Institute of Policy Analysis and Research - Rwanda

RWANDA'S POST - COVID-19 ECONOMIC RECOVERY: *THE ROLE OF E-COMMERCE*

Summary

In common with other sub-Saharan African countries, the Rwandan economy has been hit hard by the COVID-19 Pandemic. The Government of Rwanda is rightly focusing on ensuring a rapid economic recovery. One policy area of focus, to help ensure rapid economic recovery, is expanding e-commerce – the use of online platforms to sell and buy products and services. This paper provides options for building on the existing Government of Rwanda policy on e-commerce and maximise its contribution to future economic growth.

The economic recovery challenge and e-Commerce opportunity

The scale of the post COVID-19 economic recovery challenge is large. GDP fell by 3.6% in the third quarter of 2020 following a fall of 12.4% in the second quarter (BNR, 2020). The World Bank estimate that GDP dropped by 0.2% across 2020 (World Bank, 2021). The Government of Rwanda (GoR) has responded decisively and substantially to the economic impacts of COVID-19.

An area which has received considerable attention is the potential for growth of e-Commerce. It is estimated that across sub-Saharan Africa, the potential size of the e-Commerce market will grow to 180 billion USD by 2025 and over 700 billion USD by 2050 – with a considerable increase from the 2020 figure of 115 billion USD (Google and World Bank, 2020). In Rwanda, the estimated growth is from 0.52 billion USD in 2020 to 0.97 billion USD in 2025.

Rwanda is well placed to exploit e-Commerce. Strong internet connectivity across the country, continued expansion of e-Government services, and priority attention from GoR, all support fast expansion. The COVID-19 pandemic has further increased the potential for e-Commerce, as both domestic and international purchases were increasingly made online (UNCTAD, 2021). Domestic e-Commerce has been particularly supported by the National Bank of Rwanda's (BNR) reductions in transaction fees (Carboni, 2021).

Five Key Policy Recommendations

Policy option 1 – Review transaction fees, potentially removing fees on small transactions or smoothing the transitions between fee amounts

Transaction fees have a role to play in e-Commerce – firms need to be rewarded in order to provide their service. However, they also act as a deterrent to transactions taking place. Therefore, it may be helpful for a **review of transaction fees to take place.**

One option for stimulating economic activity could be to exempt transactions on some small transactions. For example, on Person to Person (P2P) Mobile Money (MoMo) transactions, M-PESA in Kenya do not charge transactions that are under 100 KSH (around 940 Rwf). Equally, service providers in Rwanda like MTN and Airtel have charged zero fees on P2P transactions for short periods or as promotions to encourage customers, particularly during the first lockdown in early 2020. Given that there are many potential options for alternative fee schedules, trials could be conducted to identify the lowest transaction fees that could be profitably sustained by service providers.

Policy option 2 – Increase access to and use of smartphones

The barriers to greater smartphone use are complex. To ensure the increased use of smartphones, a package of measures could be used that increase access to smartphones, improve digital literacy, and allow more activities to be done digitally.

One option of increasing **access to smart phones** is to conduct another Connect Rwanda campaign. This would increase digital literacy as people become more familiar with the devices and could be linked to the National e-Commerce in Agriculture Value Chains Strategy 2021 – 2026.

The paper also strongly supports GoR's efforts to **increase a range of public services that are available through Irembo,** and therefore through smart phones. This will further increase trust in digital services. Over time this would likely increase the use of e-Commerce as people become more comfortable using digital services to demand and pay for different services, as well as having more developed digital skills. It would also increase smartphone purchases as people require smartphones to access public services.

Policy option 3 – Reduce the cost of internet and improving geographical coverage by improving the structure of the provider market

The current 4G network is adequate for smartphones and e-Commerce. However, costs are high, with internet users in Rwanda spending an average of 7.1% of income on mobile data (ITU, 2019). Since Rwanda already possesses some of the least expensive data options for mobile internet, lowering the cost for all would prove difficult but connecting the least connected villages or populations may be beneficial.

GoR could co-develop with Internet Service Providers a plan for even less expensive plans for rural communities. A targeted 'rural internet' is mutually beneficial for the company as the least connected individuals enter the market and increase revenue even if the profit margins were negligible.

Policy option 4 – Expand exports through e-Commerce: reduced friction

There is a case for additional seller protection to increase international financial transactions. At present, SME exporters using e-Commerce platforms selling directly to international consumers are not fully protected. For example, one risk for exporters is that their buyers can make fraudulent claims or attempt to cancel a purchase with their credit card company – a process known as chargeback. This fraudulent action may deter some sellers from entering the international market. In some countries like Botswana, Kenya, Mozambique, and South Africa, companies offer seller protection. **GoR could seek to acquire improved 'Seller Protections' for Rwandan transactions.** Acquiring these protections would connect Rwandan SMEs and the international community by an already established safe transaction method.

There is a case for **expansion of the use of RwandAir to offer subsidised airfreight space for new and small Rwandan exporters.** This is because transport costs are a substantial barrier for Rwandan exporters and the COVID-19 pandemic has significantly reduced demand for passenger air travel. Increased use of RwandAir could also take advantage of the African Continental Free Trade Area (AfCFTA).

An **agreement with an international courier for discounted rates to a selected city** could also increase e-Commerce by driving up exports. For example, GoR could agree to a deal to access consumers from a specific country who desire a unique Rwandan good. This could support SMEs in particular to enter the e-Commerce market.

Policy option 5 – Expand exports through e-Commerce: targeted support for new SME exporters

There is a case for expanded focus on supporting new exporters to use e-Commerce. Rwanda has well established policies to do this. For example, in the case of agricultural exports, the National Agricultural Export Development Board (NEAB) provides packages of support for new or early stage exporting businesses in priority sectors.

Within these priority sectors, the existing approach rightly emphasises the provision of a package of support for firms, which will help overcome the range of potential barriers to expanding exports. There is also a case for increased focus on e-commerce to help connect exporters to international markets – creating market linkages – and an opportunity to engage new and small exporters who may not be able to trade at volume to wholesalers.

Further research and analysis in this area could be useful. This might include:

a) A post-Covid market assessment to explore the pattern of **new business start-ups with the potential or ambition to access export markets.**

b) An **e-commerce Recovery Challenge Fund targeted at SMEs in priority sectors**. This could be based on the market assessment and comprehensively bring together the strong existing policies on promoting exports with the GoR's focus on e-commerce for maximum effect.

Policy dialogue to take proposal forward

This paper confirms that the Government has strong policies on e-Commerce. It also suggests some areas where there is some potential to further increase the use of e-Commerce. IPAR is suggesting these options as the basis for discussion with policy makers and, where necessary, amongst other key stakeholders. We look forward to further discussions with policy makers.

For more details on the policy recommendations and evidence used to formulate them, please see the full policy report. The report is based on both an underlying technical research paper produced by IPAR-Rwanda that can be provided on request, as well as feedback from officials.

A SETTING THE SCENE
The Economic Impact of Covid and the Potential of e-Commerce

In common with other sub-Saharan African countries, the Rwandan economy has been hit hard by the Covid-19 Pandemic. GDP fell by 3.6% in the third quarter of 2020 following a fall of 12.4% in the second quarter. The World Bank estimate that GDP dropped by 0.2% across 2020. The labour market has also been affected, with unemployment increasing from 13% to 22% between February and May 2020 (World Bank, 2021). Richard Tushabe, the state minister in charge of the National Treasury, recently told parliament that growth of 5.1% is expected this year before accelerating to 7.0% in 2022 and then an average of 7.8% in 2023-24, driven by robust activity in agriculture, industry, mining and construction.

The Government of Rwanda (GoR) has responded decisively and substantially to the economic impacts of Covid-19. The Economic Recovery Plan has been estimated to total 900 million USD over 2020/21 and 2021/22. This has included flagship measures to protect important parts of the Rwandan economy, such as the MICE sector. However, the pace of future economic recovery in Rwanda remains uncertain. Even a rapid global economic recovery may not feed through to Rwanda quickly – for example, because some key economic sectors are dependent on travel, or because of lasting potential reductions in productivity.

That is why it is right that the GoR is taking action across a range of policy areas which will support the economic recovery. One area which has received considerable attention is the potential for e-commerce.

The potential for growth of e-commerce has been widely noted. One estimate suggests that across sub-Saharan Africa, the potential size of the e-commerce market will grow to 180 billion USD by 2025 and over 700 billion USD by 2050 – this compares with the 2020 figure of 115 billion USD (Google and World Bank, 2020). In the case of Rwanda, the estimated growth was from 0.52 billion USD in 2020 to 0.97 billion USD in 2025.

The Covid-19 pandemic has increased the potential for e-commerce further. The pandemic has changed purchasing behaviour both in developed countries and domestically within Rwanda. Internationally, there has been a large shift towards online commerce (UNCTAD, 2021). And in Rwanda, consumers particularly in urban areas have looked for new ways to buy goods and services, especially following the National Bank of Rwanda's (BNR) reductions in transaction fees (Carboni, 2021). It has also led to innovation on the "supply side", with new platforms being developed and increased investment in e-commerce. For example, MTN Rwanda have recently created a subsidiary business that will focus primarily on mobile money services.

Now is a highly opportune time for policy makers to focus on e-commerce, to take advantage of the shifts in behaviour that has resulted from Covid-19. In the case of Rwanda, this means building from a strong existing set of policies to maximise the potential for expanding economic activity through e-commerce as part of the economic recovery post Covid-19.

Box 1: What is e-commerce?

An overall definition of e-commerce is that it covers all electronic processes by which individuals or organizations' make a transaction, such as buy, sell, transfer, or exchange products, services and/or information (Alyoubi, 2015, p. 479). Under this overall definition e-commerce transactions are categorized into nine options:

	Person (P)	Business (B)	Government (G)
Person (P)	P2P	P2B	P2G
Business (B)	B2P	B2B	B2G
Government (G)	G2P	G2B	G2G

The most common and important model is B2P: this model serves the same function as a traditional store or market, on online.

B2B is also important. The online wholesaler Alibaba is an example of an e-commerce company with a large B2B platform. With this model, businesses can purchase larger quantities of items through domestic or international channels at the most competitive prices.

For Rwanda, G2P is important too. Through Irembo many government interactions happen electronically. Going forward this can be an important way to increase the use of, and familiarity with, e-commerce.

B RWANDA'S STARTING POINT
Existing Policy and Government Vision

The last 10 years has seen rapid growth in the use of ICT devices, internet penetration, and mobile banking services in Rwanda (see Table 1). The GoR has emphasized the goal of transitioning to electronic transactions and mobile money. The National Strategy of Transformation and Vision 2050 highlight the need for "cashless innovation-friendly financial services" (MINECOFIN, 2020). The Rwanda National Payment Strategy 2018-2024 sets out detailed steps for how to transition towards a cashless economy and the GoR has already pioneered expansion of electronic government services through Irembo.

Rwanda is well placed to exploit e-commerce. Strong internet connectivity across the country, continued expansion of eGovernment services and mobile payments during the pandemic, and priority attention from GoR mentioned above all support fast expansion of e-commerce. The National E-Commerce in Agriculture Value Chains Strategy (2021-2026) also demonstrates how greater online activity will be encouraged in the Agricultural sector, building on top of the National Agriculture Policy's commitment to esoko and esoko+.

On top of a strong commitment from GoR to drive up use of e-commerce, uptake from the private sector will be key to widespread use of e-commerce that drives economic growth. Private businesses have demonstrated their willingness to drive innovations in e-commerce. For example Mobile Money Rwanda Ltd, the MTN subsidiary mentioned above, will increase competition with banks and likely reduce the cost of mobile money services to customers. Table 1 below shows an overall trend of key ICT indicators and the level of commitment for both public and private sector.

Table 1: Trends for key ICT indicators, 2012-2018

Indicators	2012	2016	2018
Internet penetration	8.4 %	45.5%	52.0%
Mobile-cellular phone subscriptions	40.1%	79.2%	82.1%
Mobile money agents	-	55,829	107,858
Mobile Payment subscribers	1,440,541	9,753,694	11,067,077
4G penetration rate	-	-	96.6%
3-3.5G penetration rate	-	-	93.4%
Number of debit cards	389,269	746,458	883,755
SMS transactions via Esoko	9,893	11,820	12,320
Number of Web-based transactions via Esoko	3,652	5,439	5,939

Source: MINICT, 2018

According to Vision 2050, the GoR is at the forefront of the SMART Cities and Communities project that entails establishing cities and communities that "Integrate shared ICT infrastructure and services." This implies a culture of innovation and leveraging ICT has to be embraced by Rwanda's institutions to enhance service delivery to both rural and urban communities. Even though Vision 2050 is silent about e-commerce, it sets a stage for developing a conducive environment for e-commerce, digital literacy programs, and designing a National policy framework for e-commerce.

Box 2: Methodology for this policy brief and IPAR Covid-19 Impact Survey

This policy brief on e-commerce is part of a series of research by IPAR-Rwanda on Covid-19 Impacts. It reviewed secondary data and builds on quantitative and qualitative data collected by IPAR-Rwanda across Kigali City districts (Gasabo, Nyarugenge, and Kicukiro) plus the six secondary cities since March 2020. Also, different documents were reviewed including (Made in Rwanda Policy 2017, National e-Commerce in Agriculture strategy 2021-2026, UNCTAD E-Commerce Index 2020, UNDP Covid-19 response 2020), and several other research work, and articles on e-commerce. The policy brief is also based on evidence from an IPAR-Rwanda technical paper which can be provided on request.

In addition, IPAR-Rwanda is running a survey aimed at producing: (i) Up-to-date and robust data on the impact of the Covid-19 outbreak on vulnerable households and MSMEs consisting of two cleaned and updated dynamic panel datasets variable at business and household level; (ii) Disseminating information clearly and accessibly to decision-makers and other stakeholders; (iii) Policy response proposals to the Covid-19 outbreak to improve the conditions of the household and businesses.

In total, 10,320 households and 1503 businesses were surveyed across Kigali and the six secondary city districts. Businesses were further categorized into three sectors namely the Service sector (501), industry sector (501), and Agriculture sector (501), and samples were selected in proportion to the size of formal and informal businesses within the sector.

Further research on the impact and response to Covid-19 will be published by IPAR-Rwanda in the coming months.

C BARRIERS TO EXPANDING E-COMMERCE Domestically and Internationally

If the potential of e-commerce is to be realized several potential barriers will need to be addressed. The International Trade Centre (2015) identified some of the most prevalent barriers to e-commerce throughout Africa. Rwanda has already addressed many of these. For example Rwanda already has some of the most widespread mobile network coverage in Sub-Saharan Africa. In 2018, four years after the partnership between the telecommunications company KT Rwanda Network and the Rwandan government, the country achieved 95% mobile coverage (Tashobya, 2018). In comparison, the entirety of sub-Saharan Africa only possessed 49% 4G and 75% 3G coverage by 2019 (GSMA, 2020). Kenya possesses one of the largest tech industries in Africa yet only maintains 24.2% 4G coverage across the country; 2G and 3G accounts for the rest of the mobile access (GlobalData, 2021).

Some barriers remain however, and these can be split into two broad categories – frictions and trust. According to the IPAR survey, culture is key to increasing trust in e-commerce and requires a range of sustained responses to address.

Barrier 1 – Frictions

According to Alyoubi (2015), developing countries need to be restructured to enable online payment mechanisms and credit facilities. For the success of growing the use of mobile money is a recommendable step and the GoR has made some progress with expanding mobile money during the Covid-19 pandemic. On 19 March, the National Bank of Rwanda instituted the following temporary measures with mobile money in an attempt to lessen the spread of Covid-19:

Table 2: BNR's Covid-19 Mobile Money Initiatives

Zero charges on all transfers between bank accounts and mobile wallets
Zero charges on all mobile money transfers
Zero merchant fees on payments for all contactless point-of-sale (via mobile) transactions
An increase in the limit for individual transfers using mobile money wallets, from Rwf 500,000 to Rwf 1,500,000

Source: Carboni, 2021

Analysis of the temporary measures showed that reduced transaction fees significantly increased mobile money transactions. During this period, the amount of money transferred through mobile means increased 450% while the number of individuals conducting the transactions rose over 200% (Mwai, 2020). Even with this success, the country still lacks the mobile money comfort of Kenya. Due to the rampant use of M-Pesa, over 98% of people who possess a bank account also have a mobile money account (Kibuacha, 2021).

These transactions have normalized using mobile money for basic transactions as well as sending and receiving between individuals. Moreover, the fees associated with P2P transfers returned effective June 2020 (Hope, 2020). The revised fees range from 20 Rwf for a maximum transaction of 1,000 Rwf, to 1,500 Rwf for a maximum transaction of 2 million Rwf. However, even though transactions of C2B (customer to business) were supported by the use of commercial codes, the informal markets and reliance on cash within the country meant many rural residents and 92.5 percent of informal businesses were more likely to continue using physical currency (Gashumba, 2019). To transition into a cashless economy, more revision for P2P fees from small transactions would help and smaller P2P fees incentivize both businesses and consumers to adopt mobile money as their primary transaction method. This could also have the effect of reducing the 1.6 billion Rwf, roughly 1.76 million USD, spent on printing money annually (Gashumba, 2019).

Access to cellular handsets is another potential barrier to e-commerce. Varying extremes of smartphone penetration appear to correlate with e-commerce demand and usage. The percentage of global e-commerce sales conducted through smartphones reached 72.9% in 2021, a significant rise from 39.1% in 2016 (Oberlo, 2021). These high percentages contain global e-commerce sales, including western countries where smartphone penetration can reach 80%. These numbers reveal that possession of a smartphone provides access to the internet leading to a high likelihood of e-commerce participation. Even though Rwanda has a high percentage of mobile connections per person (73.9%) this remains below other countries, for example Tanzania (82.7%) and Kenya (108.9%) (Kemp, 2021). Possession of mobile coverage proves irrelevant if the population does not possess cellular devices or mobile handsets.

However, this is a complex issue. To effectively increase the use of smartphones there need to be more reasons to want a phone in the first place, greater digital literacy in order to use the phones, and a change in culture towards greater trust of online transactions. These are explored in the policy recommendations section.

A further barrier is high shipping and transport costs, in particular for international transactions, smaller purchases, and when shipping internationally from SMEs. It is also a particular barrier for new and small exporters, who will not be able to negotiate discounted transport costs on their own (ITU, 2018). This may increase prices for international consumers and risks making the product uncompetitive. Various postal services and international couriers operate throughout Africa but are not likely affordable for the average person to use regularly. In many cases, shipping an item could easily surpass the cost of an item when shipping internationally. For example, as of 2021, the cost of shipping a 5kg parcel from Kigali to London exceeds 110 USD, not accounting for the potential VAT each country will likely charge (UPS, 2021). However, some opportunities exist to reduce airfreight costs through consolidating among shippers, paying less urgent forwarding rate, and sharing the cost of containers – these are explored in the policy recommendations section (ITU, 2018).

Barrier 2 – Trust

Rwandans are becoming more comfortable purchasing domestically but have concerns purchasing items from foreign markets due to concern about payments and receiving the exact quality item ordered online. This reluctance to conduct extensive business outside the borders likely hinders e-commerce growth. Additional options and securities are necessary in order to increase trust of international banking and online payments. The international e-commerce market is in its infancy in Rwanda but some import payments do occur. As of late 2020, most Rwandan importers transmit orders through email or phone and conduct payments through Western Union, MoneyGram, or DaHubShil (ITA, 2020).

A recommended step for e-commerce success is growing the use of mobile money and designing a secure and trusting environment are key in increasing digital demand and adoption to e-commerce platforms in particular for Rwandans purchasing from foreign markets. These recommendations are explored further in the next section.

D POLICY OPTIONS FOR CONSIDERATION

The Government of Rwanda is already focused on addressing these barriers. These include those set out in the Vision 2050 as well as the Rwanda National Payments Systems Strategy 2018 – 2024 and the National e-commerce in Agriculture Value Chains Strategy 2021 – 2026.

To go further to address the challenges identified above, some policy options for consideration include those listed below. IPAR present these options for debate and discussion with government. Many would require further scoping to analyse the exact parameters for policy.

Policy option 1 – Review transaction fees, potentially removing fees on small transactions or smoothing the transitions between fee amounts

Transaction fees have a role to play in the market through paying for the service, for example to develop and maintain e-payment software or to store data. However, they also act as a deterrent to transactions taking place. By increasing the number of transactions that take place, lower transaction fees will stimulate economic activity, which in turn will raise government tax revenue. It would also support GoR's vision for a cashless society. Therefore it may be helpful for a **review of transaction fees to take place, with the aim of finding the lowest possible transaction fee that could be profitably sustained by service provider companies.**

As stated earlier, evidence from BNR's response to Covid-19 showed that lower fees were associated with increased use of mobile money. Therefore one option for stimulating economic activity could be to remove transaction fees on small transactions. For example, on Person to Person (P2P) Mobile Money (MoMo) transactions, M-PESA in Kenya do not charge transactions that are under 100 KSH (around 940 Rwf). Equally, providers in Rwanda like MTN and Airtel have charged zero fees on P2P transactions for short periods or as promotions to encourage customers.

Another option would be to smooth the fees charged on different transaction amounts. As the table below shows, at certain ranges M-PESA transaction fees are higher than MTN Rwanda. M-PESA has more granular transaction fee bands, which can make fees more closely aligned to the size of the transaction. For example, currently both a 10,001 Rwf and a 150,000 Rwf P2P transaction pay the same fee, while a 150,001 Rwf transaction pays 1250 Rwf more than a 150,000 Rwf transaction. More fees bands would smooth the amounts charged and may encourage more transactions.

P2P transaction range (Frw)		MTN Rwanda	M-PESA Kenya (approximate exchange rate)
From	To	Fees	Fees
Below 1,000		20	Free
1,001	10,000	100	56 - 112
10,001	150,000	250	112 - 984
150,001	2,000,000	1,500	984

Given there are multiple options for adjusting transaction fees, further analysis or even trials run by the National Bank of Rwanda (BNR) could be an effective way to understand the optimal transaction fee schedule. This would allow BNR to identify which fees would have the greatest effect on increasing transactions and are therefore most worth reducing.

Now is an opportune time to review transaction fees as it could build momentum from increased e-payments during Covid-19 and link to the roll out of e-payments infrastructure as set out in the Rwanda National Payments Systems Strategy 2018 – 2024.

Policy option 2 – Increase access to and use of smartphones

The barriers to greater smartphone use are complex. Measures to address these barriers have effectively been implemented by the GoR. To continue to increase smartphone use, a package of measures could be used that increase access to smartphones, improve digital literacy, and allow more activities to be done digitally.

Increase access to smartphones by:

- Conducting another Connect Rwanda campaign to collect and distribute smartphones to unconnected people would increase smartphone penetration and improve overall connectivity. A further campaign would naturally increase digital literacy as people become more familiar with the devices. The campaign could also be linked to the National e-commerce in Agriculture Value Chains Strategy 2021 – 2026, in order to demonstrate the value of smartphones by providing an immediate reason for using them. A low fee for the smartphones might also be charged to people to help the campaign target people who are most likely to use the smartphones, rather than selling them.

- Encouraging or requiring telecom providers to offer devices for free or at a reduced price when purchased as part of a data/free content bundle.

Increase the use of existing smartphones by:

- Improving digital literacy by continuing to work towards the Vision 2050 targets of digital literacy for all by 2035.
- Irembo has been an effective way to build trust in digital services and by extension e-commerce. Continuing to increase the range of public services that are available through Irembo would further increase trust in digital services. Over time this would likely increase the use of e-commerce as people become more comfortable using digital services for important activities, as well as having more developed digital skills. It would also likely increase smartphone purchases as people require smartphones to access public services.

Policy option 3 – Reduce the cost of internet and improving geographical coverage by improving the structure of the provider market

Policies GoR are already pursuing will improve the market for internet services, for example as set out in the Rwanda National Payments Systems Strategy 2018 – 2024:

- Promotion of interoperability between telecom companies, financial institutions, payment system providers and data providers.
- Adoption of international payment standards, for example ISO 20022.

By addressing cost issues with the internet provider market, internet use can be increased further, leading to increased e-commerce.

The current 4G network is adequate for smartphones and e-commerce. However, costs are an issue, with internet users in Rwanda spending an average of 7.1% of income on mobile data (ITU, 2019). KTRN, the sole supplier of the 4G LTE, and third-party suppliers control the cost of access and options plans available for consumers. KTRN announced an unlimited and affordable smartphone data option to attract more users but these options did not last long (Sabiiti, 2019). By mid-2020, KTRN began exploring options to change the policies to improve the reliability of the internet and prevent users from tethering other devices (Kuteesa, 2020).

While KTRN set up the service, they license the broadband service to internet service providers (ISPs) for a set price. These companies then advertise and provide the internet at an increased cost for consumers. The ISPs are not drastically inflating the price for Rwandans, keeping the cost relatively low. Despite this, the cost is still too much for many rural residents.

Since Rwanda already possesses some of the least expensive data options for mobile internet, lowering the cost for all would prove difficult but connecting the least connected villages or populations may be beneficial.

The scenarios provide the opportunity for government intervention. Since the rural community, who do not often have the additional funds to purchase internet, the GoR could co-develop with ISPs a plan for even less expensive plans for rural communities. The rural populations outside Kigali are more likely to increase access if the cost is acceptable. A targeted 'rural internet' is mutually beneficial for the company as the least connected individuals enter the market and increase revenue even if the profit margins were negligible. It assists the Rwandans as they have better access to government programs, increases their digital literacy, and they will have access to e-commerce options.

To complete this, the GoR would require significant data and analysis on the location of these communities, what is an appropriate price point for this demographic, and oversight on managing this initiative. The goal would be to ensure only the most needed are benefiting from the program.

Policy option 4 – Expand exports through e-Commerce: reduced friction

Prior to the Covid-19 pandemic the Government of Rwanda was focused on expanding exports. In the agriculture sector they have set the objective of growing the value of agricultural exports to 1 billion USD by 2024. During the post-Covid period of economic recovery this focus on export-led growth will be critical. The expanded global use of e-commerce platforms for connecting exporters to international markets will need to be an even bigger part of Rwanda's future approach.

In recommendation 5, below, we discuss what this may mean for priority export products and sectors. In this section we discuss what this may mean for measures to improve the ease of using e-commerce platforms for exporting more generally, focusing on international financial transactions, transport logistics, and deals with international couriers.

International financial transactions

For either existing exporters or new, early stage, exporters to use e-commerce platforms to access new markets they will need to *trust* the payment systems. The GoR is already taking significant action on this, including through the Rwanda National Payment System (RNPS) Strategy 2018 –

2024. In the case of buyers, using e-commerce platforms to buy products, payment protection is in place. For example, online payment services like PayPal or Skrill offer "buyer protection" and the GoR has legal safety measures in place to protect consumers. The implication for GoR is that they could promote the already established 'buyer protection' capabilities offered by companies like PayPal and Skrill as well as their legal safety measure to protect consumers and ensure this protection is maintained.

With seller protection, however, there is a case for additional protection. At present, SME exporters using e-commerce platforms selling direct to international consumers are not fully protected. For example, one risk for exporters is that their buyers can make fraudulent claims or attempt to cancel a purchase with their credit card company – a process known as chargeback. This fraudulent action may deter some sellers from entering the international market. In some countries companies offer these forms of seller protection – it is the case, for example, in Botswana, Kenya, Mozambique, and South Africa. **GoR could seek to acquire improved 'Seller Protections' for Rwandan transactions.** Acquiring these protections would connect Rwandan SMEs and the international community by an already established safe transaction method.

One international example to learn from here is Kenya, where Safaricom and M-Pesa partnered with PayPal to acquire this status in 2018. Another option would be the partnership and adoption of the app Flutterwave. The other sub-Saharan countries which achieved seller protections with PayPal allow access to the app for SMEs and freelancers to conduct digital payments from PayPal users worldwide.

Improved transport and logistics – linked to the African Continental Free Trade Area

As discussed above another potential barrier to increased exports through e-commerce platforms is transport costs. Prior to the Covid pandemic, GoR was acting on this issue. RwandAir was offering discounted airfreight rates of 0.95 – 1.10 USD/kg, which were below rates applied in other airports in the region and other carriers operating in Rwanda, which is an average of 1.60 USD/kg. In addition to using the national carrier to reduce transport costs, existing policies included a coordination, which reduced the logistics burden on small exporters (NAEB, 2019).

There is a case for a substantial expansion of the use of RwandAir to offer subsidised airfreight space for new and small Rwandan exporters. This is for three reasons: first, as we have noted, transport costs are a substantial barrier for Rwandan exporters. Second, the Covid-19 pandemic has significantly reduced demand for passenger air travel, a demand shock which is likely to last for some time. This means that there is likely to be sufficient spare capacity on suitable refitted RwandAir planes. It also means that an expanded use of RwandAir in this way could support the financial sustainability of the national carrier, as well as support exporters through lower transport costs.

Third, there is an opportunity to take advantage of the African Continental Free Trade Area (AfCFTA). The program, which removes most tariffs amongst African countries, "aims to bring together 1.3 billion people in a $3.4 trillion economic bloc that will be the largest free trade area since the establishment of the World Trade Organization" (Bavier 2021). The agreement signed in 2018 officially launched in January 2021 but will take time to grow. Aside from the setbacks with Covid-19, one of the main concerns with the program is logistical issues with moving products. The use of RwandAir flying throughout Africa, and on an expanded range to routes beyond (Dubai, Guangzhou, London, Tel Aviv, Brussels), may be an opportunity for trade without facing the significant VAT barriers or increased shipping costs associated with trading in Europe, North America, or Asia. Using the national airline in this way would be part of Rwanda's broader strategy to take advantage of the AfCFTA.

Deal with international couriers

There have been attempts from international couriers to streamline costs for some countries in sub-Saharan Africa. In 2014, FedEx acquired various Supaswift shipping businesses in South Africa, Botswana, Malawi, Mozambique, Namibia, Swaziland, and Zambia. The company intended to "offer a complete suite of export, import and domestic solutions across Southern Africa" (FedEx, 2014). Despite their intentions, the cost to ship a 5kg parcel ship from either Johannesburg, South Africa and Lilongwe, Malawi, two of the larger cities in which FedEx expanded, to London is over 140 USD. The agreement may have lowered logistical costs across some southern African countries but it has not aided SMEs attempting to reach markets off the continent. Despite the difficulties, some opportunities exist.

One option would be to reach an agreement with an international courier for discounted rates to a select city. For example, suppose Rwanda finds consumers from a specific country desire a unique Rwandan good. In that case, the GoR could agree with one of the international couriers to be the sole shipper of that product. It would allow some SMEs to enter the e-commerce market. Additionally, it is mutually beneficial for the courier as it is guaranteed business and assists Rwanda with expanding e-commerce exports.

The intervention of linking with an international courier provides some challenges. It requires some coordination with VAT and tariff rules, but the planning process would be more straightforward. The GoR would likely need to draft agreements and contracts with the international courier and then promote the scheme to gain local SME participation. Since the courier aircraft are intended for cargo, they could ship larger quantities to potentially more locations.

Policy option 5 – Expand exports through e-Commerce: targeted support for new SME exporters

In addition to the crosscutting measures to reduce "friction" with e-commerce for international trade, increasing exports requires targeted support for specific companies. Rwanda has well established policies to do this. For example, in the case of agricultural exports the National Agricultural Export Development Board (NEAB) provides packages of support for new or early stage exporting businesses in priority sectors. The sectors include traditionally strong Rwandan exports – including tea and coffee – as well as newer sectors with growth potential, such as horticulture.

Within these priority sectors the existing approach rightly emphasises the provision of a package of support for firms, which will help overcome the range of potential barriers to expanding exports. This includes support across securing necessary investments; the quality of production and productivity of potential exporters; branding; freight and logistics costs (see above); and business incubation support. During the post-Covid recovery phase there is a case for expanding the focus on all these forms of support for SMEs with the potential to increase exports. There is, however, also a case for increased focus on e-commerce to help connect exporters to international markets – creating market linkages.

GoR have an excellent platform to build from. Plans already included using Alibaba's e-commerce platform for the sale of coffee and other products to China. The aim was already to increase market penetration beyond wholesalers (for example direct to small outlets such as shops, or direct to consumers).

In the light of the Covid-19 pandemic, and the boost this given to e-commerce globally, there is a case for expanded focus on supporting new exporters to use e-commerce. There is a particular opportunity for new and small exporters who may not be able to trade at volume to wholesalers.

Further research and analysis in this area could be useful. This might include:

a) A post-Covid market assessment to explore the pattern of new business start-ups with the potential or ambition to access export markets
b) An e-commerce Recovery Challenge Fund targeted at SMEs in priority sectors. This could be based on the market assessment and comprehensively bring together the strong existing policies on promoting exports with the GoR's focus on e-commerce for maximum effect.

E CONCLUDING REMARKS AND NEXT STEPS

The Covid-19 pandemic has had a significant impact on Rwanda's economy. This impact is likely to continue. The Government of Rwanda is rightly focused on developing policies which ensure a rapid recovery to pre-pandemic levels of economic growth and job creation. This will require a range of policy responses, including those set out in the Government's Economic Recovery Plan. However, one part of this recovery phase will be increased use of e-commerce. Even before the pandemic, this was an area with potential, but the pandemic has changed consumer behaviour – the worldwide move towards more economic transactions happening online has increased. Therefore, the Government of Rwanda is right to highlight e-commerce as an important part of their recovery plans.

This paper confirms that the Government has strong policies on e-commerce. It also suggests some areas where there is some potential to further increase the use of e-commerce. IPAR is suggesting these options as the basis for discussion within government and, where necessary, amongst key stakeholders. We look forward to further discussions with policy makers.

IPAR's future work on e-commerce and the wider economic recovery is being informed by substantial primary research. We will shortly be reporting the results of surveys of both households and businesses, assessing the impact that Covid-19 has had on them. These will be used to inform wider policy deliberations on how the Government of Rwanda can maximise the pace of economic recovery in this important post-pandemic period.

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