

**Setting the Scene of Rwanda's E-commerce Competitiveness:
Exploring the Implications of regulations for Data Privacy, Intellectual Property
and Competition policy**

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Abstract

While Rwanda aspires to become a regional hub of digital economy and ecommerce, the development of laws, regulations and other international instruments is a lengthy time-consuming process. And as the technology continues to accelerate at an exponential pace, so to avoid a regulation gap, it's important for today policymakers and regulators to keep in mind that they need to be fit for the technologies of tomorrow. Especially in this current context of Covid-19 outbreak as business shift online and people work from home, there is a strong demand for digital services and the digital economy is playing a key role in Rwanda's response to the pandemic. For Rwandan Digital economy being competitive, this will require targeted efforts in development of digital infrastructure and this needs to start by setting up a comprehensive regulatory framework for data protection, intellectual property and competition law and policy for the Rwandan e-commerce sector to expand and take place on a large scale.

1. Introduction

Covid-19 has fundamentally changed the world we live in, we worry about our parents, our children, our jobs, and lives. The Coronavirus pandemic is not only a medical emergency but it also dramatically changes the country's socio-economic life. Among the number of measures put in place to reduce the spread of the virus, including the suspension of air travel (except cargo flights), closing of national borders, curfew and asking all non-necessary businesses to work from home. All these measure have a direct impact on the national economy as some services and subsectors are being hit hard, especially the transport, travel sectors as well as the tourism industry which is the country's major source of foreign exchange earnings as a result of nationwide lockdown (Mold & Mveyange.2020).

However, with social distancing, home quarantine and remote working policies in place, the digital economy presents a viable route for mitigating economic losses in the short term and delivering on the efficacy of policy solutions. Today as businesses shift online, there will be an increase in demand for digital and digitally enabled services such as the demand for cloud computing services, digital payment platforms, and e-commerce. Further, through e-WTP (the electronic world trade platform implemented following the 2018 agreement signed by the Rwandan government and Alibaba group the Chinese giant of e-commerce.

The e-commerce industry has now the potential to offer to locals small and medium-sized enterprises almost instant access to the global market like never before. In addition, this also increased the popularity of Rwandan products and services such as coffee, fresh vegetables and tourism as we recently assisted to the online auction event of 1.5 tons of roasted Rwandan coffee beans¹ through Alibaba's e-WTP (Kuteesa, 2020). Therefore, this digital transformation requires an institutional and regulatory response in order to preserve personal data integrity and addressing public concerns in regard to market failure.

2. Focus on Rwanda's Digital Transformation Journey

The digital economy is playing a key role in Rwanda's response to the pandemic, with opportunities rising in the sectors of digital and digitally deliverable services; such as cloud computing, e-commerce and online work. This paragraph focuses on the Rwanda's ICT sector transformation journey, looking at some efforts done by the Rwandan government in adding value to the ICT sector and the digital economy.

Rwanda's digital transformation has been spearheaded by the Rwandan government deeply committed to leveraging ICT as an enabler of economic growth. Over the last five years, Rwanda access to international bandwidth has grown ten-fold. (World Bank, 2020) Internet access and speed are improving as 3G network coverage is now at 93.5% compared with a regional average of 76%, Further, Rwanda has also achieved an impressive 4G network coverage which stands at 96,6% an unprecedented level of coverage for a developing country.(. while the country has managed to expand digital infrastructure at an unprecedented level, however big gaps remain. Notably the official figures put internet penetration at 58% which is still low. Last but not least the affordability of handsets and broadband remains a key barrier as the costs are expensive comparing to average incomes.

Regarding the development of e-commerce sector ; the Rwandan government is committed to development of this sector and has put in place some policy and regulatory framework in order to fast-track the e-commerce in the country such as the legislation on electronic transaction , consumer protection and on intellectual property. In addition, the government provides services to both citizens and businesses through e-government portal such as *Irembo*.

Actually, the type of e-commerce in vogue in the country is business to clients (B2C) and this remains limited mostly to sectors related to booking of airlines tickets, banking, tourism and hospitality, food delivery, transport and couriers services delivery.

The most commonly accepted form of e-commerce payment is mobile money powered by mobile money platforms like MTN MoMo and Airtel Money. And more than 70% of payments done on *Irembo* portal are done via these mobile money platforms. However the e-commerce industry in Rwanda is relatively a nascent online market place, but the sector is experiencing a steady growth as some big international players have entered the Rwandan market such as the Chinese giant Alibaba.

3. Kenya Digital Economy Case Study

Kenya is renowned for innovative entrepreneurs launching new digitally-enabled services and creating 21st century jobs (UNCTAD, 2019). This achievement is based on diverse factors, one is the fact that Kenya has one of the most impressive rates of the mobile telephony services in Africa, as measured by subscriptions per 100 inhabitants surpassed the 100% mark to stand at 106.2% as at December 2018 (Communications Authority of Kenya 2019, Sector statistics report).but also the country has experienced an upsurge in the number of e-commerce platforms, and it's important to note that the growth of e-commerce has been underlined by the success of mobile payment platforms such as M-Pesa, Mula, Pesapal and M-shwari (Kenya Digital Economy Blueprint,2019).

In a 2016 report by the Kenya National Bureau of Statistics established that 39% of private enterprises are engaged in e-commerce, and this percentage continues to grow exponentially as currently most Kenyans businesses offer some form of digitized service, especially in the context of mobile payment platforms.in 2017, mobile technologies and services generated 1,29% of GDP and the value of the ICT sector expanded from Kshs 345.6 billion in 2017 to Kshs 390.2 billion in 2018, which represent a growth of 12.9%.

All of these factors clearly positioned Kenya as one of the world leaders in driving financial inclusion through the use of digital finance solutions with Mobile money platforms such as M-pesa, but also as a regional model of digital economy

4. Rwanda's E-commerce: Opportunities and Challenges

The digitalization of the economy create both opportunities and challenges. In the context of our country is the fact that one of the emerging sector of Rwanda's digital economy is the e-commerce. The e-commerce is actually taking off thanks to increasing demand for fast-moving consumer goods and entertainment electronics products (computing products and accessories, decoders, home theatres). E- Commerce main actors in Rwanda are mostly made of small and medium enterprises such as Kashia, DMM.Hehe, Vuba vuba, Yego cabs, Grocewheels, and move Rwanda deliver goods and services remotely to many. All of these e-commerce models of business and trade present new opportunities for entrepreneurship, innovation and job creation.

It is worth to note that e-commerce is particularly well-suited for SMEs. This because the greatest strength of SMEs is their agility, their ability to adapt to circumstances swiftly and efficiently. Small businesses can make the necessary changes to deal with rapid changes in technology and shifting conditions without too much bureaucracy.

Unfortunately, the vast majority of SMEs in the Rwanda digital economy are still struggling and have not yet took the full advantage of e-commerce opportunities because of various challenges as entrepreneurs cite often unreliable and costly power supply, lack of access to venture finance, limited logistics infrastructure, deficient transport, lack of commerce, the digital divide and cultural preferences, limited purchasing power, finally insufficient or inconsistent laws and regulations. Therefore, in order improve the competitiveness of Rwandan SMEs in e-commerce, it is necessary to understand the drivers of competitiveness according to their position in the broader economic context.

5. Proposals and their impacts on the competitiveness of Rwanda e-commerce Industry

Foremost, in order to improve the competitiveness of Rwanda's e-commerce it's necessary for Rwandan policymakers to understand the drivers of competitiveness and to identify the key determinants of competitiveness in e-commerce from the perspective of SMEs and according to the economic broader context of the country. Therefore, describe the e-commerce environment in terms of framework and determine the relevant issues to be considered when formulating a national policy. In fact, due to e-commerce's complexity, it is important to use a tool to capture its multi-faceted perspectives but also assess its different elements.

In this regard it is important to identify and tackle key issues which hampered the growth of the industry such as:

5.1. ICT Infrastructure: Rwandan SMEs need affordable and reliable ICT infrastructure. Despite some tangible achievements made by the Rwandan government such as the recent roll out of 4G high speed internet broadband coverage across the country, however this network remains very expensive and only few Rwandan small and medium enterprises can afford the cost. Other challenges include unreliable and costly power supply as Rwanda has the highest cost of power supply in the East African region (KPMG, 2013).

5.2. Payment Solutions: online and digital payments systems are rapidly evolving and are opening new possibilities for consumers and corporate buyers. However, it is important to remember there are number of real security threats, such as data transaction attacks, theft of financial information and personal data information. It is important e-commerce users benefit from an environment in which payments can be made safely and easily. By using effective solutions involving banking and non-banking operators with greater interoperability and universal connectivity (WTO Report, 2017).

5.3. Data Protection and Competition policies: digital markets are not a level playing field, but a competition between competitors with different backgrounds and capabilities to adapt to market dynamics or changes. For Rwandan digital platforms to benefit from the opportunities offered by the digital economy, the government and competition authorities should ensure that services providers make the best use of digital market and these benefits are passed on to the consumers (UNCTAD, 2019). Especially, through competitive policies to curb excessive concentration of market power in a handful of digital actors, which power they can use in price setting to stifle competition or using personal data to create artificial constraints through algorithmic manipulations. (UNCTAD, 2019)

5.4. E-commerce skills development: in many sub Saharan countries, both SME's actors and policymakers lack the ability and technical skills to properly harness e-commerce, thus hampering its uptake. However, through Smart Rwanda 2020 policy the country has undertaken several government projects to promote and develop e-skills among the population. The government now offers a wide range of public services electronically, such as the issuance of birth certificate or the transfer of land titles. Nevertheless, there is still a need for developing up to date technical skills

and SME's capabilities in order to improve their competitiveness in e-commerce (UNCTAD, 2016).

5.6. Digital issues and the digital divide: in this actual context of digital transformation, as data flows faster than ever. This comes with new opportunities such as fast transactions and communication, it also presents risks, such as cybercrime or intellectual property rights infringement (De Beer, 2013). Therefore, in this regard, it is imperative to set up the right rules and regulations that enables data flows and protects data to reduce cybercrime.

5.7. Access to financing for digital entrepreneurs: access to finance remains a challenge for many entrepreneurs, especially e-commerce related business faces substantive challenges due to the false perception by banks and lending institutions on the fact their business propositions are unquantifiable or cannot be assessable (Hope & Stuart, 2020) .

5.8. Trade issues: internet has fundamentally changed the way trade is conducted and e-commerce is rapidly developing.

Trade policies need to keep up with it, for example implications for international trade policy on issues of customs tariffs, facilitation of cross border trade, customs procedures and the need for common standards in regard to international payment solutions, .(UNECA, 2017,).

5.9. Intellectual Property Rights and regulatory frameworks: security and trust are fundamental to create certainty for both consumers and business, therefore consumer protection and consumer rights must be enforced simply because consumer protection cannot be left only to individual enforcement (Fenwick,2016). as this can lead to a situation of mistrust by consumer and to underdevelopment of e-commerce markets. In the context of Rwanda (UNCTAD, 2016), there is a flagrant vacuum of legal framework governing competition, consumer protection and consumer rights for e-commerce transactions. In addition, from a legal perspective several others laws must be enacted such as regarding personal data protection, data regulations, and intellectual property rights

5.10. Taxation of digital economy: this policy brief suggest that the Rwandan government need to set up a reflection group on taxation of the digital economy, as the country doesn't have a formal legal framework regulating the e-commerce sector, this reflection panel composed of multidisciplinary experts in domains such as taxation, technology, industry, law, and economics, with mission to provide the decision makers with a series of technical advice and expertise aims to reform corporate tax legislation so that profits are registered and taxed where businesses have recorded significant parts of their profits through digital channels.

6. Concluding remarks:

The global economy including Rwandan economy is experiencing rapid digitization which is characterized by the increasing use of advanced technologies in traditional economic sectors and the raw material underpinning the digital economy is data (Drahos & Braithwaite, 2002).

Data enables new business models to dominate markets through personally targeted advertisements across areas including logistics, agriculture, health or education. On the other hand, the value of digital behemoths is largely dependent on speculations of potential profits those companies can make out of the huge pool of user data. Therefore, understanding the value of data is essential to enabling policymaking on issues related to digital economy. To underscore the significance of this point, whereas the digital economy disrupts the ability of competition policy, laws and regulation enforcement to remain relevant in dealing with anti-competitive practices. The authorities need a clear understanding of entire value chain, especially of players, their business models and therefore the competitiveness of the markets.

A key message of this paper is that the digital economy is supported by enabling environment comprising of digital skills, policies and regulations that encourage development of ICT. And this can be achieved through implementation of effective policies that will alter country-specific conditions and contribute towards improving the investment climate, firm capabilities, national innovation systems and ICT infrastructure, finally participation in global value chains.

7. Recommendations:

In order to achieve the competitiveness of the Rwanda's e-commerce there is a need for more critical reforms, more investments and innovation. Among the policy recommendations;

Improving trade logistics by establishing physical supply chain and logistics services such as distribution centres, warehouses and payments points

Promoting e-commerce skills by investing in the development of human capital such as training of software engineers, entrepreneurs and digital technology developers

Investing in the development of entrepreneurial and managerial curriculum oriented to Rwanda specific market context.

Facilitating access to finance:Fostering on the delivery and access to affordable ICT infrastructure and services nationwide.

Creating appropriate legal and regulatory frameworks

Offering local payments solutions, as this constitute a key factor limiting the growth of the e-commerce SMEs, the lack of cross border payment solutions

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I am grateful to FES Rwanda and EPRN for graciously funding this work of research, the opinions expressed in this article are the author's own and do not purport or reflect the opinions or views of Friedrich –Ebert-Stifung Rwanda or EPRN, all errors, if any, are mine.

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