. This explains the close link between direct taxes and development. For several reasons, developing countries have difficulty collecting direct taxes adequately in the digital economy. If developing countries were able to collect sufficient tax revenues, they might be able to increase their independence. The reason is that they would need less financing through foreign loans, which reduces debt problems, and they would be less dependent on foreign aid.

This independence would increase stability of the government budget, as direct taxes are much less volatile and unpredictable than aid flows. Collection of revenue from direct taxes in the digital economy could also increase the policy space for governments because of the economic policy conditions frequently attached to foreign aid and loans. Furthermore, enhanced direct tax revenues could strengthen democratic accountability and provide opportunities for cuts in high marginal tax rates in many countries. As at the beginning of 2020, few African administrations had managed to propose or implement digitalisation tax legislation. The table bellows shows a summary of country by country analysis of what some African countries have done and how prepared is the continent to directly tax the digitalised economy.

Jurisdiction	**Action taken / proposed action to be taken**	**Implementation date**
Egypt	In its 2020 draft budget, the Egyptian Ministry of Finance announced plans to strengthen measures for the taxation of the digital economy (Bloomberg Tax, 2019).	Public Announcement 2019
Kenya	Amended the Income Tax Act by listing "income accruing through a digital market place" as income chargeable to tax. It also defines a digital marketplace as "a platform that enables the direct interaction between buyers and sellers of goods and services through electronic means"(Africa Tax In Brief, 2020).	7 November 2019
Nigeria	The 2020 finance act introduced the principle of significant economic presence (SEP) to the basis of taxation of non-resident companies operating in the digital services and e-commerce sectors (Andersen Tax, 2020).	2020
Tunisia	Tunisia introduced 3% digital service tax and 15% withholding tax on payments made to providers of advertising services or intermediaries in return for the provision of such services via the Internet (PWC,2020)	1 January 2020
Zimbabwe	Zimbabwe introduced new rules for the taxation of non-resident e-commerce platforms and satellite broadcasting service providers. Any amount receivable by or on behalf of an e-commerce platform/satellite broadcasting service provider domiciled outside Zimbabwe from persons resident in Zimbabwe shall be deemed to be income from a source within Zimbabwe and subject to tax at a rate of 5% if the revenue exceeds USD 500,000 per annum (KPMG, 2019).	1 January 2019.

A country by country analysis of African tax administrations shows that a number of African countries don't have any meaningful development in terms of preparation for the taxation of the digitalised economy. Only Egypt, Kenya, Nigeria, South Africa and Zimbabwe have direct tax legislation proposed or implemented. This shows how challenged Africa is in terms of proposing or implementing legislation for taxation of the digital economy. A key tax policy challenge for African governments is find the optimal balance between a tax regime that is business and investment friendly in the digital economy, while at the same time leveraging enough revenue for financing development through public service delivery.

Strengthening domestic public resource mobilization is crucial for governments in financing national sustainable development strategies and implementing agenda for sustainable development. The particular role of fiscal revenues in public resource mobilization lies in their greater stability and predictability compared to other sources of long-term finance, therefore if African countries cannot collect tax revenue in the digital economy, Africa will be left with no choice but to use other undesirable sources of finance for development. There is serious need for policy makers to come up with policies and infrastructure to manage this era for Africa to enjoy its own share of revenue. The interviews with tax officials from these countries revealed that even after introducing the legislation, no meaningful collections have been done. In those countries with public announcement, proposals and considerations it is taking a lot of time to come up with a conclusive policies and legislation. The next subsection discusses corporate income tax in the digital economy and the impact on finance and development.

2.3 Corporate income tax

The evolution of business models in general, and the growth of the digital economy in particular, have resulted in non-resident companies operating in a market jurisdiction in a fundamentally different manner today than at the time international tax rules were designed. For example, while a non-resident company has always been able to sell into a jurisdiction without a physical presence there, advances in information and communication technology (ICT) have dramatically expanded the scale at which such activity is now possible. In addition, traditionally for companies to expand opportunities in a market jurisdiction, a local physical presence in the form of manufacturing, marketing, and distribution was very often required.

The digitalisation of the economy has enabled significant changes in the way business is conducted, structured, and creates value. Businesses thrive in countries based on the number of clients and consequent income they earn even though it has no physical presence. In many digital economy business models, a non-resident company may interact with customers in a country remotely through a website or other digital means (e.g. an application on a mobile device) without maintaining a physical presence in the country. Increasing reliance on automated processes may further decrease reliance on local physical presence. The domestic laws of most countries require some degree of physical presence before business profits are subject to taxation. In addition, under Articles 5 and 7 of the OECD Model Tax Convention, a company is subject to tax on its business profits in a country of which it is a non-resident only if it has a permanent establishment (PE) in that country. Accordingly, such non-resident company may not be subject to tax in the country in which it has customers (OECD, 2014)

Undoubtedly, the current framework of international and domestic tax law in place dates back to a time when the use of information technologies by most businesses was far from intense or sophisticated, if even existent (Olbert et al, 2019). Since then, entirely new business models and companies have emerged and are still emerging. One can thus conclude that tax rules are outdated and that the time is right to re-think the current framework and existing rules (Devereux and Vella 2017). Further, as the OECD discusses in the 2018 interim report, digitalization might also bring opportunities for the administration and collection of corporate tax. The interviews with officials from Africa's tax authorities at the 5th ATAF ATRN congress in Senegal revealed that the main challenge experienced by tax authorities in this regard relates to profit allocation and nexus. OECD report in 2018 clearly highlighted the need to re-examine the fundamental building blocks of the international tax regime, that is, when a non-resident's presence in a jurisdiction should give rise to a basis for imposing tax and what that tax base should be in recognition of the changes in how business is conducted.

With corporate taxation, governments attempt to strike a balance between two main objectives which are raising tax revenue from capital income to finance development especially in African countries where the government budget is almost fully funded by tax revenue collections or to redistribute income; and using tax incentives to attract investment in their economies, which may also lead to other sources of tax revenue which are value added tax, pay as you earn and withholding tax. How these objectives are weighted depends on the country's economic structure which includes size and other factors that influence investment decisions and political factors such as preferences of voters, power of other political actors. Differences between countries along these lines make reaching international agreement challenging (WEF, 2019). Difference between the objectives of Africa Tax Administration Forum member countries and

European Union members' countries will always make reaching consensus difficult.

In a system in which many countries have agreed that one unit of income of an MNE should be taxed only once to avoid double taxation, countries have varying preferences as to how the income should be distributed. Countries with large markets, such as most G7 countries (Canada, France, Germany, Italy, Japan, United Kingdom and United States of America), may prefer to have the location of sales play an important role in the distribution. Developing countries which includes a greater portion of African states with many factories with low value added activities and smaller markets, may prefer to have the distribution of the number of employees within an MNE determine how profits are allocated.

Some countries with high value-added activities and many headquarters, especially of companies affected under Pillar 1, may prefer more limited changes. Smaller developing countries and the UN Subcommittee challenge the validity of the value creation principle as a basis for taxing rights. Many governments work through and with international and regional organizations to develop and express their positions. The expansion of business models resulting from the phenomenon of 'scale without masses significantly affects the distribution of tax rights by reducing the number of jurisdictions that can assert that right over multinational entities' profits. Increased reliance on intangible assets within the digitalised economy also proofs to be a significant challenge to the existing tax framework.

Challenges regarding the permanent establishment definition, transfer pricing which is aligned with value creation and the current controlled foreign companies (CFC) rules are all matters currently under consideration by different tax authorities in Africa. Measures to strengthen the management of public finances and, consequently, domestic public resource mobilization, need to acknowledge these different and often structural challenges in trying to collect corporate tax from MNEs in the digital economy. Crucial to the success and effectiveness of fiscal reforms in most developing countries is recognition that the development of administrative and institutional capacities at the national level is a complex and lengthy process, the benefits of which take time to materialize (UNCTAD, 2017).

Corporate taxation plays a key role in developing countries' revenue bases, accounting for over 20 per cent of developing countries' tax take which is used for financing development. This is why tackling the significant tax losses to multinational tax avoidance and evasion, which estimates put in the hundreds of billions of dollars is a particularly important agenda. In addition, the 'race to the bottom' on tax incentives, driven by international tax competition, is eroding the corporate income tax base in many developing countries and needs to be reversed. This is important because the evidence shows that such tax incentives have relatively little impact on investment, but they do reduce revenue to finance development, which is important for private sector growth (Jesse Griffiths, 2018).The next section benchmarks the proposal, public announcements and legislation implemented so far by African countries with the work of the international organisations.

3. INTERNATIONAL ORGANISATIONS AND THE DIGITALISED ECONOMY

This section discusses the work of the international organisation in preparation for the taxation of the digital economy. The OECD has indicated that a final report will be issued in 2020 that will provide guidance on the tax challenges in the digitalised economy. Whether international consensus will be reached by 2020 is still debatable. There is need for African countries to propose and implement legislation that is in line with the work of the international organisations so that African administration can also work with other developed countries towards a multilateral system. The table bellows shows a summary of what have been done by the European Union, OECD and G7 countries in preparation for taxiing the digital economy.

Jurisdiction	Action taken / proposed action to be taken	Implementation date
European Union	**Direct Taxes** – The adoption of the OECD Unified Approach Proposal would result in an overall net gain for the EU as a whole with larger economies, expected to benefit and smaller open economies, seeing a reduction in tax revenues (EU, 2019).	Public Announcement, November 8, 2019
	Indirect Taxes – Allow non-EU business selling B2C e-services with a VAT registration in the EU to use the Non-Union Mini One Stop Shop (MOSS) mechanism (currently such businesses are required to register for VAT purposes in each EU Member State where their consumers are established)The EU now requires non-resident suppliers of low volume consignments (i.e., goods imported into an EU territory) to register for and collect VAT on B2C supplies. In addition, EU-wide rules for intra-EU B2C supplies of goods will change (KPMG, 2019).	Implemented, 1 January 2020

	The EU Council announced a provisional agreement on rules for the exchange of VAT payment data to aid the detection of VAT fraud in the digital economy, which would implement payment service provider record keeping requirements for cross-border e-commerce transactions effective January 1, 2024 (EU, 2020).	Proposed on 8 November 2019
OECD	**Direct Taxes –** The OECD secretariat is working on certain aspects of the Global Anti-Base Erosion Proposal under Pillar Two , specifically on three technical design aspects of the proposal: The use of financial accounts as a starting point for determining the tax base; The extent to which an MNE can combine income and taxes from different sources in determining the effective (blended) tax rate on such income; and Stakeholders' experience with, and views on, carve-outs and thresholds (OECD , 2019)	Public Announcement, November 8 , 2019
	Indirect Tax - OECD published a new report which includes new measures to make e-commerce marketplaces liable for the VAT/GST on sales made by online traders through their platforms (OECD, 2019).	Public Announcement on 22 March 2019
United Kingdom	In the 2019 Budget presented to Parliament, the UK proposed a digital services tax effective April 2020.The two percent tax applies to revenues that are linked to the participation of UK users and that are generated from the provision of search engines, social media platforms, and online marketplaces. The first £25 million of revenue linked to the participation of UK users is exempt. Groups that generate global revenues from such business activities in excess of £500 million per year are subject to the tax (KPMG, 2020).	Implementing date, 1 April 2020

Italy	Italy enacted a digital transactions tax in 2017 which become effective from January, 2019. The tax applies to services provided via electronic means to Italian-resident corporations, government bodies, partnerships, sole proprietorships, and self-employed professionals, as well as to Italian permanent establishments of non-resident persons, subject to a few exceptions. Such services are those provided through the internet or any other electronic network, the nature of which makes the provision of the service essentially automated and accompanied by minimal human intervention and that is impossible to be provided without information technology. The tax rate is 3 percent of the value of consideration paid for the service, net of VAT. Tax is due from both Italian and non-Italian resident service providers that, during a calendar year, perform more than 3,000 transactions falling within the scope of the tax. The service recipient withholds the tax from the consideration payment and remits it to the tax authorities by the 16th day of the month following payment. The service recipient does not withhold the tax if the service provider attests that it has not exceeded the 3,000 transaction threshold during the calendar year (PWC, 2018).	Implemented, 1 January 2019
France	In 2016, France expanded the scope of a pre-existing tax on audio-visual content to include advertising revenue related to video on demand services provided to the customer for free. France imposes a tax of two percent (10 percent in the case of certain explicit or violent content) on the consideration paid which is exclusive of VAT for the purchase, rental, or access to online audio visual content and the consideration paid (including through an advertising intermediary) for the display of advertisements and/or sponsorships linked to a particular online audio visual content. Liability for online services arises if the audience is located in France, without regard to the location, residence,	Implemented, 1 January 2016

	or status of the supplier. Threshold exemptions apply for certain amounts. A taxpayer is allowed a deduction of four percent (66 percent where the audio visual content is created by private users for the purpose of sharing and exchanging among members of a community sharing interests), and only the remaining amount in excess of EUR 100,000 is subject to tax (PWC,2018).	

4. TAX CHALLENGES IN THE DIGITAL ECONOMY

This section discusses tax challenges arising from nexus, data and characterisation in the digitalised sector. These concepts relate to the difficulty to define tax jurisdiction arising from within the digitalised economy, the problem of attributing value to data created by users free of charge and the dilemma on whether or not e-commerce transactions that fall under the category of royalties (Eli Hadzhieva, 2016). The OECD in 2014 categorises tax challenges arising from the digital sector as nexus, data and characterisation.

Nexus is the possibility to conduct business without physical presence. The continual increase in the potential of digital technologies and the reduced need in many cases for extensive physical presence in order to carry on business, combined with the increasing role of network effects generated by customer interactions, can raise questions as to whether the current rules to determine nexus with a jurisdiction for tax purposes are appropriate. Data is the difficulty to attribute value to data generated by using personal information of end-users. The growth in sophistication of information technologies has permitted companies such as Google and Facebook in the digital economy to gather and use information across borders to an unprecedented degree. This raises the issues of how to attribute value created from the generation of data through digital products and services, and of how to characterise for tax purposes a person or entity's supply of data in a transaction, for example, as a free supply of a good, as a barter transaction, or some other way. Characterisation is the creation of new products and new ways of delivery, which make the characterisation of payments uncertain in new digital business models, such as cloud computing, which facilitates storage of data and programmes at external services, and thus saves space on the consumer's own computer.

Although the challenges related to corporate income tax (nexus, data and character) are distinct in nature, they may overlap with each other. For example, the characterisation of payments may trigger taxation in the jurisdiction where the payer is resident or established and hence overlap with the issue of nexus. Similarly, the collection of data from users located in a jurisdiction may trigger questions regarding whether it should give rise to nexus with that jurisdiction, and if so, whether and how the income generated from the use of these data should be attributed to that nexus. It also raises questions regarding how income from transactions involving data should be characterised for tax purposes. The expanding role of data raises questions about whether current nexus rules continue to be appropriate or whether any profits attributable to the remote gathering of data by an enterprise should be taxable in the State from which the data is gathered, as well as questions about whether data is being appropriately characterised and valued for tax purposes (OECD, 2014).

Most of the digital products such as intellectual properties or patents are of an intangible character, hence it is difficult to calculate their value in comparison with physical goods. Moreover, unlike physical goods, they can travel easily across borders. This makes it easy for companies to set up a business far away from their consumers, where the actual economic activity takes place. A number of big technological companies are not registered in Africa but are doing business every day in these states. Traditionally, companies have a physical presence or a nexus in a given jurisdiction, where they are obliged to pay their taxes. Digitalisation eliminates the need for a physical presence or nexus of a company in order to have access to its customers there.

This is a big challenge for African countries since the interview reviewed that a number of Africa tax administration do not have enough resources and revenue officers with enough knowledge to collect their own share of the revenue , this will result in Africa not having enough financial resources to finance its development. Value generated by using personal data in online digital giants such as Amazon, Uber, Netflix, Google and Facebook are ‘hugely profitable’. In most of these companies there is no commodity being produced but the profits are made by advertising as these companies have access to data of their users. Advertisers, who wants to sell their commodities, use social media such as (Facebook , Netflix and Twitter) or search engines (Google) to advertise them, and this is how value creation occurs. Characterisation issues arise from online payments made in digitalised transactions, for instance. As there is no intermediary involved, it is difficult to decide whether a company received payments while carrying on business. In some cases, the payer may be the person, who carried on business.

The other challenge is BEPS in the digitalised sector mainly occur to avoid permanent establishment status in the market country, to escape withholding tax and to eliminate tax in various jurisdictions (Eli Hadzhieva, 2016).MNEs uses complex mechanisms such as the Double Irish scheme to achieve double nontaxation and to generate the so-called stateless income within a multinational group in onshore or offshore low tax jurisdictions. Double Irish refers to a tax strategy employed by multinational companies to reduce their tax liability by shifting profits to a country with a lower-tax legislation. To increase profits, companies, mostly in technology and pharmaceutical sectors, implement the double Irish to take advantage of the Irish system of territorial taxation and absence of transfer pricing.

The double Irish strategy requires two Irish subsidiaries and draws on an exemption particular to Irish taxation law that allows companies registered in Ireland to be taxed where their management is located (Bryan Lowder,2011). The territorial taxation regime permits the Irish subsidiaries to incorporate in Ireland, declare their profits in tax havens, and remain in compliance with EU jurisdiction. MNEs often take advantage of the exceptions provided in Article 5 of the OECD's Model Tax Conventions to avoid PE status. Tax treaties between jurisdictions of the payer and recipient may be abused by treaty shopping to avoid the payment of withholding taxes in the high-tax jurisdiction by means of establishing shell companies in tax havens (Eli Hadzhieva, 2016).

The interviews reviewed that when MNEs do not have PE status in African states it becomes more challenging for revenue authorities to collect revenue. The fact that existing thresholds for taxation rely on physical presence is partly due to the need in many traditional businesses for a local physical presence in order to conduct substantial sales of goods and services into a market jurisdiction formed. It is also due in part to the need to ensure that the source country has the administrative capability of enforcing its taxing rights over a non-resident enterprise which is a big challenge that African tax administration are facing. Taxing the digitalised economy is problematic due to anonymity, difficulty to determine the amount of tax, lack of paper trail, tax havens, companies incurring liability in multiple countries, African tax administration's lack of capacity to identify companies and to manage VAT.Finally, digitalised technologies make it easier to do business across jurisdictions, as well as enabling consumers to access products and services from anywhere in the world, generating challenges in terms of collecting the appropriate amounts of consumption tax.

5. IMPLICATIONS OF DIGITALISATION FOR TAXATION

Several specific issues related to taxation arise as the digital economy grows in size and complexity (A Terada-Hagiwara *et al.* 2019).

5.1 Tax revenue loss

Digitalized economy can result in double no taxation and reallocation of taxable income. MNEs can avoid tax liabilities in several ways including, minimizing the scope of operations and assets to reduce taxable income, avoiding local permanent establishments and exploiting the tax treaty network with developing countries including African countries, which impose generally lower tax rates. This will result in tax revenue loss and failure to finance the requirements of sustainable development in so many African administrations. The need for optimal tax administration that mobilize the desired level of financial resources and promote tax administration frameworks that can minimise tax revenue losses and respond to the inclusive, sustainable and multidimensional requirements of sustainable development at both national and subnational levels, has never been more pressing and Africa should overcome the challenges of digitalisation, collect its own share of revenue and avoid tax revenue loss.

5.2 Missing taxable matters

Current international tax rules allow the source country to tax the non-resident's business profits only if its local presence constitutes a permanent establishment, whether it is a substantial physical presence or a dependent agent. However, in a digitalized world, business can be conducted through a website in the market jurisdiction without any physical presence; even the website servers need not be set locally. Typical examples are online advertising and social network platforms that are done through social media platforms such as Facebook; Twitter and Instagram and search engines such as Google. Furthermore, the digitalisation transformation of business models also challenges the exception clause of permanent establishment rules. Activities traditionally considered as preparatory or auxiliary may become the core business model in the market country. In addition, with advancing digitalised technology, in-person services can be delivered online, allowing a business to avoid creating a permanent establishment in the market country. In summary, the current nexus rules capture only physical presence, with the "digitalised presence" out of reach, even when it is significant. Since business is being conducted without any physical presence, Africa is missing on taxable matters because a number of countries are failing to draft legislation that can tax these big tech companies that are operating in Africa without physical presence this will result in low revenue collection and failure to meet the financial requirements of sustainable development.

5.3 Unclear income characterization

The tax laws in general rely heavily on the categorization of income to determine the rate and means of taxation. With digitalization, it is difficult to clearly distinguish some types of income, especially among royalties, service fees, and business profits. The issue of income characterization is not limited to direct taxation; it also has implications for VAT. In the VAT system, the categorization of transactions and incomes determines the tax rate. Digitalization also challenges traditional tax practices with new business models. Typical examples are the sales of software and e-books, payments for cloud computing services, rental of cloud space, and other technical services.

5.4 Ineffective value added tax collection

Digitalization raises issues of VAT collection, particularly in business to consumer and consumer to consumer transactions. First, the cost of collecting VAT on low value transactions of goods may be higher than the tax revenue collected. Second, the complexity of VAT collection on service and intangible transactions makes taxation of cross border, online transactions difficult. With regard to total government revenues, the tax reform agenda has not lived up to the promise of delivering the revenues that the poorer countries undoubtedly need through replacing trade taxes with VAT and by broadening the income tax base while lowering the rates. Why they have failed is less clear. The most direct explanation is that in many developing countries VAT is harder to collect unless it is collected at the border like a trade tax. Governments that face civil conflict and a variety of other challenges to their authority, in general do not have the organizational capacity to make a successful transition to a more demanding revenue source. With these challenges already in place, African administration seems not to have the capacity to collect enough revenue to finance development in the digital era.

6. RECOMMENDATIONS

6.1. Awareness of what is to be achieved

There are no complete solutions to digitization, but there are a number of unavoidable strategically important steps on the way to the fundamental digitization of tax administration (Marija Vuković, 2019).The major step refers to the need for awareness of what is to be achieved by the African countries and their respective tax administrations. For this, consciousness and clear political will, serious, thorough work and professional preparation is required. The first question is whether tax administration is ready to work on such important issues as: What are the goals of digitization, how to proceed and what resources are allocated for this purpose? Furthermore, how to identify tax jurisdiction, how to control the flow of commercial services on the Internet, and how to identify entities that provide their services on the Internet, and how the revenue is going to be used to finance development?

6.2. Improvements in capacity of tax administration

African countries tax administrations need to ensure that they invest in information technology and necessary digital platform to improve the tax administration in addressing issues like taxpayer filing, payment, and gathering of intelligence and for risk assessment. Further, tax administrations need to invest in retraining the tax revenue officers to equip them with the necessary tools to address the challenges of digitalisation. The challenges posed by the digital economy, as identified by the OECD, are determining the extent of activities, information collection and verification, and identification of customers. These challenges should be addressed in the context of the Africa's ongoing reform of tax administration. Among others, the following characteristics of the Africa's tax administration system should be addressed in the reforms. Reducing reliance on paper tax invoices, which have become incompatible with the digital economy in almost all aspects. Creating a uniform, nation-centric tax administration system to replace the current decentralized system in which the location of taxpayers and businesses generally determines the means and levels of taxation following a subsystem of tax registration and administration. Introducing risk-based management, self-assessment, transfer pricing and international tax departments and tax audits, to improve collection of tax information and reduce compliance costs for taxpayers.

6.3. Active participation in international discussions

Most of the global proposals on taxing the digital economy reduce taxing rights for African countries, therefore, if African countries do not technically articulate their positions in the Inclusive Framework working groups and through the UN Committee on Tax, then African countries will lose once the global rules are developed (ATAF, 2019). A number of African states have not been participating actively in the BEPS Actions and cooperating with the OECD and G20 in various international tax matters. Yet African Administrations, currently does not have their own digital economy-specific tax measures to cope with the challenges, nor have any special tax plans been proposed. The next step for Africa is to either enact domestic and unilateral measures or wait for a global agreement on coordinated multilateral measures which is expected to be finalised in 2020 by OECD. Africa should keep playing an active role in the formation of international consensus on the taxation of the digitalised economy.

6.4. Unilateral interim measures

While internationally coordinated measures are being discussed and finalized, African countries and their tax administration can also explore domestic measures to address the issues arising from digitalization, such as a turnover tax on online advertising. However, any unilateral measures taken should avoid introducing distortions, uncertainty, and complexity; as well as potential conflicts with treaty obligations. The OECD suggests that the interim measures should be compliant with the country's international obligations, both temporary and targeted. They should minimize over taxation; impact on start-ups, business creation, and small businesses more generally; and cost and complexity.

6.5. Value added tax

In response to its growing digital economy, a number of countries have been revisiting their tax system. From 2013 African member states such as Nigeria, South Africa and Tanzania have been implementing major VAT reforms, with VAT replacing business tax across the service industry. African member states have started to apply VAT to most financial services and real estate transactions. Nonetheless, issues remain, such as achieving the right balance in the efficiency and effectiveness of tax collection. For example, some developing countries eliminated the VAT-exempt threshold for cross-border e-commerce imports. This means that small transactions are taxed even when the tax revenue falls below the cost of collection. Furthermore, some of the African countries VAT system does not include a specific registration and collection regime for individual suppliers; thus, VAT is not levied on most of the African countries customer to customer suppliers. Under the Law of E-commerce, it is important for African tax administrations to develop and implement a tax registration system for individual suppliers.

6.6. Human capital development

Although technology seems to be a primary element, one should not ignore the fact that the human factor is very significant. Digitization of this segment of tax administration is possible in several ways: through educating tax officials, recruitment, determination of their regular or special status (tax technologist) and, ultimately, performance measurement and the compensation and reward system. However, before opening the door wide to new competencies and resources, it is wise to evaluate the previous methods and experiences (self-assessment of digitalization capacity survey).

7. CONCLUSION

Digitization of tax administration is a difficult task that requires radical changes in the way it is organized. Digital technology is a powerful tool of management, but tax administration's encounter with this mode of work has often proved to be complex, sometimes unsuccessful. The problem is that tax administration, like any other sector, often wants to create its own electronic management and information system, and a lot of money, effort and technology is spent. The current ATAF member countries in 2019 highlighted digitization as one of the absolute priorities of its program and the 2019 theme for ATAF was Digitalisation. In particular, any "cost and benefit" analysis would probably show that the digitization of tax administration, as much as it costs, is worth it. Therefore, sooner or later, with a lower or higher intensity, tectonic changes can be expected in terms of the practical functioning of the tax system in African tax administrations. The tax administration should adjust and take advantages of the opportunities that comes with digitalisation.

Potential mistakes can happen if the design of information systems is entrusted exclusively to IT experts, without including the personnel of the tax authority or taxpayers (or including them only marginally). Experience has shown that it is not possible to achieve good IT solutions in tax administration without the decisive involvement of its top managers, as well as those for whom IT communications are aimed. IT expects, Tax administrators, Tax policy makers and Tax payers and other relevant stakeholders such as banks should take this opportunity to work together in order for the tax authorities to be able to collect enough revenue in digital economy. Tax administrations should not lag behind in the use of new technologies, but that it should find suitable solutions which would facilitate and secure relationships between taxpayers and the tax authority. Thus, many technical and legal issues will need to be solved, such as checks and protection of electronic signatures, unique taxpayers' e-mail address, fees, etc. It’s an opportunity for tax administrations to engage their responsible ministries so as to get funding for infrastructure and development in order to collect revenue during this digitalisation era.

Digitization does not imply that tax officials need to understand, learn and become operational in terms of the essence of software solutions. Digitization of the tax administration service (submission of tax returns by electronic means and remote control) will enable to change the structure of employees in tax administration. There will no longer be a need for so many staffing officers dealing with paperwork. These employees will be re-qualified and redirected to the provision of services and control of taxpayers, cross-checking assets and combating in the shadow economy. The effectiveness of tax administration with digitalisation requires African countries to harmonize the model of electronic (digital) business and the model of tax control applied by tax administration, which are adapted to traditional business activities and amending the rules on the exchange of information between tax authorities at the international level. A country by country analysis of African administrations reviewed that Zimbabwe and Kenya have a higher level of adaption of global best practises since they have international tax laws for both direct and indirect taxes which are in line with the OECD guidance.

This means the need for intensive cooperation between the tax authorities of different countries in order to effectively prevent the avoidance of tax payments so as to have enough revenue resources to finance development. The rapid exchange of tax information is a necessary means for defining the tax base in the case of cross-border income. This is an effective measure to preserve the sovereignty of state tax bases and to ensure the proper implementation of subjective tax law under international agreements. In addition to the activities that the tax administration should take over, it is also necessary to adjust the tax law to technological challenges (OECD, 2017). This applies in particular to the provisions of international tax law that relate to the delimitation of tax jurisdiction between states. Today's regulations are based on the paradigm of territoriality, according to which the state has the right to tax certain income by source of income or according to the taxpayer's residence. The territoriality paradigm loses influence when it comes to transactions carried out on the Internet.

Digitalised economy is changing traditional business models and facilitates operations at the international level using the Internet. Tax authorities should ensure that all taxpayers pay real taxes. This goal can be effectively achieved only if the risk of tax avoidance is reduced. Digitalised economy forces tax authorities to replace traditional models of tax management with new models that analyse and use large amounts of information available on the Internet and electronic tools for effective co-operation between tax authorities around the world. Tax authorities in many countries find that digitization can make them stronger, faster and better. Digital tools enable tax administrations to be more organized and efficient, both in combating abuse and improving the quality of tax reporting and tax collection.

Although technology seems to be a primary element, one should not ignore the fact that the human factor is very significant in the digitized administration. It is necessary to change the present formally repressive attitude towards taxpayers in the treatment of all key elements of effective tax administration which are providing assistance to taxpayers in fulfilling their obligations (the taxpayer is a client, not the enemy), timely control over fulfilment of obligations, and efficient collection of revenue. In the process of digitalization, tax administrations everywhere are faced with the same challenges in ensuring the efficient functioning and collection of tax revenues and the adoption of international standards.

The digital economy has renewed interest in revenue mobilisation and development. Revenue mobilisation topped the list of action areas in the outcome document that emerged from the 3rd Financing for Development conference held in Addis Ababa in July 2015 (UN, 2015a). In addition, a number of donor countries established the Addis Tax Initiative to support developing partner countries in strengthening their tax systems, in line with the commitments made at the conference so as to manage revenue collection in the digital era. International actors have put forward key arguments for investment in strengthening tax systems in developing countries so as to collect their own share of revenue in the digital economy which includes financing and governance argument.

Developing countries have enormous unmet needs in terms of infrastructure, social protection, the delivery of services and development. As such, it has been suggested that the achievement of the development goals requires an escalation of financial resources 'from billions to trillions and this can be achieved if they manage to administer and collect their own share of revenue in the digital economy. Donor financing, which had started to plateau before the adoption of the development agenda, was never going to be enough to meet the scale of their aspirations. The development agenda, therefore, required a rethink of financing for development in the digital economy. Taxing and collecting revenue in the digital economy is widely championed as a way to fill the gap between the lofty ambitions of the development agenda and available development finance. Tax revenue from the digital economy is the 'largest untapped source of financing to fund national development plans and developed countries needs to collect their own share of tax revenue.

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