THE CHALLENGES IN IMPOSING THE DIGITAL TAX IN DEVELOPING AFRICAN COUNTRIES

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Abstract

This paper addresses the challenges of taxing the digital economy and offers potential solutions towards aligning the digital economy with the tax rules governing traditional businesses in the interim while specific digital tax laws are being deliberated on at a political level. The methodology employed is purely descriptive and explanatory following review of country case studies in regulating the tax challenges resulting out of the digital economy. The literature addressed in the paper focuses on recent government responses in highlighting the problem with taxing the digital economy and identifying what key areas need policy recommendations, which the paper then offers to provide. Although several academic works have addressed the challenges of taxing the digital economy, there has been little systematic description on what policy recommendations ought to be made that would provide an effective template for developing African countries to rely on in enacting their own laws. This paper amends this omission.

Keywords: Digital taxation, digital economy, Africa, value creation, policy measures

1. Introduction

There is a growing global consensus that the digital economy is relatively undertaxed when compared with traditional businesses.[1] Certain inherent characteristics such as reliance on cross border provision of services without physical presence, easy transfers of intangible assets, and

[1] Szczepanski, M. 2018. Interim Digital Services Tax on Revenues from Certain Digital Services. European Parliament Briefing. European Parliamentary Research Service. http://www.europarl.europa.eu/RegData/etudes/BRIE/2018/625132/EPRS_BRI(2018)625132_EN.pdf

novel ways to create value make it particularly easy for enterprises to limit their tax liabilities and sometimes utilise this forum to evade taxation. In order to provide a solution to this problem, domestic states, regional blocs and international bodies have recommended to reform the corporate tax framework and the VAT system to align it with income generating transactions within the digital economy.[2] The latter has been updated in European Member States to consider the changes resulting from digitalization, with a move in particular toward a destination-based system – in other words, the country from whence the income is derived following digital advertising is the proper state to tax such income.

African states, however, are unable to benefit from this system since the bilateral treaties signed with countries whose companies have a digital presence in African markets, for example Jumia and Uber, do not recognize digital presence as a permanent establishment to trigger taxation. Online platforms providing services to users in the form of contacting independent taxi service providers and decentralized financial transactions or money transfers, without physical presence have created a mismatch between tax rules and digitalization. This has resulted in domestic states losing revenue. It has resulted in political differences on the question of which state is to tax income earned through the digital economy. This means that there is a gap in general policy recommendations on taxing the digital economy.

The aim of this paper therefore is firstly, to address the challenges of taxing the digital economy and secondly, to offer potential solutions towards aligning the digital economy with the tax rules governing traditional businesses. The methodology employed is purely descriptive and explanatory following review of country case studies in regulating the challenges posed as a result of the digital economy. The literature addressed in the paper focuses on recent government responses in highlighting the problem with taxing the digital economy and identifying what key areas are in need of policy recommendations, which the paper then offers to provide. Although several academic works have addressed the challenges of taxing the digital economy,[3] there has been little systematic description on what policy recommendations

[2] UN Committee of Experts on International Cooperation in Tax Matters. Tax Challenges in the Digitalised Economy. Fifteenth Session, E/C.18/2017/CRP.22. http://www.un.org/esa/ffd/wp-content/uploads/2017/10/15STM_CRP22_-Digital-Economy.pdf; European Commission. 2017. Towards a New and Definitive VAT System for the EU. Press Release. Brussels. https://ec.europa.eu/commission/news/towards-new-and-definitive-vat-system-eu-2017-oct-04_en

[3] Szczepanski, M. 2018. Interim Digital Services Tax on Revenues from Certain Digital Services. European Parliament Briefing. European Parliamentary Research Service.

ought to be made that would provide an effective template for developing African countries to rely on in enacting their own laws. In an attempt to amend this omission, the paper is structured as follows. Section 2 provides a background analysis on digital taxation in order to draw out its salient features that have made it difficult for developing African countries to subject it to their tax legislation. It also describes the types of digital taxes specific countries apply. Section 3 addresses the importance of taxing the digital economy and identifies the various challenges that pervade issues of imposing tax over income generated while transacting or participating online. Section 4 examines the current tax measures that are Eurocentric in application and in section 5 the paper offers its own policy recommendations for developing African countries, specifically inclined towards Africa.

2. Background Analysis: Digital Taxation

International efforts on digital taxation began in 2013 with the OECD'S base erosion and profit shifting (BEPS) project. One of BEPS actions deals specifically with the digital economy and one of its outcomes has been the March 2018 interim report on *'Tax challenges arising from digitalisation'*.[4] The document shows that there is no consensus among countries on how to adapt international tax framework permanently to the digital era, but that the intention is to arrive at a new global consensus by 2020.[5] The report also discusses the topic of interim

http://www.europarl.europa.eu/RegData/etudes/BRIE/2018/625132/EPRS_BRI(2018)625132_EN.pdf; Jones, B., et al. 2018. Taxing the Digital Economy; The Unilateral Approach. Tax Journal. Issue 1389. https://www.eversheds-sutherland.com/documents/services/taxation/tax-digital-economy-020318.pdf; Li, J. 2014. Protecting the Tax Base in the Digital Economy. Paper No. 9. United Nations Department of Economic and Social Affairs. http://www.un.org/esa/ffd/tax/2014TBP/Paper9_Li.pdf; Van Belle, J.P., and Mudavanhu, S. 2018. Digital Labour in Africa: A Status Report. Paper No. 5 Centre for Development Informatics Global Development Institute, SEED. https://diodeweb.files.wordpress.com/2018/01/digital-labour-in-africa-diode-paper.pdf; Dhalman, C., et al. 2016. Harnessing the Digital Economy for Developing Countries. Working Paper No. 334; DEV Schmidt, E., Cohen, J. 2014. The New Digital Age: Reshaping the Future of People, Nations and Business. John Murray, London, 2014/DOC/WKP(2016). OECD; Aslam, A., and A. Shah. 2017. Taxation and the Peer-to-Peer Economy. IMF Working Paper WO/17/187. http://www.imf.org/en/Publications/WP/Issues/2017/08/08/Taxation-and-the-Peer-to-Peer-Economy-45157; Hadzhieva, E. 2016. Tax Challenges in the Digital Economy. European Parliament. http://www.europarl.europa.eu/RegData/etudes/STUD/2016/579002/IPOL_STU(2016)579002_EN.pdf; Harpaz, J. 2014. Digital Economy Raises Serious Questions for Global Tax Policy. Forbes. https://www.forbes.com/sites/joeharpaz/2014/03/12/digital-economy-raises-serious-questions-for-global-tax-policy/#3d0adc8757ef; Highfield, R. 2017. Globalisation and Digital Impacts in the Region and Some Related Tax Matters. Presentation at the Taxation of the Digital Economy Seminar. Asian Development Bank Institute, Tokyo. 21–24 August.

[4] OECD. 2018. Tax Challenges Arising from Digitalisation – Interim Report 2018. http://www.oecd.org/tax/tax-challenges-arising-from-digitalisation-interim-report-9789264293083-en.htm

[5] OECD. 2018. Tax Challenges Arising from Digitalisation – Interim Report 2018. http://www.oecd.org/tax/tax-challenges-arising-from-digitalisation-interim-report-9789264293083-en.htm

measure turnover taxes, which has polarised countries depending on the expected benefits or losses to their tax jurisdictions. Those in favour consider that there is a sound imperative to act so that the tax paid by digital businesses corresponds to value generated in their jurisdictions. These countries consider that the current situation challenges the fairness, sustainability and public acceptability of the system. Considering the length of time it will take to achieve a global consensus on taxing the digital economy, they believe that more immediate action is needed.[6]

By contrast, countries that oppose the measure consider that there are a number of risks and adverse consequences such as negative impact on investment, innovation, growth and welfare, passing the tax on consumers and businesses, possibility of over-taxation, implementation difficulties and compliance and administration costs. There are currently no Africa Union rules addressing the digital aspects of corporate taxation and there is no revenue-based tax on profits from digital activities such as running an online tax service; for example, the all women online taxi provider, *'An Nisa'* in Kenya.[7] Instead, the digital taxes imposed in specific African states, such as Uganda, Tanzania, Benin, Mozambique and Zambia burden the common tax payer with levies on using social media and paying for license fees for online content creation (Table 1 contrasts between selected African, Asian, Middle East, European and Pacific countries on the unilateral measures taken by their governments in imposing digital taxation). While the European and Asian countries are focused on taxing value, African states have limited their focus on targeting the consumers of the digital economy.

Table 1: Unilateral measures taken by governments in imposing digital taxation

Africa

Uganda	0.5% transaction tax to access social media (social media tax).[8]
Tanzania	Registration and license fees for online content creators.[9]
Benin	5% fee on texting and calls (for using over the top services).[10]

[6] OECD. 2018. Tax Challenges Arising from Digitalisation – Interim Report 2018. http://www.oecd.org/tax/tax-challenges-arising-from-digitalisation-interim-report-9789264293083-en.htm
[7] The Standard, 10 September 2018, *Taxi hailing app strictly for women launched.*
[8] Excise Duty (Amendment) (No.2) Act, 2018
[9] The Electronic Postal Communications (online content) Regulations, 2018
[10] 218 Decree 341-25 of July of 2018

Mozambique	Media fees for local and foreign journalists.[11]
Zambia	Daily tariff rate on internet calls.[12]

Asia/Middle East

Saudi Arabia and Kuwait	Introduced the concept of virtual PE - any services performed for a period longer than the tax treaty threshold (183 days) under cross border agreements between a non-resident and consumers in SA/Kuwait will create a virtual PE.[13]
India	Equalisation levy on online advertising revenue earned by non-resident e-commerce companies introduced in 2016. Tax base is the value of transactions, not the profits.[14]
Taiwan	All foreign businesses that supply digital services to Taiwan residents to pay VAT effective 2017.[15]
Turkey	WHT on payments made through e-business and other online activities effective 2016. Introduced the concept of an electronic PE.[16]
China	Import of retail goods through e-commerce subject to customs duty, VAT and consumption tax.[17]

European/Pacific

[11] Decree 40/2016, 23 July 2018

[12] PRESS STATEMENT BY THE CHIEF GOVERNMENT SPOKESPERSON ON THE DECISIONS MADE BY CABINET AT THE 12TH CABINET MEETING HELD AT STATE HOUSE ON MONDAY, 12TH AUGUST, 2018 https://www.lusakatimes.com/2018/08/13/zambia-slaps-a-30-ngwee-a-day-tariff-on-internet-phone-calls/

[13] EY, Global Tax Alert, Saudi Arabian tax authorities introduce virtual service PE concept. 30 July 2015 https://www.ey.com/gl/en/services/tax/international-tax/alert--saudi-arabian-tax-authorities-introduce-virtual-service-pe-concept

[14] Gupta, S. India: Equalisation Levy – Genesis, Provisions And Interpretation Issues, 11 July 2017 http://www.mondaq.com/india/x/602428/Social+Media/Equalisation+Levy+Genesis+Provisions+And+Interpretation+Issues

[15] PWC. Taiwan Tax Update. January 2018. https://www.pwc.tw/en/publications/taiwan-tax-updates/assets/taiwan-tax-update-201801.pdf

[16] Law on Regulation of Content Published on the Internet (Act No. 5651); Regulation on Content Published on the Internet.

[17] KPMG. China Tax Alert.
China's New Import Tax Polices for Cross-border E-commerce worth the attention of the whole industry, Issue 14, March 2016 https://home.kpmg.com/content/dam/kpmg/pdf/2016/04/china-tax-alert-14-cross-border-ecommerce.pdf

France	2% tax on distribution of audio-visual content introduced in 2016 (referred to as the YouTube tax).[18]
Italy	3% levy on digital transactions based on value of taxable transactions effective 1.1.2019. Less than 3000 taxable transactions exempted.[19]
Hungary	5.3% advertisement tax for entities exceeding HUF100million introduced in 2014.[20]
Australia	3% levy on advertising revenue from 'globally significant enterprises' with annual turnovers of more than AUD1 billion.[21]
New Zealand	Extended the scope of its GST to digital 'remote' services provided off shore.[22]

Compiled by Author

There are specific salient features of digital businesses that are particularly pertinent to taxation challenges. These features have also been highlighted by the OECD and European Commission. Digital enterprises rely heavily on intangible assets, particularly intellectual property, that are often hard to value.[23] Furthermore, user participation, user generated content, network effects (for example, when users are the building blocks of networks) and data collection and mining are common for highly digitalised businesses. While they are precious assets in a digital economy and help to generate profits, it is difficult to value and tax these aspects.[24] While valuing intangible assets is very difficult, they can be moved around the globe

[18] Decree No. 2017-1364 of 20 September 2017 laying down the entry into force of the provisions of Article 30(III) of Act No. 2013-1279 of 29 December 2013 amending the 2013 budget and Article 56 (I) to (III) of Act No. 2016-1918 29 December 2016 amending the 2016 budget, published in issue no. 0221 of the Official Journal (JORF) on 21 September 2017

[19] Law 27 December 2017, n. 205, Bilancio di previsione dello Stato per l'anno finanziario 2018 e bilancio pluriennale per il triennio 2018-2020. (17G00222) (GU Serie Generale n.302 del 29-12-2017 - Suppl. Ordinario n. 62) (reviewed by: Orbitax, The Tax Hub, https://www.orbitax.com/news/archive.php/Review-of-Italy%27s-2018-Budget--29713

[20] Regulations of the Act XXII of 2014 on Advertisement Tax [AT Act], Key Rules on Advertisement Tax, 2017 https://en.nav.gov.hu/data/cms442102/66___KEY_RULES_ON_ADVERTISEMENT_TAX_2017_08092017.pdf

[21] PWC, Tax Transparency in Australia. The current state of play. 29 March 2018. https://www.pwc.com.au/tax/taxtalk/assets/alerts/tax-transparency-australia-29mar18.pdf

[22] Policy and Strategy, Inland Revenue. GST on cross border supplies of remote supplies. May 2016 https://taxpolicy.ird.govt.nz/sites/default/files/2016-sr-gst-cross-border-supplies.pdf

[23] Jones, B., et al. 2018. Taxing the Digital Economy; The Unilateral Approach. Tax Journal. Issue 1389. https://www.eversheds-sutherland.com/documents/services/taxation/tax-digital-economy-020318.pdf

[24] Li, J. 2014. Protecting the Tax Base in the Digital Economy. Paper No. 9. United Nations Department of Economic and Social Affairs. http://www.un.org/esa/ffd/tax/2014TBP/Paper9_Li.pdf

instantaneously in the digital world and this provides opportunities for aggressive tax planning. Although permanent establishment exists, by shifting intangible assets to low tax jurisdictions companies can lower their effective tax rates significantly. Despite recognition of these challenges at the international level, the outcome of the work of bodies such as the OECD has been limited and there is not yet for example even a common understanding of the concept of *'value creation'* in relation to the digital economy. All this creates a challenging disconnect between where the value is created and taxes are paid. In addition, it affects revenue generation in Africa. Hence, the need to explore these challenges becomes imperative.

3. The Digital Economy and its Challenges: Security and Tax Evasion

3.1.The digital African economy

Africa has the youngest and fastest-growing population and labour force of all continents; however, its formal employment figures are the lowest, with a particularly worrying high youth unemployment rate. The human, social, economic and political cost of this situation is staggering and set to increase further unless solutions are found.[25] Of course, the problem is extremely complex and dynamic, and it would be extremely naïve to assume that silver bullets and quick fixes are possible. However, the rise of the digital economy, estimated to grow at between 15% to 25% annually in emerging countries[26] has been fronted by governments, policy makers, researchers, social entrepreneurs and philanthropists as one of the pathways out of the downward spiral.[27] Most African countries have a rapidly growing and therefore a young population but are faced with high employment rates.

[25] Van Belle, J.P., and Mudavanhu, S. 2018. Digital Labour in Africa: A Status Report. Paper No. 5 Centre for Development Informatics Global Development Institute, SEED. https://diodeweb.files.wordpress.com/2018/01/digital-labour-in-africa-diode-paper.pdf

[26] World Economic Forum. 2017. The Africa Competitiveness Report 2017: Addressing Africa's Demographic Dividend. Available http://www3.weforum.org/docs/WEF_ACR_2017.pdf

[27] Page, J., & Shimeles, A. 2015. Aid, employment and poverty reduction in Africa. African Development Review, 27(S1), 17-30.

The World Economic Forum[28] estimates a youth unemployment rate for the continent of 13% (men) to 15% (women), but the actual figures are likely to be much higher,[29] and many Africans have no or little hope of earning a decent wage in the formal sector commensurate with their education. Regrettably, although much of Africa has experienced economic growth, its production structures have largely failed to translate that into employment. Not only are unemployment ratios amongst the world highest, it hits the youth hardest who account for 60% of Africa's unemployed; with 72% of them estimated to live on less than $2 per day.[30] A strong, native and growing digital economy could potentially provide employment to a young and dynamic generation of African digital and gig labourers.[31] Internet connectivity varies hugely in cost, quality and capacity across Africa, but the International Telecommunication Union (ITU)[32] estimates that up to 25% of Africa's population is connected to the internet. About 40% of this connectivity is through mobile broadband and this type of access continues to increase.[33]

The World Bank/Dalberg report on global online outsourcing estimates that, across six of Africa's largest economies alone (South Africa, Nigeria, Kenya, Egypt, Morocco and Ghana), 2 million youngsters enter the job market annually but only 41,000 digital jobs are being created, satisfying only 2% of the labour supply.[34] Many advanced economies already have sophisticated digital economies and have extensively exploited the benefits of digitalisation for their economic prosperity and to improve and facilitate lives of their populations.[35] Developing the digital economy can support inclusive growth independent of the development stage of a country. For example, in less developed economies, the adoption and use of mobile technologies can provide access to basic financial services for anyone, or help rural farmers

[28] World Economic Forum. 2017. The Africa Competitiveness Report 2017: Addressing Africa's Demographic Dividend. Available http://www3.weforum.org/docs/WEF_ACR_2017.pdf

[29] Trading Economics. 2017. Unemployment rates. Available: https://tradingeconomics.com/country-list/unemployment-rate

[30] Ramalingam, B. 2016. Can Digital Jobs Solve Africa's Unemployment Crisis. Institute of Development Studies. Available: https://opendocs.ids.ac.uk/opendocs/bitstream/handle/123456789/8835/RRB13.pdf?sequence=1

[31] Lehdonvirta, V. 2016. Algorithms that divide and unite: delocalisation, identity and collective action in 'microwork'. In Space, Place and Global Digital Work, Vili Lehdonvirta (ed.) (pp. 53-80). Oxford: Palgrave Macmillan.

[32] ITU. 2016. ICT Facts and Figures 2016. Geneva: International Telecommunication Union. Available at: http://www.itu.int/en/ITU-D/Statistics/Documents/facts/ICTFactsFigures2016.pdf.

[33] ITU. 2016. ICT Facts and Figures 2016. Geneva: International Telecommunication Union. Available at: http://www.itu.int/en/ITU-D/Statistics/Documents/facts/ICTFactsFigures2016.pdf.

[34] Kuek, S.C., et al. 2015. The Global Opportunity in Online Outsourcing. World Bank Group Report (with Dalberg).

[35] Dhalman, C., et al. 2016. Harnessing the Digital Economy for Developing Countries. Working Paper No. 334. DEV/DOC/WKP(2016)6. OECD

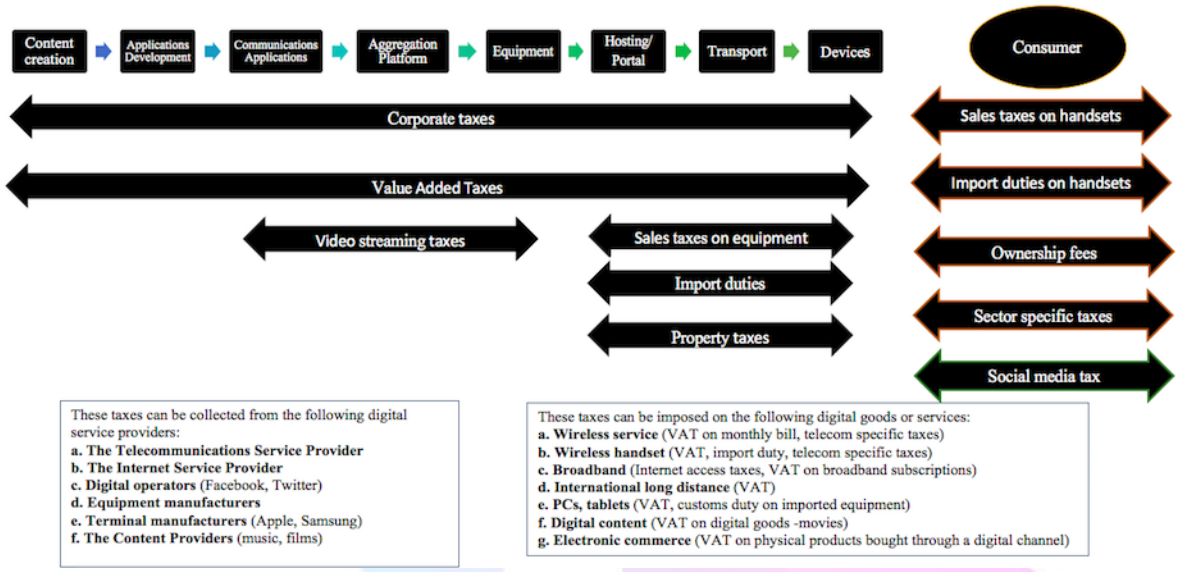
selling their products at appropriate prices. Given the right infrastructure, countries at any stage of development can use digital technologies to accelerate the delivery of broad-based, high quality healthcare, education and government services. The more countries develop and setup the grounds of their digital economies, the more they can move into areas where they become a supplier of digitally-enabled products and services in the contested global digital eco-system.[36]

Further, digitalization can lead to increased productivity and income and therefore higher opportunities for broadening the tax base in countries through different types, such as corporation tax, VAT/sales tax from e-commerce sales, trade tariffs and taxation of the users of platforms for economic activity. Such broadening of the tax base will depend on whether the developing African countries are able to capture the digital values that the various companies are creating. Figure 1 shows the different tax streams that a country can impose on the digital economy. Digitalisation allows more traditional business models (such as the sale of goods/services, i.e. e-commerce) to sell to consumers without the need for physical presence (or at least material physical presence) in the customer jurisdiction. It also paves the way for new business models, based upon user participation, to generate income without making any traditional sales to the user base in question; e.g. social media businesses that generate revenue through advertising sales.[37]

Figure 1: Diversity of taxes that can be collected from the components that make up the digital economy sector

[36] Dhalman, C., et al. 2016. Harnessing the Digital Economy for Developing Countries. Working Paper No. 334. DEV/DOC/WKP(2016)6. OECD

[37] Jones, B., et al. 2018. Taxing the Digital Economy; The Unilateral Approach. Tax Journal. Issue 1389. https://www.eversheds-sutherland.com/documents/services/taxation/tax-digital-economy-020318.pdf



Source: Author

As the Internet *'is at once intangible and in a constant state of mutation, growing larger and more complex with each passing second'*[38], it increasingly leads to the digitalisation of the entire economy. As digital goods are highly mobile or intangible, the physical presence of a company in the market country is often not needed in the digital sector, rendering it substantially different from traditional brick-and mortar businesses. The rise of the digital economy is largely due to the decreasing Information and Communication Technology (ICT) prices and a constant drive for innovation. The spread of ICT tools such as laptops, smart mobile phones and tablets as well as telecommunications networks such as the World Wide Web (WWW) indicates that the digital products are becoming increasingly part of our daily lives.

The digital economy is defined as *'the global network of economic and social activities that are enabled by platforms such as the Internet, mobile and sensor networks.*'[39] Value creation online can be referred to as virtual or digital labour. There are *'blurred boundaries'* between

[38] Schmidt, E., Cohen, J. 2014. The New Digital Age: Reshaping the Future of People, Nations and Business. John Murray, London, 2014.

[39] Li, J. 2014. Protecting the Tax Base in the Digital Economy. Paper No. 9. United Nations Department of Economic and Social Affairs. http://www.un.org/esa/ffd/tax/2014TBP/Paper9_Li.pdf p. 5.

production and consumption in the digital age. This is represented by the amalgam *'prosumer'*, highlighting the weak distinction between consumer and producer.[40] Although one cannot clearly define the boundaries of the digital economy, the transactions in the digital economy can be categorised as follows: *'electronic services, supply over the Internet of services other than electronic services and supply of goods ordered online.'* The digital economy is driven by *'content production, consumption and indexation'.* The monetisation of personal data plays a key role in the digital sector.[41] At the same time, it is a challenge to calculate the value creation in the digital sector as consumers receive services free of charge in exchange for providing data.[42]

The use of big data is another key characteristic of the digital sector, which is now incorporated in every level of international economy. It is a pool of data collected, diffused, aggregated, stored and analysed, which creates value by increasing transparency, improving performance management and decision-making, and by developing tailored products or services or even new business models.[43] Digital businesses can be easily contestable *'as market power can be challenged by entrants more easily and often faster than in more traditional fields of the economy.'*[44] The digital sector is more dependent on intellectual property than traditional brick and mortar business.[45]

The creation of a dominant or *'gatekeeper'* position (usually through patents, which grant control over access to technology and standards) makes it challenging to survive or to grow for new entrants in the market although entry barriers are low. Hence, to avoid disruptive

[40] Huws, U. 2014. The Cybertariat Comes of Age: Labour in the Global Digital Economy. Monthly Review Press, New York, 2014, p. 50

[41] Li, J. 2014. Protecting the Tax Base in the Digital Economy. Paper No. 9. United Nations Department of Economic and Social Affairs. http://www.un.org/esa/ffd/tax/2014TBP/Paper9_Li.pdf, p. 5.
[42] European Parliament Directorate General for Internal Policies. Policy Department A. Economic and Scientific Policy. In-depth Analysis for the ECON Committee (2015) Presentation: Challenges for Competition Policy in a Digitalised Economy, p.21.

[43] Li, J. 2014. Protecting the Tax Base in the Digital Economy. Paper No. 9. United Nations Department of Economic and Social Affairs. http://www.un.org/esa/ffd/tax/2014TBP/Paper9_Li.pdf, p. 26.
[44] European Parliament Directorate General for Internal Policies. Policy Department A. Economic and Scientific Policy In-depth Analysis for the ECON Committee (2015) Presentation: Challenges for Competition Policy in a Digitalised Economy, p.23.

[45] Tax Executives Institute, BEPS Action 1 Digital Economy, 13 April 2014.

innovators, companies have to engage seamlessly in innovation, in other words, new techniques, products, sales channels, customers etc.[46] These key distinctive features in the digital sector also make it easier for digital companies to engage in tax avoidance practices. For example, Google, Amazon and Facebook produce invisible digital products. Like the Invisible Man,[47] these products can be made and moved anywhere on the globe, leaving few traces. This is where the threat to tax systems lies. The term *'cloud computing'* implies this borderless mobility or, as the tax offices would have it, their elusiveness.[48] It is hard to tax invisibles (or commandeer and sell them if company taxes are not paid). It is difficult to contain the cloud or give it a residence for tax purposes.[49]

3.2.The Challenges Related to Taxing the African Digital Economy

The rise of the digital economy should be seen in relation to the Fourth Industrial Revolution. The First Industrial Revolution used mechanization, waterpower, and steam power; the Second Industrial Revolution used mass production through assembly lines and electricity; the Third Industrial Revolution focused on electronics, computers, and automation. And now the Fourth Industrial Revolution is using physical cyber systems, focusing on end-to-end digitization of all physical assets, fusing technologies, and in the process blurring the lines between the physical, digital, and biological spheres.[50] The way in which businesses carry out their global

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[46] European Parliament Directorate General for Internal Policies. Policy Department A. Economic and Scientific Policy In-depth Analysis for the ECON Committee (2015) Presentation: Challenges for Competition Policy in a Digitalised Economy, pp. 6-7.

[47] In HG Wells' The Invisible Man (1897), Griffin the scientist makes himself invisible, but cannot reverse the procedure. In his disappointment, he takes to murder.

[48] Rhode, A.M. 2018. Current Trends in the Taxation of International Digital Activities.

[49] Corkery, J., et al. Taxes, The Internet and The Digital Economy. https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=4&cad=rja&uact=8&ved=2ahUKEwi8r62anuXdAhUSJ1AKHZPtAAcQFjADegQICxAC&url=https%3A%2F%2Fepublications.bond.edu.au%2Fcgi%2Fviewcontent.cgi%3Ffilename%3D0%26article%3D1240%26context%3Drlj%26type%3Dadditional&usg=AOvVaw1EHKXRS5sA0Gc4SIYNeJRd

[50] World Economic Forum (WEF). 2016. The Fourth Industrial Revolution: What It Means, How to Respond. https://www.weforum.org/agenda/2016/01/the-fourth-industrial-revolution-what-it-means-and-how-to-respond/; PwC. 2016. Industry 4.0: Building the Digital Enterprise https://www.pwc.com/gx/en/industries/industries-4.0/landing-page/industry-4.0-building-your-digital-enterprise-april-2016.pdf; Tungboriboonrat, C. 2017. The Impact of the Digital Economy on Taxation: "Adapt or Die" A Perspective from Thailand. Presentation at the Taxation of the Digital Economy Seminar. Asian Development Bank.

activities has been fundamentally changed by digitalisation and technological advancement. The speed at which information can be processed and analysed as well as the decision-making capabilities of newly developed software and algorithms have allowed for the automation of certain traditional business functions. Equally, the ease with which people in different countries can be connected through an online platform has given businesses greater flexibility over where they locate their business activities and made it possible for them to access different geographic markets from a limited number of remote locations, without the need for a material local presence.

These changes do not undermine the principle that stands behind the international tax framework, even if they are affecting how the profits of a multinational group are allocated between countries for tax purposes. The important question when applying corporation tax to a multinational group is what amount of profit should be taxed domestically compared with the other countries in which the group operates. The answer to that question is currently determined by an international tax framework, which was developed in the early 20th century, and is reflected in the OECD Model Tax Convention and in the double tax treaties that individual countries enter into with other countries. That framework provides; firstly a transfer pricing rules framework (Article 9 of the OECD model), which looks to ensure that a multinational group's profit is divided between its constituent companies in accordance with those companies' contributions to the generation of profit. Secondly, the concept of a permanent establishment (Article 5 of the OECD model) that awards taxing rights over the profits of a company to the countries in which that company has a permanent physical presence. Thirdly, the profit attribution rules (Article 7 of the OECD model), which allocates the profits of that company between those countries based on the relative value of the activities it undertakes within each jurisdiction.

The overall principle underpinning that framework is to tax a multinational group’s profits in the countries in which it undertakes its value-generating activities, such as where major operating decisions are made and where important assets and risks are controlled. Another country should not have a general right to tax profits that a local business generates from a product that is designed locally, manufactured locally, marketed locally and then sold remotely

to that country's customers. Equally a country should not have a general right to tax the profits that a foreign business generates from a product that is designed in another country, manufactured and marketed in that country and then sold remotely to the country's consumer. Instead, countries should have the right to tax business profits derived from productive activities, enterprise and human innovation in their jurisdiction, irrespective of where shareholders and customers are located.

The digital economy has a range of impacts that tax authorities should be aware of. The perception that it is less regulated and taxed than other sectors of the economy is becoming commonplace.[51] This is only increasing with some scandals such as the Panama Papers and investigations by the European Union of some digital companies. An environment that allows companies operating in the digital economy to get away with paying minimal tax can be seen to distort competition and create an unlevel playing field in which such companies have an unfair advantage.[52] It also puts government tax revenue at risk, especially if *"tax-rich"* activities that used to operate in the traditional economy are being pushed out by new digital activities. On the other hand, the digital economy holds the potential to interact with the informal economy and serve as a tool to formalize certain activities, thereby creating new sources of tax revenue.[53] However, in imposing digital taxation, a number of legal issues must first be addressed.

3.2.1. How to determine value creation

[51] Aslam, A., and A. Shah. 2017. Taxation and the Peer-to-Peer Economy. IMF Working Paper WO/17/187. http://www.imf.org/en/Publications/WP/Issues/2017/08/08/Taxation-and-the-Peer-to-Peer-Economy-45157

[52] Hadzhieva, E. 2016. Tax Challenges in the Digital Economy. European Parliament. http://www.europarl.europa.eu/RegData/etudes/STUD/2016/579002/IPOL_STU(2016)579002_EN.pdf;

Harpaz, J. 2014. Digital Economy Raises Serious Questions for Global Tax Policy. Forbes. https://www.forbes.com/sites/joeharpaz/2014/03/12/digital-economy-raises-serious-questions-for-global-tax-policy/#3d0adc8757ef; Highfield, R. 2017. Globalisation and Digital Impacts in the Region and Some Related Tax Matters. Presentation at the Taxation of the Digital Economy Seminar. Asian Development Bank Institute, Tokyo. 21–24 August.

[53] Aslam, A., and A. Shah. 2017. Taxation and the Peer-to-Peer Economy. IMF Working Paper WO/17/187. http://www.imf.org/en/Publications/WP/Issues/2017/08/08/Taxation-and-the-Peer-to-Peer-Economy-45157

Value creation can only be determined by the capture of digital data. There is no law that sets out provisions on how to capture digital data. If this data is not captured, then the question of value creation cannot be addressed. This in turn implies that a digital business activity then cannot be identified resulting in tax losses. Regulating the digital economy in capturing value creation is therefore key in identifying online businesses. The 2018 Interim Report on Tax Challenges Arising from Digitalization[54] recognised differences in the roles of data and user participation in value creation and assumes consensus that taxation in a digitalized environment should be based on value creation by the enterprise.[55] Thus, the only debate would appear to be whether the user data that can be monetized or the user participation that adds value – such as by participation in a network, e.g. bringing in friends – is in fact value creation by the enterprise. There is probably far less agreement that the fundamental issue is what value the enterprise creates than might appear from the Interim Report, and far less agreement on what that means in any case. This means that within the digital economy users do not have the sole role of user/consumer anymore but switch between producer of content and user of content created by others and the company. In taxing the digital business therefore, it is necessary to distinguish between the different ways that users can contribute and their degree of participation in order to correctly consider the value they have created.

3.2.2. Aligning profit with value generation

While governments continue to support the principle of aligning profit with value creation, there is a clear need to consider the situations in which that principle is not being delivered by the existing international tax framework.[56] In particular, it is important to consider how the international tax framework is being stressed by digitalisation and whether it is flexible enough

[54] OECD. 2018. Brief on the tax challenges arising from digitalisation: Interim Report. https://www.oecd.org/tax/beps/brief-on-the-tax-challenges-arising-from-digitalisation-interim-report-2018.pdf
55 Lennard, Michael. 2018. Act of creation: the OECD/G20 test of Value Creation as a basis for taxing rights and its relevance to developing countries. Transnational Corporations, Volume 25, Number 3. https://unctad.org/en/PublicationChapters/diaeia2018d5a4_en.pdf

[56] Hadzhieva, E. 2016. Tax Challenges in the Digital Economy. European Parliament. http://www.europarl.europa.eu/RegData/etudes/STUD/2016/579002/IPOL_STU(2016)579002_EN.pdf; Harpaz, J. 2014. Digital Economy Raises Serious Questions for Global Tax Policy. Forbes. https://www.forbes.com/sites/joeharpaz/2014/03/12/digital-economy-raises-serious-questions-for-global-tax-policy/#3d0adc8757ef

to take account of the differences in how certain digital business models operate and generate value. For example, it is necessary to consider how the increased integration of multinational groups, and the ability for groups to manage their global operations from a central location, could create challenges in the administration of transfer pricing rules (e.g. in determining where control is exercised) and how those challenges could be best dealt with. And as part of that, consideration should be given to how those challenges might be exacerbated in digital business models that are highly digitalised in terms of their inputs, processes and outputs.

3.2.3. Digital business models

Is the international tax framework is flexible enough to accommodate different business models within the digital economy and ensure fair outcomes that align profits with value creation? The mere consumption of a good or service in a country should not, by itself, entitle that country to tax the profits of the business providing that good or service. However, for many digital businesses that operate in markets through an online platform, the users of the platform (which may or may not be identical to a business's consumers) play a more integral role in the pursuit of revenue and create material value for a business through their sustained engagement and active participation.[57] Take, for example, a social media platform that generates revenue through directing adverts at Kenyan users who use a free online platform. The success of that business is reliant on the development of a large user base, on the engagement of users and on users' contribution of content. It is also dependent on the collection of user data from intensive monitoring of that engagement and contribution, which can be sold to third parties or used to generate increased revenues through more precisely targeted adverts. Equally, take an online marketplace that generates revenue through matching suppliers and purchasers of a good in return for a commission, or a collaborative platform that charges a commission for bringing together supply and demand for assets and possessions owned by individuals. The success of those businesses is reliant on the active involvement of users on either side of the intermediated market and the expansion of that user base to allow the business to benefit from network effects, economies of scale and market power. The desire to maintain an engaged customer base and

[57] Robert, E. 2017. Work of the Task Force on the Digital Economy. Presentation at the Taxation of the Digital Economy Seminar. Asian Development Bank Institute, Tokyo. 21–24 August.

use information from that customer base to improve products and offerings is not new. However, the success of the businesses outlined above is much more reliant on the activities, decisions and participation of users with whom the business forms a more sophisticated and sustained relationship.

3.2.4. Users generated value

The participation of users, which is not under the control of the business, contributes to the creation of the brand. It also contributes to the generation of valuable data, and to the development of a critical mass of users, which helps to establish market power and allows businesses to take advantage of the low marginal costs that are typically associated with running such a platform across multiple markets. It also explains why some of these businesses choose to or are able to provide innovative services to users for no charge. This user-generated value is not captured under the existing international tax framework, which focuses exclusively on the physical activities of a business itself in determining where profits should be allocated for corporate tax purposes. This means that online businesses can generate significant value from a market like Kenya without the profits they derive from that value being subject to the Kenyan corporation tax.

Furthermore, companies in the gig economy (Uber, Deliveroo, TaskRabbit, Lyft, Airbnb) operate within a hugely intricate system. These companies typically bring together three parties: the gig worker, the digital platform and the customer. These companies then position themselves as intermediaries connecting the workers with the users through a digital platform. Often this means positioning themselves as technology companies, with critical implications for their tax status.[58] Uber is an example. Uber has approximately 3.5 million customers in the UK served by around 40,000 drivers. Rather than describing itself as a transportation company that employs drivers and pays taxes like traditional companies, Uber describes itself as a digital intermediary that provides a *'matchmaking'* service of drivers and users through its digital platform from the Netherlands. These two features, being a digital company and being based

[58] BEIS, 'The characteristics of those in the gig economy – Final Report' (February 2018) BEIS Research Paper: 2018 no. 2, at 4. Work and Pensions Committee, 'Self-employment and the gig economy' (26th April 2017).

in the Netherlands, allow Uber to make considerable tax savings.[59] The Uber example shows that the digital economy is relatively undertaxed when compared with traditional businesses[60] which in many countries have varied taxes.

3.2.5. Permanent establishment versus the digital presence/electronic presence

A major challenge concerning the taxation of the digital economy has to do with the mobile and intangible nature of digital goods and services. Over the last century, the traditional economy and the existing tax policies attached to it have been rooted in clear-cut jurisdictional brick-and-mortar physical locations where goods and services are produced could signify physical presence (also known as a permanent establishment), and they could be used to determine where tax must be paid. In the digital economy, the same thought process cannot be applied. Almost all commerce along the supply chain is done virtually without a significant physical presence in one or any jurisdiction, although a company may still have physical stores, factories, or warehouses. The very nature of the digital economy means that a fixed place of residence within a national boundary is no longer required to generate income, especially for new business models based on subscription, access or advertisement, and new technologies such as 3D printing. Yet, global tax policy is still lagging behind this innovation.[61]

3.2.6. Anonymous digital operators

Another challenge relates to the difficulty for tax administrations to collect value-added-tax (VAT) on cross border trade in services and intangibles. This issue stems from challenges to do with anonymity and difficulty of identifying companies in the digital economy, the absence

[59] Ibid.

60 Szczepanski, M. 2018. Interim Digital Services Tax on Revenues from Certain Digital Services. European Parliament Briefing. European Parliamentary Research Service. http://www.europarl.europa.eu/RegData/etudes/BRIE/2018/625132/EPRS_BRI(2018)625132_EN.pdf

[61] Hadzhieva, E. 2016. Tax Challenges in the Digital Economy. European Parliament. http://www.europarl.europa.eu/RegData/etudes/STUD/2016/579002/IPOL_STU(2016)579002_EN.pdf;

Harpaz, J. 2014. Digital Economy Raises Serious Questions for Global Tax Policy. Forbes. https://www.forbes.com/sites/joeharpaz/2014/03/12/digital-economy-raises-serious-questions-for-global-tax-policy/#3d0adc8757ef;

of a paper trail, determining the amount of tax, and the increased ability to conceal incomes and assets offshore using tax havens.[62]

3.2.7. Tax treatment of consumers of service provider platforms

Another issue relates to domestic enforcement. Questions are raised about the nature of tax implications, for example whether workers of an online taxi (such as An Nisa, Kenyan Women only taxi platform), car transportation, or food delivery mobile app, in which drivers use their own cars, are considered employees or self-employed independent contractors? How tax officials should treat these workers is unclear.[63] Other relevant issues include the digital economy's reliance on data, network effects, the spread of multisided business models, a tendency toward monopoly or oligopoly, and volatility.[64] There are also logistical challenges as the digital economy has increased cross-border movements of people, goods, and services as well as the number of economic agents operating in the system. Such an increase in numbers presents a greater workload for tax administrators and raises questions about their ability to administer tax law effectively.

It is clear that the rise of the digital economy is creating many challenges for policy makers, and they must be attentive to these changes and understand what they are regulating. A focus on adapting and reinventing policies to stay ahead of the game is necessary to ensure they are regulating an economy that exists today.

4. Current Tax Measures to Regulate the Digital Economy

[62] Hadzhieva, E. 2016. Tax Challenges in the Digital Economy. European Parliament. http://www.europarl.europa.eu/RegData/etudes/STUD/2016/579002/IPOL_STU(2016)579002_EN.pdf;

[63] Highfield, R. 2017. Globalisation and Digital Impacts in the Region and Some Related Tax Matters. Presentation at the Taxation of the Digital Economy Seminar. Asian Development Bank Institute, Tokyo. 21–24 August.

[64] Organisation for Economic Co-operation and Development (OECD). 2015. OECD/G20 Base Erosion and Profit Shifting Project 2015 Final Reports. Executive Summaries. http://www.oecd.org/ctp/beps-reports-2015-executive-summaries.pdf

The first major attempt to renovate and align tax policy with today's contemporary economy was started by the Organisation for Economic Co-operation and Development (OECD) at the request of the Group of Twenty (G20). The OECD published a plan, called the Action Plan on Base Erosion and Profit Shifting (also referred to as BEPS). The overarching objective of BEPS is to level the playing field for tomorrow's economy by ensuring that all businesses are taxed equally and gaps in international tax rules that allow multinational enterprises to legally but artificially shift profits to low or no-tax jurisdictions are eliminated.[65] The plan consists of 15 action points, four of which have been identified as a minimum standard respectively focused on treaty shopping, country-by-country reporting, dispute resolution, and harmful tax practices. These are areas where no action by some countries would have created negative spillovers on other countries.[66] These four minimum standards have changed the global taxation landscape from one based on competition to one based on collaboration to help level the playing field.

The OECD does not *"ring-fence"* the digital economy for special tax treatment within BEPS, instead asserting the overall global economy to be digital. As a result, it does not highlight any specific BEPS risks in the digital economy as all the BEPS recommendations relate to the digital economy. Some of the digital economy's features do nonetheless *"exacerbate"* existing BEPS problems. In turn, some BEPS actions are found to be particularly relevant for the digital economy. These include modification of definition of permanent guidance (Actions 8–10), and recommendations on the design of effective controlled foreign corporation (CFC) rules to ensure digital activities do not unfairly benefit from them (Action 3).[67] BEPS stresses that the

[65] Organisation for Economic Co-operation and Development (OECD). 2015. OECD/G20 Base Erosion and Profit Shifting Project 2015 Final Reports. Executive Summaries. http://www.oecd.org/ctp/beps-reports-2015-executive-summaries.pdf

[66] Organisation for Economic Co-operation and Development (OECD). 2015. OECD/G20 Base Erosion and Profit Shifting Project 2015 Final Reports. Executive Summaries. http://www.oecd.org/ctp/beps-reports-2015-executive-summaries.pdf; McIntosh-Watt, K. 2017. BEPS Update. Presentation at the Taxation of the Digital Economy Seminar. Asian Development Bank Institute, Tokyo. 21–24 August; Robert, E. 2017. Work of the Task Force on the Digital Economy. Presentation at the Taxation of the Digital Economy Seminar. Asian Development Bank Institute, Tokyo. 21–24 August.

[67] Organisation for Economic Co-operation and Development (OECD). 2015. OECD/G20 Base Erosion and Profit Shifting Project 2015 Final Reports. Executive Summaries. http://www.oecd.org/ctp/beps-reports-2015-executive-summaries.pdf; McIntosh-Watt, K. 2017. BEPS Update. Presentation at the Taxation of the Digital Economy Seminar. Asian Development Bank Institute, Tokyo. 21–24 August; Robert, E. 2017. Work of the Task

traditional jurisdictional approach to taxation must change to make it suitable for digital commerce. The OECD also highlights that the digital economy raises not only BEPS issues, but also broader tax challenges. Some of these relate to direct tax such as nexus, data, and characterization; others relate to indirect tax such as the collection of VAT and exception for low-value imports, which may no longer be appropriate in the digital era[68]. The potential solutions face numerous challenges. One comes from a lack of data from country-by-country reporting, VAT returns, and cross-border transactions which are needed to understand the broader tax challenges.

Task Force on the Digital Economy (TFDE) has recommended several policy options in taxing the digital economy such as: modifications to the exemptions from permanent establishment status, introducing an equalization levy/excise tax, withholding tax on certain types of digital transactions, revising the destination principle in VAT and ensuring compliance and collection. In ensuring, that the digital presence of an organization in a given country is reflected in order to trigger taxability the TFDE is considering using supply-based factors to determine *"significant economy presence"* that could be identified as representing a deliberate intention to penetrate a specific jurisdiction and make a sustainable presence. Examples include the local domain name of a website, factors that indicate the localization of a platform such as the language of the platform, and the availability of local payment options. Alternatively, demand- or user-based factors could be used. One example of this is the notion of monthly active users or a significant user base, which shows an organization's capacity to derive significant profits from, for instance, people who are paying for goods or services from the platform as well as people who are engaging and using the platform.

The EU Commission on Digital Economy Taxation has highlighted that the existing international tax framework, based on which the nexus with a particular jurisdiction is determined, using the *"brick and mortar"* requirements, does not cover digital companies

Force on the Digital Economy. Presentation at the Taxation of the Digital Economy Seminar. Asian Development Bank Institute, Tokyo. 21–24 August.

[68] Organisation for Economic Co-operation and Development (OECD). 2015. OECD/G20 Base Erosion and Profit Shifting Project 2015 Final Reports. Executive Summaries. http://www.oecd.org/ctp/beps-reports-2015-executive-summaries.pdf; Robert, E. 2017. Work of the Task Force on the Digital Economy. Presentation at the Taxation of the Digital Economy Seminar. Asian Development Bank Institute, Tokyo. 21–24 August.

sufficiently.[69] With regard to the underlying principle of taxing profits where value is created, the EC identifies two main policy challenges. First, the appropriate nexus should be determined by where digital service providers provide services and have commercial presence in a tax jurisdiction with no or limited physical presence therein Second, the attribution of profits based on digitized business models relying on intangible assets, knowledge, and data should also be addressed.[70]

The European Commission (EC) further recognizes that an international solution would be ideal. The EC suggests a fundamental reform of the existing international tax rules with a view to embedding the digital economy in the general international corporate tax framework. According to the EC, the new international tax rules, in particular, will need to address the permanent establishment concept as well as transfer pricing and profit attribution. The EC's view is that the Common Consolidated Corporate Tax Base (CCCTB), which uses the formula apportionment method based on assets, labor, and sales, reflects adequately where value is created. Further, the EC believes that the CCCTB proposal's scope allows for examining further enhancements to ensure that digital activities are covered effectively.[71] Whether developing African countries have the capacity to effectively implement this remains to be seen.

In addition to this long-term strategy, the EC also suggests short-term alternative EU and international level. These include: an equalization tax on turnover of digitalized companies, a withholding tax on digital transactions, a levy on revenues generated from providing digital services or advertising activities, and Member States to pay taxes where they have a significant digital presence, even if they do not have a physical presence there. These options raise difficult questions regarding their compatibility with tax treaties, fundamental freedoms, free trade agreements and WTO rules. The failure, however, to reach agreement on a coordinated approach increases the risk of unilateral action by member states, which concomitantly could potentially a harmonized global approach to taxing the digital economy.

[69] Morris, W., van der Made, B., Dewar, C., and Maaskant, M. 2017. EU Commission on Digital Economy Taxation. Journal of International Taxation, Vol. 28, Iss 12, p. 17-18

[70] European Commission. 2018. Communication from the Commission To The European Parliament and the Council. Brussels, 21.3.2018 COM(2018) 146 Final

[71] European Commission. 2018. Communication from the Commission To The European Parliament and the Council. Brussels, 21.3.2018 COM(2018) 146 Final

The Human Rights Council of the UN proposed, in 2012, the introduction of a global *financial transaction tax* (FTT). In response, the European Telecommunication Network Operations Association (ETNO) suggested a *Global Internet Tax* - taxing Internet companies when they deliver content. One commentator, Rifat Azam, proposes a *Global E-Commerce Tax* (GET) – a 15% flat rate on net income from cross border transactions – be established by an international treaty and imposed by a supranational institution, the Global Tax Fund. The aim, again, is for the tax receipts to fund global public goods.[72] Azam maintains the GET would not infringe on the separate economic and political status of countries, while achieving *'legitimate, certain, efficient and fair taxation on cross border e-commerce income'*.[73]

French economists have created a unique solution to tax intangible assets — an Internet data tax. To secure some meaningful tax payments from Google and other multinationals,[74] France considered a new tax on personal data. Colin (Inspector of Finance) explains to *Forbes*: *The report mainly recommends that developed countries recover the power to tax profits made by giant tech companies. A new definition of a permanent establishment must be introduced, grounded in the fact that users play a key role in digital value creation. Through user data, value is created where applications are used by people, not only in Bermuda or in the Cayman Islands.*[75]

The report suggests France negotiate with the EU and the OECD to implement definitions and rules. The tax rate would depend on the company's compliance with data protection standards, how many users are tracked, and whether their ownership of the data is respected.[76] Companies

[72] Rifat Azam, 'The Political Feasibility of a Global E-Commerce Tax (2013) 43 The University of Memphis Law Review 2.

[73] Ibid., 3.

[74] Google receives 2 billion Euros each year in revenues from France, but pays a trifling amount of tax: Richard Dunlop-Walters, 'France Suggests a Tax on Data Collection', The Brief (online), 21 January 2012, http://thebrief.io/news/france-suggests-a-tax-on-data-collection.

[75] Nicolas Colin, 'Corporate Tax 2.0: Why France and the World Need a New Tax System for the Digital Age', Forbes (online), 28 January 2013, http://www.forbes.com/sites/singularity/2013/01/28/corporate-tax-2-0-why-france-and-the-world-need-a-new-tax-system-for-the-digital-age/.

[76] Ibid; see also Winston Maxwell and Xenia Legendre, 'French Report Recommends Privacy Tax', Hogan Lovells Chronicle of Data Protection (online)

would be required to self-report, supervised by external auditors. This type of tax raises several questions. For example, it is unclear how it will impact data protection. The scheme may strengthen data protection, as the annual auditing process would require firms to file declarations indicating the extent of data monitoring. On the other hand, companies that pay a tax for the personal data they use may feel a certain degree of ownership over that data, a sense of ownership that may be harmful to data protection. Further, the monitoring and auditing of the scheme may be privacy invasive in itself.

Reflecting on the foregoing many developing African countries are inadequately prepared to tax the digital economy for various reasons. One, their digital infrastructure is not able to keep pace with the fast-growing demand for digital services and there is a severe lack of infrastructure for digital access and connectivity.[77] Two, lack of cost-effective, available and reliable electricity is a major obstacle to digital economy development,[78] an example is Malawi where power shortage is rampant (recently, South Africa has also been having power outages). Without electricity, there can be no digital economy and this could for example exacerbate losing out on capturing digital data by companies that are able to invest in generators. Three, inadequate capacity within the revenue authority department responsible for monitoring digital transactions. Four, lack of domestic data on online businesses.

Since data has become the primary resource of an increasingly digitalized economy developing African countries need to secure a degree of national sovereignty with respect to issues of data ownership, privacy, cybersecurity, structural transformation and economic inclusion objectives. These remain rudimentary in developing African countries. The national taxation systems have not yet adapted to the rise of e-commerce and digital platforms. Issues of market dominance, competition and market access continue to pose challenges. Developing African countries are still in the formative stages of developing digital industrial capabilities including

http://www.hldataprotection.com/2013/01/articles/international-eu-privacy/french-reportrecommends-privacy-tax/

[77] Quinones, G., Nicholson, B. and Heeks, R. (2015). A Literature Review of E-Entrepreneurship in Emerging Economies: Positioning Research on Latin American Digital Startups. In R. L. La Rovere, L. de M. Ozório, & L. de J. Melo, eds. Entrepreneurship in BRICS, 179-208. Springer, Cham. http://link.springer.com/10.1007/978-3-319-11412-5

[78] Kuek, Siou Chew, Cecilia M Paradi-Guilford, Toks Fayomi, Saori Imaizumi, Panos Ipeirotis. 2015. *The Global Opportunity in Online Outsourcing*. World Bank Group Report.

ensuring high speed and cheap broadband, building linkages between digital platforms and domestically produced goods and services, the provision of industrial financing instruments to do so and the adaptation of technology and skills curricula and institutions to new digital realities.

This paper has shown that the borderless nature of digital economy produces specific challenges around identification of businesses, determination of the extent of activities, information collection and verification, and identification of customers. The continual increase in the potential of digital economy and the reduced need for extensive physical presence to carry on business, alongside the role of users has raised questions as to whether the current rules to determine a nexus with a jurisdiction for tax purposes are appropriate. Companies in the digital economy gather and use information across borders and this raises the issue of how to attribute value created from the generation of data through digital products and services and how to characterise for tax purposes a person or entity's supply of data in a transaction. Finally, the development of new digital products and means of delivering services creates uncertainties in relation to the proper characterisation of payments made in the context of new business models and how to apply tax to these payment methods. Consequently, in attempting to tax the digital economy, a number of policy measures are next provided.

5. Conclusion and Policy Recommendations

The literature addressed in the paper focused on recent government responses in highlighting the problem with taxing the digital economy and identifying what key areas need policy recommendations. Although these government responses do address the challenges of taxing the digital economy, there has been little systematic description on how these policy recommendations would provide an effective template for developing African countries to rely on in enacting their own laws. This paper now amends this omission. It offers the following potential solutions towards aligning the digital economy with the tax rules governing traditional businesses:

- The reason that digital companies can avoid paying taxes is that they do not need physical offices and stores to sell their goods and services to consumers in a particular country. Developing continental taxation principles for online advertising of goods and services is therefore a step in the right direction. This however, is a political decision

and must be negotiated at the Africa Union level if member states are to agree on these principles.

- Further to the above, African countries should consider introducing a digital presence tax. This tax should be subjected to bilateral and multilateral agreements between the state in which the foreign company has a digital presence and the state in which the foreign company is incorporated and is a tax payer. These agreements must allow for automatic exchange of tax information.
- The African Union should push for a global or continental consensus towards a legal requirement for all companies with a digital presence to provide a database showing the source of its revenue generation.
- Domestic African states should authorise financial institutions to deduct value added tax (VAT)/sales tax for goods and services purchased and paid for online and through applications.
- African states should, at the African Union level as well as within their regional blocs, recognise digital presence of companies as permanent establishment for tax purposes.
- Domestic states should enact regulations requiring web hosting companies to declare digital presence of foreign companies on their online platforms.
- Given the nature of the challenges and the currently fragmented solutions in individual developing African countries, a continental approach to taxing the digital economy should be based on cooperation and specific principles in taxing transactions in the digital economy. Meaning that similarly situated taxpayers should be treated similarly; certainty in how a tax applies; effective tax administration, meaning costs for governments and companies should be as low as possible; encouraging economic growth and efficiency by not unduly impeding the economy's growth; and producing appropriate government revenues, meaning that governments should be able to anticipate a predictable and reliable revenue stream to fund their operations.
- France has framed a unilateral digital tax around three revenue streams: advertising revenue; commission income generated by online marketplaces when facilitating transactions between users; and income from the resale of user data for advertising purposes. Developing African countries can look to apply the French approach.

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