



What is Digital Trade?



The term digital trade is very wide in its scope of application. It covers everything from the sale of consumer products on the internet, to the supply of online services and global value chains amongst a plethora of applications and platforms ². Digital trade has often been met with a broad range of challenges; therefore, this article seeks to succinctly outline the following challenges in taxation and data centres, firewalls, and data localization due to the core infrastructure they provide to facilitate digital cross-border trade.

Challenges in Digital Trade

The frictions in digital trade often stem from protectionist policies and regulations of the respective governments in question that have a myriad of sectors and industries they legislate over. State sovereignty is a *jus cogens norm* under international law, therefore, a state is well within its right to legislate as it wishes. Notwithstanding, certain policies are injurious to both economic development and the many forms through which digital trade is facilitated. Some of the avenues through which a state may promulgate such policies include the following:

1. Taxation:

Taxation can easily be defined as the mandatory contributions levied on individuals or corporations by a government entity, whether local, regional, or international ³. The type of tax often associated with friction to digital trade is tariffs. These are taxes on imported goods, charged against the importer to protect the domestic market.

¹ Authored by Solagbade Sogbetun and Adekola Thompson

² https://ustr.gov/about-us/policy-offices/press-office/fact-sheets/2017/march/key-barriers-digital-trade#:~:text=Digital%20trade%20is%20a%20broad, myriad%20other%20platforms%20and%20applications. accessed 5:45pm 28 June 2022

³ https://www.investopedia.com/terms/t/taxes.asp accessed 6:15pm 28 June 2022

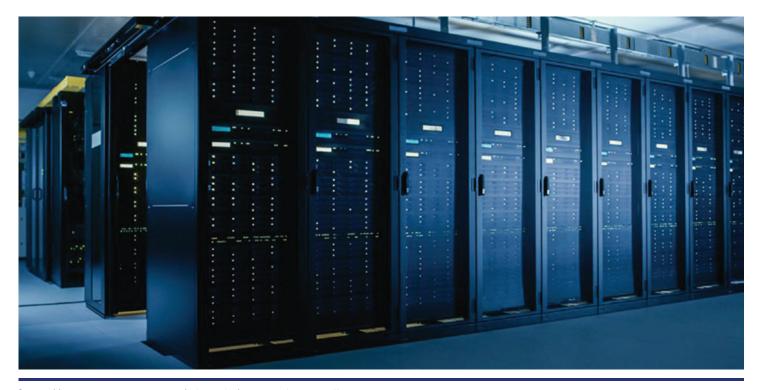




The application of such taxes on digital trade can arise when the hardware infrastructure of the network to support it is heavily charged with cumbersome payments that disincentivize business owners from investing in the country/state in question. To elucidate further on this point, data centres and their importance to digital trade, along with the site requirements will be analysed.

What is a data centre?

This is a facility that organizations use to house critical applications and data. It often involves key components, such as routers, switches, firewalls, storage systems, servers and application and delivery controllers. With the new age of cloud-computing, modern data centres must possess the ability to communicate with multiple private and public data centres simultaneously. This is a foundational technological requirement for many companies that engage in digital trade because they enable some key processes, such as customer relationship management (CRM), Big data, artificial intelligence, and machine learning among others.



⁵ https://www.paloaltonetworks.com/cyberpedia/what-is-a-data-center#:~:text=Data%20centers%20are%20an%20integral,High%2Dvolume%20e%2Dcommerce %20transactions accessed 6:50pm 28 June 2022



Site requirements for data centres:

There are certain mandatory physical conditions that are favourable for the establishment of a data centre. Some of these include:

- power in terms cost per kWh, carbon footprint, fuel mix and ICT infrastructure.
- Telecom (fibre optic cable providers and latency)
- Proximity to headquarters or transportation facilities, population size, skilled labour force, water etc.
- Climate and environmental risks
- Availability of green energy

The government could levy a comprehensive tax on any of the requirements referred to above.

The burdensome imposition of tax & clean energy:

Data centres are capital intensive and therefore, require in addition to the aforementioned conditions, cost-effective tax accommodation for the ease of operating in business long term. For instance, certain states within America have created incentives to attract data centres, such as the Nebraska Advantage program, which was developed to accommodate large data centres with a minimum of 30 new jobs and \$200 million of capital investment among others. More recently, data centres have incorporated clean energy into their business operations because they are often associated with high energy consumption. According to a study published in journal Science, in 2010, data centres worldwide consumed an estimated 1% of global electricity use. Though it is important for data centre companies to be taxed and monitored in adherence to sustainability requirements, some of these provisions' present obstacles to further expansion of the business for established companies or new entrants that intend to provide similar services. It remains equally as important that the economic value which data centres provide can be viewed as the integration of intelligence in business development strategies for highly specialized manufacturing, clean energy, cloud computing, media, high volume e-commerce transactions and communications etc. ⁷

Solution:

With a Pan-African context, Africa is often referred to as the next frontier for technological development ⁸. With a bourgeoning tech industry, the future need for co-location services ⁹ which data centre companies provide will become a necessity. Invariably news of foreign investment has become frequent and apparent in the African technology space, therefore, it would be prudent for the governments of African countries to alleviate the numerous levies that continue to stifle growth and development in this space. This could be expedited through the establishment of Free Trade Zones within the state. For instance, 'African Data Centers' secured a physical location and established its presence at Eko-Atlantic, which is a Free Trade Zone within Lagos State, Nigeria ¹⁰.

Inclusive of the above recommendation and by mandating subsequent standards or minimum requirements for member states to adopt data centre regulations within Africa, the African Continental Free Trade Area Single Market can be realised in view of Agenda 2063.

⁷ Camoin associates, 'Data Centers as Opportunities for Economic' 8 February 2022 by Jim Damicis

https://www.camoinassociates.com/resources/data-centers-as-opportunities-for-economic-growth/#:~:text=Industry%20Economic%20Trends&text=In%20202 1%2C%20IBISWorld%20estimates%20that,36%2C885%20employment accessed 1:00pm 29 June 2022

 $^{^{8}\} https://www.howwemadeitinafrica.com/africas-data-centre-market-poised-for-massive-growth/120090/\ accessed\ 6:30pm\ 28\ June\ 2022/\ accessed\ 6:30pm\ 2022/\ acces$

⁹ https://www.techopedia.com/definition/2485/co-location-colo accessed 3:00pm 29 June 2022

¹⁰ https://www.africadatacentres.com/lagos accessed 2:45pm 30 June 2022



2. Firewalls:

A firewall is a network security device that monitors incoming and outgoing network traffic and decides whether to allow or block specific traffic based on a defined set of security rules .



The challenge this device presents to digital trade is that it is often used by State governments, institutions and organizations to block content and information from being accessed by the subordinates of their authority. A clear instance of this is identified in China, where for a period no less than a decade, it restricted access of 11 out of 25 most popular websites, therefore cordoning off the Chinese market from the western companies and organizations that would otherwise prefer to gain unrestricted access. On one hand, these policies might seem protectionist in nature, because the major Chinese E-commerce and tech companies like Alibaba and Tencent respectively developed as a result of this. Further to this, China also banned foreign invested enterprises who directly offer cloud computing services within China. Without venturing into the details of the underlying political motivations behind these decisions, it is apparent that digital trade remains subject to the decisions taken by sovereign state authorities, notwithstanding the economic benefit to the protectionist state in question.

For the AfCFTA the effective implementation of anti-firewall policies among its Member States would greatly encourage cross-border trade and further the actualization of the African Single Market. The free flow of data between Member states will provide opportunities for data analytics, data mapping and data navigation for the efficient allocation of resources in the marketplace and government town-planning, among many other applicable use cases.

¹¹ https://www.cisco.com/c/en/us/products/security/firewalls/what-is-a-firewall.html accessed 4:30pm 29 June 2022

¹² Africa Continental Free Trade Area



3. Data localization requirements:

Data localization refers to the practice of storing and processing data within the region it originated from . This means that if data is captured by a company in Nigeria, it remains within Nigeria for processing and the data will not be transmitted to another country for processing. Often, the storage requirements of data may vary in degrees of restriction from data processing requirements. Data localization is a regulatory requirement in many jurisdictions. For instance, in the European Union, where datasets which comprise of both personal and non-personal data are permitted to be stored and processed within its borders.



The value of data localization in digital trade is that it enables small to medium sized businesses develop and expand to new markets within the region. Adherence to data localization as a principle of data organization and management further indemnifies a company against subsequent data regulation that state regulators may enforce for data protection.

Data localization as a challenge

These challenges will be explored strictly within the confines of mobile money services and cross-border transfers. The direct transmission of funds from an individual to another is absolutely necessary to enable the facilitation of cross-border trade. Nonetheless, it is true that these channels could be used to enable money laundering within the region. Consequently, certain third-party requirements must be met as the need arises in the interest of Anti-Money Laundering (AML) and Combating the Financing of Terrorism (CFT) compliance ¹⁵. Due to the inadequacy of concise provisions on how much data can be shared with international AML/CFT agencies and mobile money operators, data localization may not function seamlessly. For instance, data protection in ECOWAS¹⁶ requires that data transfers within countries can only happen when they provide 'an adequate level of protection for privacy, freedoms and the fundamental rights of individuals.'¹⁷ The nuances of these problems often leave state governments with a multiplicity of vantage points to consider on a case-by-case basis, because the typical factors under consideration constantly vary in weight of application.

The AfCFTA has recognised the importance of data governance to its members and the subsequent need to provide a single comprehensive standard through which data is managed to unlock the full potential of Africa¹⁸.

¹⁵ The impact of data localization requirements on the growth of mobile money-enabled remittances GSMA (March 2019) https://www.gsma.com/mobilefordevelopment/wp-content/uploads/2019/03/GSMA_Understanding-the-impact-of-data-localisation.pdf accessed 11:00am 30 June 2022

¹⁶ Economic Community Of West African States

¹⁷ Supplementary act A/SA.1/01/10 on personal data protection within ECOWAS (2010)

https://www.statewatch.org/media/documents/news/2013/mar/ecowas-dp-act.pdf accessed 1:20pm 30 June 2022

¹⁸ https://au.int/en/pressreleases/20211118/modernising-statistical-systems-must-pay-attention-data-value-chain-data accessed 3:45pm 7 July 2022



Conclusion

Digital trade is essential in todays' modern economy, and the frictions that stifle the application of cross-border digital trade are numerous and constantly challenge policy makers, regulators, judiciaries, and lawmakers of governments around the world. At the moment, the European parliament of the EU is at the forefront of constructing regulatory guidelines for digital trade on a plethora of matters which have technical, political, economic and legal ramifications¹⁹; and the resultant effects of these regulations form the prescriptive basis upon which other countries legislate on similar matters. Cross-border digital trade requires adept policy-making and pragmatic solutions to problems. Therefore, a dynamic approach and singular vision adopted by all facilitating entities can progressively ease the frictions that subsist.

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¹⁹ Deal on Digital Market Act: EU rules to ensure fair competition and more choice for users (24-03-2022) https://www.europarl.europa.eu/news/en/press-room/20220315IPR25504/deal-on-digital-markets-act-ensuring-fair-competition-and-more-choice-for-users accessed 3:07pm 30 June 2022