Bangladesh Trade Policy and Negotiation Capacity Building Support Project
Phase I

Leveraging E-Commerce in Bangladesh for Post-Crisis Recovery

Final Draft submitted to Ministry of Commerce, Bangladesh

Karishma Banga and Max Mendez Parra

February 2021

TRADE AND INVESTMENT ADVOCACY FUND

Contents

Acknowledgements

This report has been prepared under the Bangladesh Trade Policy and Negotiation Capacity Building Support Project Phase I supported by TAF2+. Dr Karishma Banga and Dr Max Mendez Parra are Research Fellows from the Overseas Development Institute

The authors would like to thank Dr Zaidi Sattar and Dr Rahim Khan for peer review and comments. They are also grateful for insights provided by Abdul Wahed Tomal, General Secretary of the E-Commerce Association of Bangladesh, and Md. Hafizur Rahman, Director General, WTO Cell, Ministry of Commerce.

The views in this note are the responsibility of the authors alone, and do not necessarily represent those of ODI, PRI, DFID or TAF2+.

Acronyms

ADB	Asian Development Bank
BASIS	Bangladesh Association of Software and Information Services
B2C	business-to-consumer
B2B	business-to-business
B2G	business-to-government
BEFTN	Bangladesh Electronic Funds Transfer Network
BGMEA	Bangladesh Garment Manufacturers and Exporters Association
C2C	consumer-to-consumer
e-Cab	e-commerce Association of Bangladesh
EU	European Union
FDI	foreign direct investment
FY	fiscal year
GDP	gross domestic product
ICT	information and communication technology
IFC	International Finance Corporation
IP	intellectual property
IPR	intellectual property rights
IT	information technology
ITC	International Trade Centre
ITU	International Telecommunication Union
LDC	least developed country
LPI	Logistics Performance Index
MFS	mobile financial services
MM	mobile money
MOC	Ministry of Commerce
MSMEs	micro, small and medium enterprises
NAWG	Needs Assessment Working Group
NPSB	National Payment Switch Bangladesh
NRI	Network Readiness Index
OECD	Organisation for Economic Co-operation and Development
PTA	preferential trade agreement
RMG	ready-made garments
SMEs	small and medium enterprises
UNCTAD	United Nations Conference on Trade and Development
US	United States
WDI	World Development Indicators
WEF	World Economic Forum
WTO	World Trade Organization

Executive Summary

E-commerce has emerged as an important pathway to mitigate the economic effects of Covid-19, which is expected to wipe out $5–10 billion of Bangladesh's $300 billion-plus economy (The Financial Express, 2020). The textile and garments sector in Bangladesh has been particularly hard hit, with the country's apparel exports declining by 17% in the just-concluded fiscal year.

E-commerce's contribution to gross domestic product in Bangladesh is estimated at 0.2%, with the sector focused on business-to-consumer (B2C), business-to-business (B2B) and consumer-to-consumer (C2C) business strategies. Roughly 90% of e-commerce is B2C, with f-commerce (e-commerce through the virtual marketplace in Facebook) emerging as the most prominent channel. There are an estimated 2,500 e-commerce websites, selling products worth over $2 billion, with more than 300,000 stores operating through Facebook. The e-Commerce Association of Bangladesh (e-CAB) estimates that, of the total workforce in the sector, 26% are women and 74% are men.

With the B2C e-commerce index score at 39 for the year 2019, Bangladesh lags behind many developing countries, including India (57), Kenya (49) and Nigeria (53.2), but fares better than Nepal, Pakistan and Cambodia. Its B2C e-commerce index value is lower than the average in the East, South and Southeast Asian region (57) and the world average (55). Bangladesh is currently lagging behind on key enablers of e-commerce such as internet and account penetration.

There has been 70–80% growth in online sales during the pandemic as compared with regular times. Some types of e-commerce platforms – such as online groceries and food deliveries – have witnessed a significant growth in orders, with wholly digital businesses faring better. The negative supply shock in manufacturing and services sectors has created incentives for firms to switch to online sales channels. Of 500 micro, small and medium enterprises surveyed, 9% have increased use of or started using the internet, social media, specialised apps and other digital platforms in their daily business operations as a response to the pandemic.

Some platforms, such as third-party logistics suppliers, have suffered from supply-side shocks such as labour shortages, the initial collapse of the postal delivery system and suspension of manufacturing operations in production houses in key neighbouring partners India and China. There are approximately 550,000 freelancers in Bangladesh exporting e-commerce or related services, predominantly to clients in North America and in Europe. Containment measures (working from home and national lockdowns) imposed by these economies as a response to the pandemic, and the resultant stagnation in business growth, are likely to have reduced outsourcing to Bangladeshi firms.

Digital access is an important enabler of e-commerce. Currently, internet penetration stands at a low 15% in Bangladesh. Mobile internet remains the most prominent form of internet access in Bangladesh but less than 60% of the population is covered by a 4G mobile network. At 3.56 Mpbs, the average pre-Covid download speed in Bangladesh was already lower than that of many of its comparators; it suffered a further 21.7% decline during the lockdown period between March and May. Overall, mobile internet subscribers fell by 0.3% in Q2 of 2020 as a result of lockdowns and difficulties in topping up for pre-paid customers. Slow adoption of 3G and 4G is explained by high cost of data; 1 GB of data costs $0.70 in Bangladesh compared with $0.09 in India. The price of a month of business broadband connection is $182.

Another key enabler of e-commerce is mobile financial services (MFS) and a reliable online payment system. Compared with other countries in the region, Bangladesh fares well on internet banking: 33.5% of the male population and 11.5% of the female

population uses a mobile phone or the internet to access an account, higher than in India, Cambodia, Myanmar, Nepal and Pakistan. Bangladesh also fares better than other Asian comparators on digital payments made or received. As a response to the pandemic, further government support has been directed towards MFS, including increasing monthly and daily transaction limits on contactless debit and cards, waiver of charges on withdrawals and permission for advance payments against imports under buyers' credit. The notable surge in inward remittances (up 40%) in the first half of FY21 is in large measure the direct outcome of the relaxation of rules and wider coverage of MFS.

Improvements are needed in trade facilitation and logistics. Bangladesh fares better than comparators in terms of coverage by the postal network but lags behind on reliability of postal services; there are cases of online fraud, low trust in advance payments, dominance of cash on delivery models, damaging of parcels and problems with physical addressing, particularly in rural areas.

There is a need to link e-commerce with trade promotion. There is much scope for a cross-border e-commerce policy addressing issues of interoperability, digital trust through escrow services, data flows and privacy, consumer protection, etc. The interoperability of locally available MFS solutions with international payment systems, particularly the regular banking system, can facilitate cross-border e-commerce. At present, it takes one day for a merchant in Bangladesh to receive payment for domestic e-commerce but five days for cross-border e-commerce. While, Bangladesh has an active law on electronic transaction, consumer protection and cyber-crime, there is no regulation or law for data flows, protection or privacy. There are gaps in the current consumer protection act in terms of online dispute resolution, and regulatory gaps regarding intellectual property (IP) and data flows, which are important for cross-border transactions.

The Action Matrix below summarises actions for the short and medium to long term to leverage e-commerce for post-crisis recovery. It is key to note that, while the pandemic has given a boost to e-commerce, it could exacerbate existing digital divides if appropriate actions are not taken. Around 27% of people in Bangladesh do not know how to use a basic mobile phone; less than 25% of people aged 15–65 in Bangladesh are aware of e-commerce platforms; and only 10.3% of the population actually has the skills to purchase goods and services via the internet. The digital divide is also clear across genders: around 58% of women in Bangladesh own a mobile phone vs. 87% of men; similarly, 7% of women access the internet vs. 18% of men (a 62% gap). While 47% of the male population is engaged in digital payments, the figure for the female population is only 21%. The effects of the gender mobile internet and usage gap are further seen during the Covid-19 pandemic: 43% of women, as opposed to 57% of men, received timely information on Covid-19 support.

Table ES1: Action Matrix for leveraging e-commerce for post-crisis recovery

	Short term	**Medium to long term**
Digital access	• Provision of short-term, affordability-improving services such as zero-rated access to essential content and promotion of mobile internet usage through reduction in taxes, duties and fees on mobile communications • In addition to the existing passive infrastructure-sharing in the country, publication by the Bangladesh Telecommunication Regulatory Commission and the government of regulatory guidelines for *active* infrastructure-sharing through mobile virtual network operation licences	• Reduction of the gender digital divide in mobile ownership and access to and use of internet through targeted interventions focusing on increasing awareness of e-commerce, digital skills development and digital financial inclusion for women • Improvements in affordability of data by including a provision for the roll-out of free and public digital access in the existing national broadband plan

	Short term	**Medium to long term**
Improving e-commerce and trade logistics	• Facilitation of a fully online system for securing a business broadband connection	• Increasing reliability of postal services and improving the addressing system, particularly in rural areas, through digitalisation of postal and delivery system, for instance electronic tracking of parcels
Increasing digital trust for domestic and cross-border e-commerce	• Amendment of the CPA 2009 with provision to address e-commerce related concerns for consumer protection such as online dispute resolution. • Integration of payment systems with f-commerce models and into a single switch so there is interoperability	• Amendment of the Digital Security Act 2018 to account for issues around IP in e-commerce such as protection of domain names for e-commerce websites • Developing escrow services to create trust between buyers and sellers, particularly for B2B transactions • Developing a data protection act to address issues on the cross-border flow of data, data collection, processing, sharing and storing
Improving the link between e-commerce and trade	• Improving implementation of the Digital Commerce Policy by introducing standard operating guidelines or law	• Connection of initiatives for trade promotion efforts in priority sectors such as tourism, pharmaceuticals, apparels/jute and food processing with e-commerce-based business models (UNCTAD, 2019) • Development of a cross-border e-commerce trade policy that addresses laws and rules for managing the collection and use of data, online dispute resolution, digital trust, digital signatures, electronic transactions, etc. • Facilitating the receipt of cross-border online payments, which currently takes five days, higher than in other countries. This can be done through interoperability of locally available MFS solutions with international payment systems, particularly the regular banking system (UNCTAD, 2019)
Skills	• Introduction of formal structure of apprenticeships in e-commerce companies	• Better collaboration between academia and the private sector, particularly e-commerce companies

Source: Authors

1. Introduction

The Covid-19 pandemic in Bangladesh, as in the rest of the world, is expected to substantially reduce gross domestic product (GDP) in 2020. In, FY2020, GDP growth was 5.2%, down from 8.15% in FY19, and projected growth for FY20 was 8.2% (The Financial Express, 2020). Economic impacts of the pandemic in Bangladesh have been felt mainly through a drop in domestic economic activity after shutdown was announced and a decline in exports of ready-made garments (RMG). The textile and garments sector has been particularly hard hit: apparel exports declined by 17% to $27.83 billion in the just-concluded fiscal year as the pandemic took a heavy toll on the global clothing demand and supply chain (Ovi, 2020). According to the Bangladesh Garment Manufacturers and Exporters Association (BGMEA), by March 2020, approximately 1,082 factories had reported cancellation of 933 million export pieces, worth $2.95 billion (Al Fattah, 2020). The Asian Development Bank (ADB) has estimated that the Covid-19 pandemic could wipe out $3.02 billion of Bangladesh's $300 billion-plus economy (The Daily Star, 2020a). Around 0.2% to 0.4% of Bangladesh's GDP may be lost as a result of spillover effects of the pandemic. Around 16 million jobs – a third of the total workforce – have already been lost in the country since March 2020 (Sayem, 2020).

Covid-19 has already accelerated supply chain digitalisation in developed markets, particularly in terms of use of digital platforms for sourcing and delivery. E-commerce is increasingly emerging an important channel to mitigate economic losses from the pandemic. Globally, there has been a spike in business-to business (B2B) and business-to-consumer (B2C) sales, particularly in medical supplies, household essentials and food products (WTO, 2020a). Demand has also increased for internet and mobile data services. Rising e-commerce can offer important opportunities for women-led micro, small and medium enterprises (MSMEs) to enter the export market. Given that women constitute majority of the garment sector labour force in Bangladesh, they are disproportionately affected.

However, e-commerce is also hit by supply-side disruptions – labour shortages, administrative and regulatory bottlenecks and quarantine conditions – and indirectly though suspension of manufacturing activity, decreased production and new health regulations, which have led to disruptions in land, sea and cargo transportation (WTO, 2020a). Cancellation of passenger flights that were typically used to transport postal shipments and other small consignments has significantly reduced transport capacity and increased shipping prices for cross-border B2C and B2B transactions. Commercial B2B e-commerce relying on large-scale imports via maritime transport has also been affected.

Given this, this paper overall attempts to understand scope of e-commerce in Bangladesh's post-crisis recovery. It does this by examining three key aspects:

1. the current potential of e-commerce; existing e-commerce models; and enablers and challenges to e-commerce in Bangladesh
2. effects of Covid-19 on the e-commerce sector in Bangladesh; sectors/segments that are seeing a rise in new e-commerce opportunities; challenges facing new entrants amid the pandemic
3. policy priorities to leverage e-commerce in post-crisis recovery (e.g. digital access, online payments, online fraud, etc.).

Section 2 sets out the development context of e-commerce, and Section 3 the national and international policy context for promoting digital trade and e-commerce in Bangladesh. Section 4 presents the current state and scope of the e-commerce market in Bangladesh. Section 5 discusses existing enablers and challenges to e-commerce uptake in the country, with Section 6 identifying the supply- and demand-side effects of Covid-19 on e-commerce in Bangladesh. Section 7 concludes the study with an Action Matrix highlighting policy priorities in the short, medium and long run.

2. Development Context of E-Commerce

Electronic commerce is broadly defined as the production, marketing, sale and/or delivery of goods and services via electronic means (OECD, 1997). Leveraging e-commerce and related policies on inclusive finance and payments is key to post-Covid recovery. Below, we highlight some key development dimensions of e-commerce or pathways of impact:

- E-commerce platforms are important mechanisms for reducing the cost of exchange within the informal economy, boosting its productivity. These platforms offer employment opportunities to previously disconnected households; connect low-productivity segments with firms with higher productivity; and link people to more formal parts of the economy across sectors and geographies (Pathways for Prosperity, 2018).
- E-commerce growth can lower barriers to entry, creating new opportunities of growth for the rural sector. For instance, e-commerce platforms in China, such as Tmall.com and JD.com, have become available to use even in remote rural villages, and evidence shows that they have led to lower consumer prices and higher wages in these areas (Fan et al., 2018). Overall, it can enable a more spatially integrated, less segmented and more inclusive economy.
- E-commerce can be an important pathway to market access, particularly for MSMEs. Given that most small size firms have a very limited capital base, the potential of e-commerce and the use of the electronic marketplace provide opportunities for reaching customers in distant markets without the costs of establishment or the use of intermediaries (Broome, 2016).
- E-commerce and digital applications are also promoting empowerment of women through setting up entrepreneurs and creating decent employment opportunities and access to information and communication technology (ICT)-enabled financial services. It is becoming increasingly important to increase the exports of developing and least developed countries (LDCs) (UNCTAD, 2017) by significantly reducing trade costs and improving competitiveness.
- There is a clear need for export diversification in Bangladesh: seven of the country's top ten export products are related to apparel and clothing. Moreover, 73% of its total $34.13 billion RMG export earnings comes from just five items: t-shirts, sweaters, trousers, jackets and shirts (Sayem, 2020). E-commerce can be an important channel for export diversification. When it comes to e-commerce in Bangladesh, apparel remains a top category but accounts for a much smaller share. Only 47% of all purchase inquiries on Alibaba.com received by sellers from Bangladesh are related to apparel. Other products, including agriculture (6%), food and beverages (5%) and consumer electronics (5%), also receive a significant number of inquiries (ITC, 2018).
- There is also evidence of diversification in terms of export markets: the US is the largest market in both offline and online trade of Bangladesh, with a 16% share of overall exports and 14% of all purchase inquiries. But, while European countries dominate the rest of the offline market destinations, these are replaced by Asian economies in online trade (ITC, 2018).
- Economic benefits and cost savings realised through e-commerce – including through higher market access and improvements in productivity – can contribute to job creation directly. Growth in e-commerce can also boost employment in other sectors, including IT, postal and delivery services. Wider coverage of e-commerce in the economy makes it more productive and dynamic, though measuring its real contribution to the economy's GDP remains theoretically an unresolved issue.

The development of 'national e-commerce platforms' can make an overall important contribution by improving the domestic and international market access of their producers. Public–private partnerships could be encouraged to form national e-commerce platforms to

boost domestic as well as cross-border e-commerce, and use the data analytics of the engaged customers to forecast future demand and changing tastes and preferences. Linking domestic producers to national e-commerce platforms can also be made part of national trade promotion schemes.

However, leveraging e-commerce in developing countries is usually constrained by the absence of a coherent regional regulatory framework, the high cost of infrastructure such as postal competence and port logistics, limited financial instruments, a lack of stakeholder buy-in and generally challenging business environments and an overall digital divide. In many of these countries, the primary channel of e-commerce is through mobiles, also known as mobile commerce. However, the mobile connectivity index in Bangladesh is only 48 – lower than that of Kenya (50.8), Sri Lanka (54.3) and India (55.6) (GSMA, 2018).

Similarly, while developing countries are striving to develop their national e-commerce policies/strategies for linking their domestic producers and consumers to e-commerce platforms, there is a need to recognise the associated risks, especially if these platforms are international. The 'network effects' of some international platforms can allow them to gather huge amounts of data on the connected economies, which these international platforms can then use to predict market trends, flood consumers with products associated with their tastes and preferences based on their personal data analytics, and effectively reorganise national production and sales. This would require re-examination of fiscal and competition policies. Longer-term effects of consumer pricing models in the platform age for developing economies need to be examined. At present, the dominant approach in antitrust policies uses the consumer welfare standard, which is based on measuring benefits or harm to consumers in the form of lower or higher prices, respectively. However, this approach is not suited to assessing the impact on competition of some business models used by global digital platforms that provide services for free (Stucke and Grunes, 2016; Khan, 2017).

Therefore, the uptake of e-commerce is dependent not only on the updating of e-commerce legislation and regulations but also on related regulations for expanding digital connectivity, digital financial inclusion and ICT skills development and policies on data privacy, consumer protection, cyber-law, online dispute resolution, competition and taxation, etc. We explore these further in the next section.

3. Policy Context

Bangladesh is making important strides towards the digital economy, with the 'Digital Bangladesh' initiative forming a central part of Vision 2021. Although e-commerce is still in its early stages in the country, consumer adoption is gradually picking up as a result of strong engagement of the private sector in informing policy-making. This owes to a range of initiatives since mid-2000s.

3.1. National Policies

Since the mid-2000s, several policy efforts and initiatives have contributed towards development of e-commerce in the country. Table 1 provides a timeline of key policies and events in the period 2006–2020.

In 2006, the ICT Law was established, covering important security issues related to electronic transactions, cyber-crime, online fraud and online content regulation. Overall, it provided a legislative framework for business to conduct transactions online but was criticised for not addressing key issues related to e-commerce, such as intellectual property (IP) and online payments. Major policy changes occurred in the period 2009–2013, particularly related to online payments, with Bangladesh Bank allowing online payments in the country in 2009. This was followed by creation of a modern payment system, the Bangladesh Electronic Funds Transfer Network (BEFTN), in 2011, and launch of a National Payment Switch Bangladesh (NPSB) system for attaining interoperability in 2012. The year 2013 was an important one for e-commerce progress; for the first time, the Bangladesh Association of Software and Information Services (BASIS) and Bangladesh Bank jointly conducted E-Commerce Week, supported by the ICT Business Promotion Council.[1] Moreover, the ICT Act of 2006 was amended to include fines/punishments for cyber-crimes, in addition to Bangladesh Bank permitting e-commerce in the country using international credit cards.

Significant developments have taken place since then, including the introduction of PayPal in the country in 2017 (bdnews24.com, 2017) and the acquisition of the Bangladeshi e-commerce platform Daraz by Alibaba in 2018. In 2018, a Digital Commerce Policy[2] was drafted with important provisions to facilitate e-commerce, including the requirement for e-commerce companies to clearly state the details of the products they sell online, which include the product's quality along with its return policy. E-traders will also have to sign a deal with the product suppliers, delivery channels and payment gateways to ensure that customers' rights are appropriately protected. Earlier, the policy allowed for 49% of foreign direct investment (FDI) in the e-commerce sector, but this was amended in 2020, to allow 100% FDI.

Moreover, in 2019, the National ICT Policy of 2015 was updated and put in effect. This policy focuses on multiple pillars: digital government, digital security, social equity and universal access to education, research and innovation, skills development and employment generation, strengthening of domestic capacity to cope with the changes of emerging technologies, etc. (UNCTAD, 2019). As a response to Covid-19 in 2020, the Government of Bangladesh introduced a series of initiatives to further promote e-commerce, particularly through improvements in mobile and digital payments. In April 2020, Bangladesh's central bank instructed banks to open mobile financial services (MFS) accounts for all workers of export-oriented companies to facilitate disbursement of salaries and government allowances. Around 15 banks are now providing MFS, with 28.2 million active MFS accounts.[3] E-commerce sellers in Bangladesh can receive payments using different

[1] https://www.josbd.com/potentiality-e-commerce-bangladesh/
[2] https://e-cab.net/resource-center/bangladesh-e-commerce-sector/
[3] https://www.trade.gov/country-commercial-guides/bangladesh-ecommerce

payment methods, like international cards, online payment gateway service providers, digital wallets and other legitimate payment systems licensed by the regulatory authorities concerned. In December 2020, Bangladesh Bank further simplified the rules for cross-border retail exports under e-commerce by allowing B2C export through e-commerce websites under cash on delivery or payment on shipment terms (New Age, 2020).

Table 1. Key policies and event in the e-commerce history of Bangladesh

2006	The ICT Act established the legal basis for digital transactions in the country and a comprehensive e-government network.
2009	Bangladesh Bank introduced an online payment system facilitating fund transfers and online payments of utility bills by credit card.
2011	The BEFTN, a modern payment system, was created.
2012	The NPSB was launched, to attain interoperability among schedule banks for card-based/online retail transactions.
2013	Bangladesh Bank permitted the purchase and sale of goods and services online using international credit cards. The ICT Act of 2006 was amended to include provisions for imprisonment and/or fines for cyber-crimes.
2017	Bangladesh's central bank gave permission to state-owned Sonali Bank to launch online money transfer services with PayPal in the country.
2018	Alibaba Group acquired Daraz Group, one of the leading e-commerce companies in Bangladesh. The Digital Commerce Policy was drafted; 49% of FDI was allowed in the e-commerce sector.
2019	The National ICT Policy of 2015 was updated.
2020	The Digital Commerce Policy was amended; 100% FDI was allowed in the sector. MFS services were expanded and online payment systems for cross-border retail were simplified during Covid-19.

Source: Authors, constructed from various government documents

3.2. Bangladesh's Position on E-Commerce Issues at the WTO

Globally, the regulatory environment for digital trade has been crucially shaped by preferential trade agreements (PTAs); of the 346 PTAs entered into in the period 2000–2019, 184 contain provisions relevant for digital trade, with 108 PTAs having specific e-commerce provisions and 78 having dedicated e- commerce chapters (Burri and Polanco, 2020). Negotiations on a multilateral agreement or on rules for e-commerce have not yielded any consensus, leading to the digital trade agenda being pushed largely through bilateral and regional trade agreements, with a subset of interested members in the World Trade Organization (WTO) continuing to pursue a plurilateral agreement on e-commerce. Critically, the norms that are established in these smaller groupings can strongly influence the evolution of future multilateral agreements (Banga et al., 2021). The digital trade negotiations can therefore have a crucial impact on developing countries and LDCs.

Some issues related to e-commerce, such as paperless trading and digital signature, are less contentious in the negotiations; others, such as data localisation, cross-border flow of data and moratoria on electronic transactions, are more controversial. Another key outstanding issue is the classification of e-commerce products (goods and services); some e-commerce goods may be digitalised (e-books and video games) whereas others are tangible goods ordered electronically; there are also electronically traded services (cloud computing, software management, etc.), often protected by intellectual property rights (IPR).

Regulations on data flows are critically linked to e-commerce. A key proposal advanced by a range of developed economies, including the US and the EU, at the WTO is free cross-border data flow and no requirement for data localisation – that is, storage of data on domestic servers. Advocates of this proposal argue that data localisation requirements can

increase the cost for an investing firm/country. However, some developing countries at the WTO – especially the Africa Group and India – have been vocal in resisting the free cross-border flow of data, pointing out the need to first build national capabilities (WTO, 2017), including thinking through data ownership frameworks, policy support for internet access, incentives for small and medium enterprise (SME) online participation and building digital infrastructure. India and South Africa have further expressed concerns about the revenue implications of the moratorium (WTO, 2020b). The LDC Group, of which Bangladesh is a key player, has raised several concerns in its statement on the work programme and the moratorium on E-commerce (WTO, 2019)[4]. These include limited knowledge on e-commerce across stakeholders; lack of mechanisms to start up e-commerce businesses; limited access to and affordability of ICT infrastructure, credit cards, banking and online payments; limited physical infrastructure for deliveries of online purchases; low consumer digital trust; limited trade finance for LDC e-commerce enterprises; limited skills for e-commerce; weak legal and regulatory frameworks (e.g. lack of consumer protection laws); and lack of clarity on the nature of electronic transmissions and the ability of LDCs to apply internal taxes versus customs duties (ibid).

[4] WT/GC/W/787; work programme and moratorium on electronic commerce: communication from Chad on behalf of the LDC group

4. State of E-Commerce in Bangladesh

The above section clearly demonstrates developments on the policy front to bolster e-commerce in Bangladesh. This section scopes out the potential and size of the existing e-commerce market in the country.

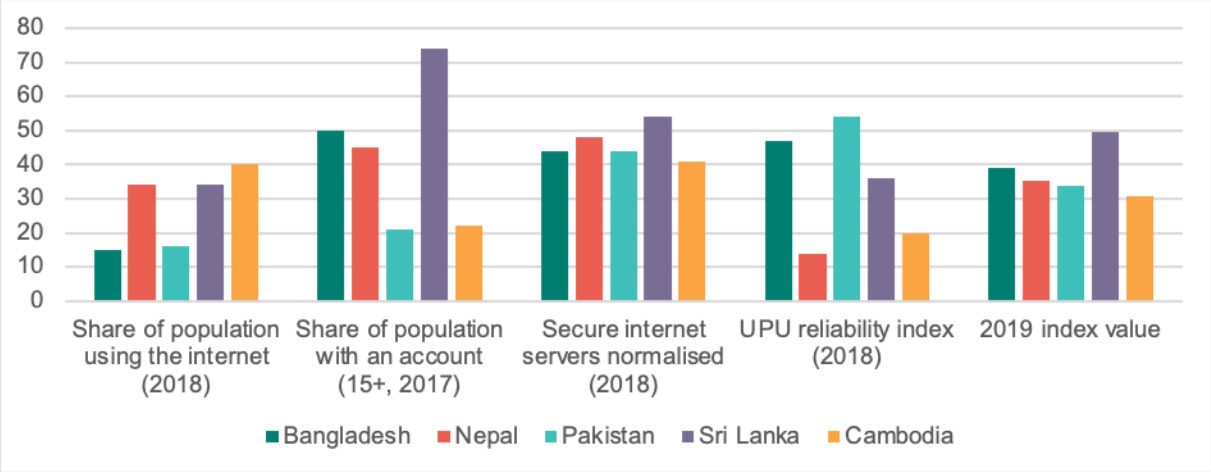
In terms of revenue from e-commerce, Bangladesh ranks 46th globally; growing smartphone penetration and popularity of 4G networks along with the increasing purchasing power of consumers is driving e-commerce in the country (LightCastle, 2020a). The e-commerce sector in Bangladesh began to flourish in 2013, with Bangladesh Bank lifting its previously established restrictions on international purchases via consumer credit cards, followed by Alibaba acquiring Daraz Group, one of the leading e-commerce companies in Bangladesh, in 2018 (LightCastle, 2020b).

As per the United Nations Conference on Trade and Development (UNCTAD) e-trade assessment, Bangladesh has made good progress towards e-commerce development; nationwide coverage of mobile services is increasing with 2G (near 100% coverage), 3G (undergoing rapid roll-out) and 4G networks (primarily in the capital and other major cities), while 5G services are being tested as a growth mechanism for the medium term (UNCTAD, 2019). Development initiatives such as the innovative Ek Shop model have facilitated aggregation of e-commerce websites by leveraging e-government structures – namely, the Union Digital Centres (8,000+) and the vast ICT network established to support e-government operations (ibid.). The network also involves order facilitation through the post office delivery system as well as private sector logistics firms, which has facilitated market development for e-commerce firms while at the same time allowing consumers to access a variety of online services.

4.1. E-Commerce in Bangladesh vs Comparators

Figure 1 compares Bangladesh to other countries in the region. At rank 103, Bangladesh fares better on the B2C index than Nepal, Pakistan and Cambodia but is lagging behind Sri Lanka. It is doing relatively well on the components of postal reliability and secure internet server penetration but lags in terms of internet and account penetration. With a B2C e-commerce index score at 39, Bangladesh lags behind many other developing countries, including India (57), Kenya (49) and Nigeria (53.2). Its B2C e-commerce index value is also lower than the average in the East, South and Southeast Asian region (57) and than the world average (55).

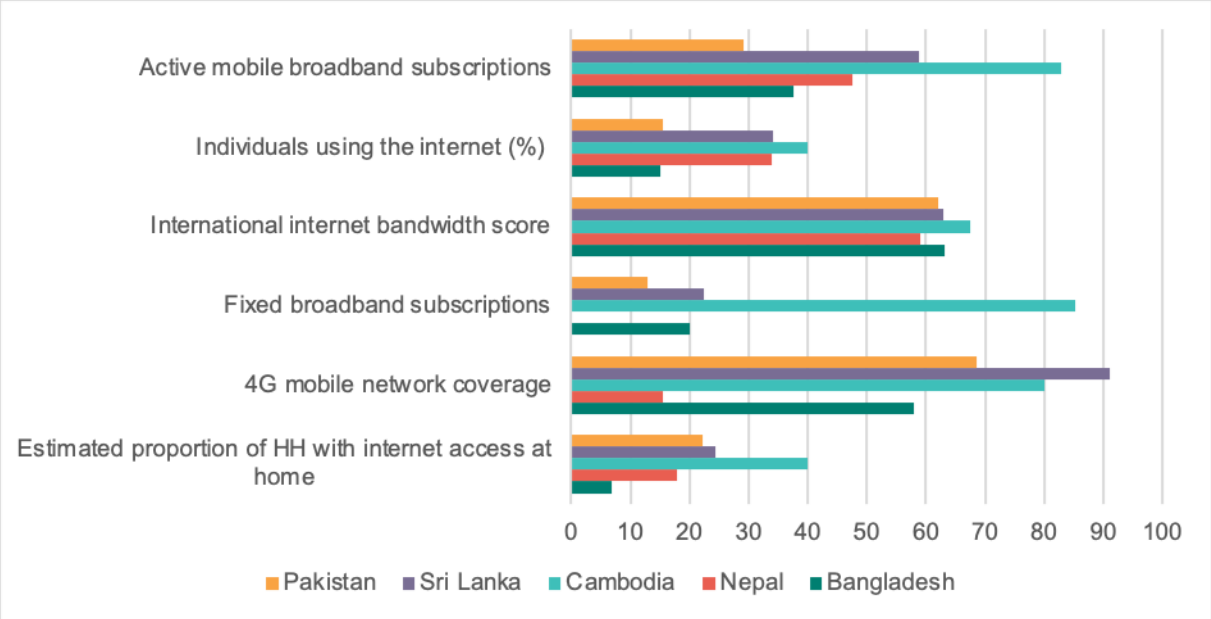
Figure 1. Bangladesh vs. comparator countries on the B2C e-commerce index, 2019



Source: UNCTAD B2C 2019 index

Figure 2 further compares Bangladesh with comparators on key digital access indicators. Currently, internet penetration stands at a low 15%, with Bangladesh lagging behind comparators, in terms of active mobile broadband and fixed broadband subscriptions, as well as internet penetration in households. Around 58% of the population is covered by the 4G mobile network, but this is still lower than in Cambodia, Sri Lanka and Pakistan.

Figure 2. Bangladesh vs. comparator countries on digital access



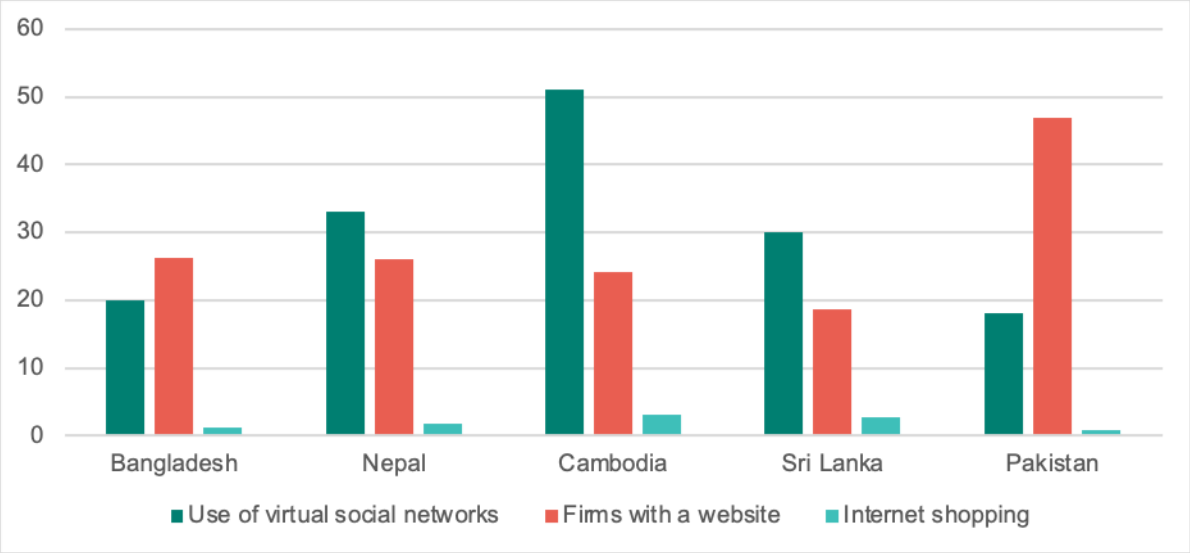
Notes: Active mobile broadband are number of subscriptions per 100 people, fixed broadband subscriptions refers to share in total subscriptions, 4G coverage refers to share of population covered by at least an LTE/WiMAX mobile network in 2018.
Source: WEF NRI 2019

Figure 3 analyses channels of e-commerce in Bangladesh and comparators. While social media penetration is above 30% in Nepal, Cambodia and Sri Lanka, it is at 20% in Bangladesh. As per the 2020 Digital Bangladesh Report,[5] 99% of social media users are

[5] https://datareportal.com/reports/digital-2020-bangaldesh

accessing through mobile phones. Only 26% of firms surveyed in the country have a website (Figure 3).

Figure 3. E-commerce channels in Bangladesh and comparators (%)



Notes: Use of virtual social networks is share of active social media users in total population, 2018. Firms with a website represents the share of firms with their own website in 2018. Internet shopping refers to percentage of respondents aged at least 15 years old who have used the internet in the past year to buy something online, 2017.
Source: WEF NRI 2019

4.2. Size of E-Commerce in Bangladesh

Before Covid-19, the number of deliveries per day was around 60,000 in the online commerce segment – twice that of traditional couriers – and the market size of e-commerce in Bangladesh was estimated at between $1 billion (LightCastle, 2020c) and $1.6 billion (LightCastle, 2020a). The e-Commerce Association of Bangladesh (e-CAB) estimates e-commerce contribution's to GDP at 0.2% (The Business Standard, 2020). As per Hossain et al. (2018), across product categories, prospects of e-commerce are particularly strong in banking sectors (online banking), beauty and health, electronics and home appliance products, fashions and cloths, foods and restaurant, apartment selling and rent, home decorations and furniture items, job seeking and online advertisements, online cards, gifts, online transportation system, hotel management and tourism etc., sports and travelling items, software and entertainment (video, music, games), toys and handicrafts, web hosting and domain, restaurants and community service.

In terms of employment, BASIS (2018) reports 300,000 professionals working in 4,500 registered IT companies in Bangladesh, with software development occupying almost 50% of the total IT sector, followed by IT-enabled services (11%), the business process outsourcing sector (5%) and e-commerce (3%). e-CAB has 1,200 members and 1.25 lakh workers involved in the sector, of whom 26% are women and 74% are men.

4.3. e-commerce business models in bangladesh

Different e-commerce business models are operating in Bangladesh, as depicted in Table 2. B2B e-commerce is where a company conducts its trading and other commercial activity through the internet with business/trading partners. Several B2B websites in Bangladesh are engaged in providing manufacturing and supply chain solutions. For instance, BGMEA has deployed B2B e-commerce solutions for international RMG orders and procurement, as have several large RMG companies. There are also B2B websites that feature business directories, trade deals and information about suppliers, such as Bangladesh Business

Guide, Address Bazar and Bizbangladesh. There are many Bangladeshi companies engaged in e-commerce services,[6] including in web design, domain name purchasing, secure hosting, digital marketing and advertising, app development and payment gateways, among others. Many of these companies provide services to clients abroad, especially in North America. e-Cab estimates there are approximately 550,000 freelancers in Bangladesh providing e-commerce or related services.

B2C involves consumers purchasing products, such as e-books, games and songs, etc. Different types of B2C delivery services are in operation in Bangladesh, such as PaperFly, in addition to national platforms such as bdbazar.com as well as international platforms such as Alibaba. B2C e-commerce has particularly taken off for online food delivery sites such as HungryNaki and FoodPanda.

Business-to-government (B2G) e-commerce forms an essential part of functioning of e-governance, and is usually used for licensing processes, government purchases and other operations.

The consumer-to-consumer (C2C) model involves online transactions between individual consumers, for instance online auction platforms like eBay. C2C businesses are growing, with leading players in this category being Bikroy, Ekhanei and ClickBd. These sites are individual and auction-based online marketplaces similar to eBay. More recently, the C2C sector has seen some consolidation, with Telenor Group purchasing CellBazar and Ekhanei.com purchasing playeOLX,[7] Online employee recruitment is also growing, particularly in the private sector.

Table 2. Categories of e-commerce

Category	Agents involved	Description	Examples of platforms in Bangladesh
Business-to business (B2B)	Sales between wholesalers, retailers, manufacturers, etc.	Exchange of services, or information between businesses rather than between businesses and consumers	bgmea.com.bd, bizbangladesh.com
Business-to-consumer (B2C)	Firms sell products directly to consumers	Includes financial transaction or online sale between a business and consumers	e-banking. ajkerdeal.com, bdbazar.com, daraz.com, bajna.com
Business-to-government (B2G)	Firms and the public sector	Use of internet for public procurement, licensing procedures and other government-related operations	
Consumer-to-consumer (C2C)	Consumers	Consumers selling products to other consumers; also involves use of second hand or used products	bikroy.com, clickbd.com

Source: Adapted from Banga et al., (2020)

While e-commerce industries in Bangladesh focus on B2B, C2C and B2C business strategies (Karim and Qi, 2018), roughly 90% of e-commerce is B2C (Islam, 2018), in major cities of Bangladesh, such as Dhaka, Chittagong and Gazipur, which together contribute 80% of the total e-commerce shoppers. Dhaka (the capital city) draws the highest traffic – 35% – followed by Chittagong (29%) and Gazipur (15%). Sylhet and Narayanganj are two other cities that are showing promising growth (e-CAB, 2016).

[6] https://legacy.export.gov/article?id=Bangladesh-ECommerce
[7] https://www.privacyshield.gov/article?id=Bangladesh-ECommerce

Within B2C e-commerce, informal e-commerce – that is, e-commerce conducted via social media platforms (such as Facebook or WhatsApp) – has emerged as the most important channel. As per new reports, Bangladesh currently has 2,500 e-commerce websites (The Daily Star, 2020b), selling products worth over $2 billion, with more than 300,000 Bangladeshi stores operating through Facebook.[8] Of these stores, women own 50%. Facebook has transformed Bangladesh's online business landscape. The social media platform boasts 30 million users and 50,000 business pages in the country.

However, f-commerce is fragmented, situational and often dominated by MSMEs and women (Islam and Roest, 2020). As opposed to formal e-commerce – whereby buyer and seller experiences are mediated by an e-commerce platform from start to finish – buyers and sellers just connect through online platforms but do not necessarily engage in other aspects of online commerce, such as payment or delivery. Interviews undertaken with representatives of e-CAB confirm that e-commerce in Bangladesh is predominantly B2C, and undertaken largely through entrepreneurs selling goods and services to consumers through social media sites, such as Facebook, using mobile banking or cash on delivery, with 80% being SMEs. This throws up the problem of low online consumer trust, lack of payment gateway provisions integrated with social media sites and the issue of regulating such informal e-commerce. One can argue that, in the absence of regulations, f-commerce can boost entrepreneurship and give rise to e-commerce start-ups that will eventually migrate to more formal channels based on organic growth and opportunity identification, as observed in the case of Priyoshop (UNCTAD, 2019). Meanwhile, the bigger companies sell through third party e-commerce platforms (such as Daraz), but the main challenge here is the lack of proper training, knowledge and awareness regarding these platforms, in addition to high commissions being charged.

[8] https://idlc.com/mbr/article.php?id=192

5. E-Commerce Enablers and Challenges in Bangladesh

This section examines Bangladesh's performance on key e-commerce enablers, including digital access, awareness and skills related to e-commerce, MFS and online payment systems, trade logistics and trade facilitation. It also scopes out the digital divide existing across demographic indicators and challenges faced in uptake of e-commerce.

5.1. Digital Access and Affordability

As discussed in Section 3, in 2013 Bangladesh Bank permitted the purchase and sale of goods and services online using international credit cards. From Figure 4, we observe that internet penetration increased significantly from 6% in 2013 to 18% in 2016 but declined thereafter. Mobile internet remains the most prominent form of internet access in Bangladesh; mobile cellular subscriptions, per 100 people, increased by 37 percentage points between 2012 and 2019. There is strong competition existing in the mobile network operating base (UNCTAD, 2019). However, while 97% of Bangladesh is covered by a mobile signal, there are differences in access to reliable and same speeds, with 17% of non-mobile phone users in Bangladesh citing a lack of network coverage as a barrier (After Access 2018a).[9] Women are also less likely to access financial services, and particularly less via mobile technology (Hunt and Samman, 2016). While cost remains the greatest barrier overall to owning and using a mobile phone, security and harassment also emerged as one of the top five barriers, and a key concern for women (Herbert, 2017).

Efforts to boost internet penetration have been complemented by the development of local capabilities for smartphone manufacturing production, which can improve the affordability of mobile devices; local brands such as Symphony and Walton occupy almost 30%[10] and 15%[11] of the smartphone market. Although 74% of people aged 15–65 in Bangladesh own mobile phones, only 18% own smartphones (LIRNEasia, 2018). There are also differences in mobile ownership and internet access by gender: 58% of women in Bangladesh own a mobile phone vs. 87% of men; similarly, 7% of women access the internet vs. 18% of men (a 62% gap) (After Access, 2018b).

A key barrier to digital access in Bangladesh is affordability of internet: every ISP takes $125 for registering an earning subscriber, with the online charge being $0.75 per minute (Azad and Islam, n.d.)[12]. Figure 5 shows that 1 GB of data has a higher cost in Bangladesh than in other Asian economies of India, Pakistan, Sri Lanka and Indonesia. In line with this, Figure 6 shows that, although it takes only three days to obtain an internet connection service in Bangladesh, the price of a business broadband connection is $182 in Bangladesh, significantly higher than in the economies of Indonesia, Malaysia and Viet Nam, where the average cost is less than $50.

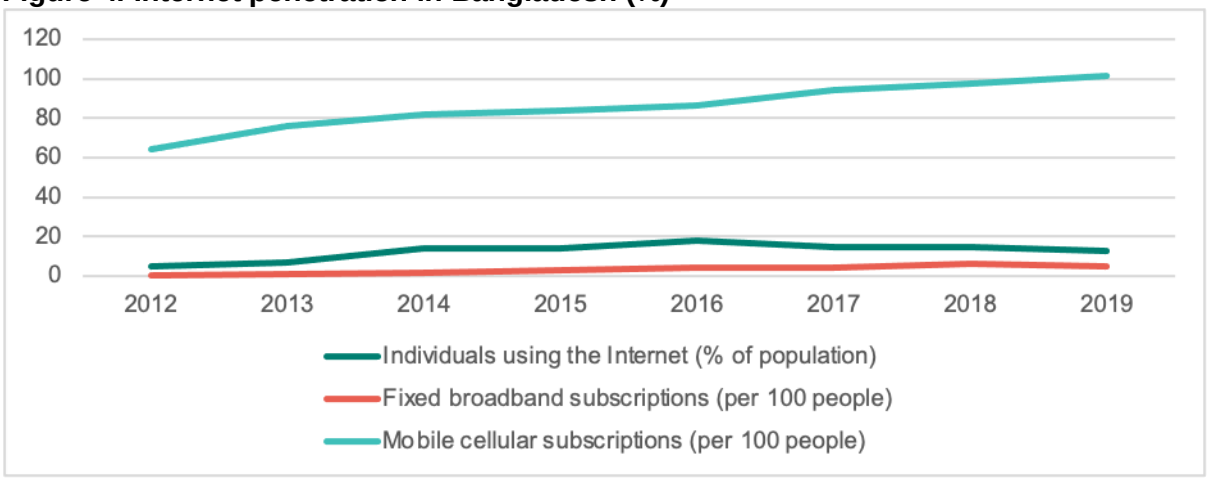
[9] About 24% of people in Bangladesh also lack access to electricity, which can hinder mobile phone usage and adoption of e-commerce.

[10] https://www.thedailystar.net/business/news/symphony-now-meets-smartphone-demand-own-plant-1858351

[11] https://www.dhakatribune.com/business/2020/02/24/4-1-growth-in-local-mobile-phone-market-in-2019#:~:text=Walton%20was%20able%20to%20strengthen,in%20the%20sub%20%24100%20segment.

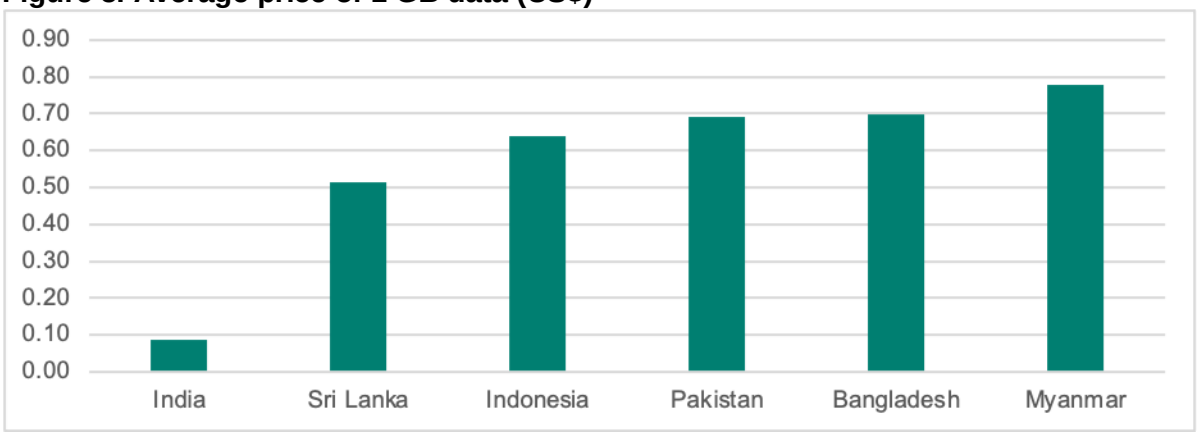
[12] https://web.archive.org/web/20160103124803/https://www.isoc.org/inet97/proceedings/E3/E3_1.HTM

Figure 4. Internet penetration in Bangladesh (%)



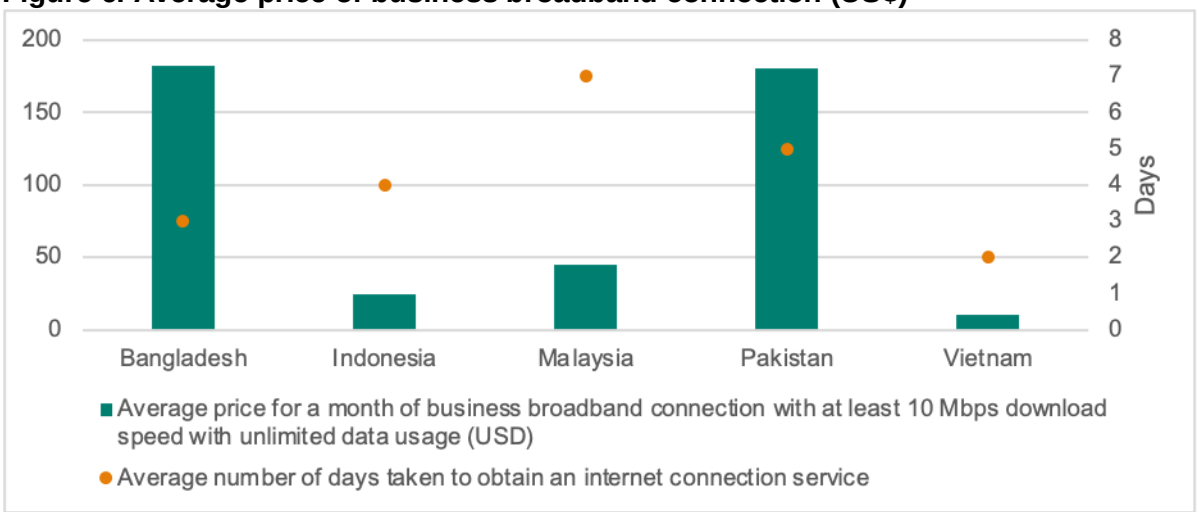
Source: WDI 2020

Figure 5. Average price of 1 GB data (US$)



Source: cable.co.uk

Figure 6. Average price of business broadband connection (US$)



Note: Choice of comparators is based on data availability.
Source: World Bank 2019 Digital Business indicators.

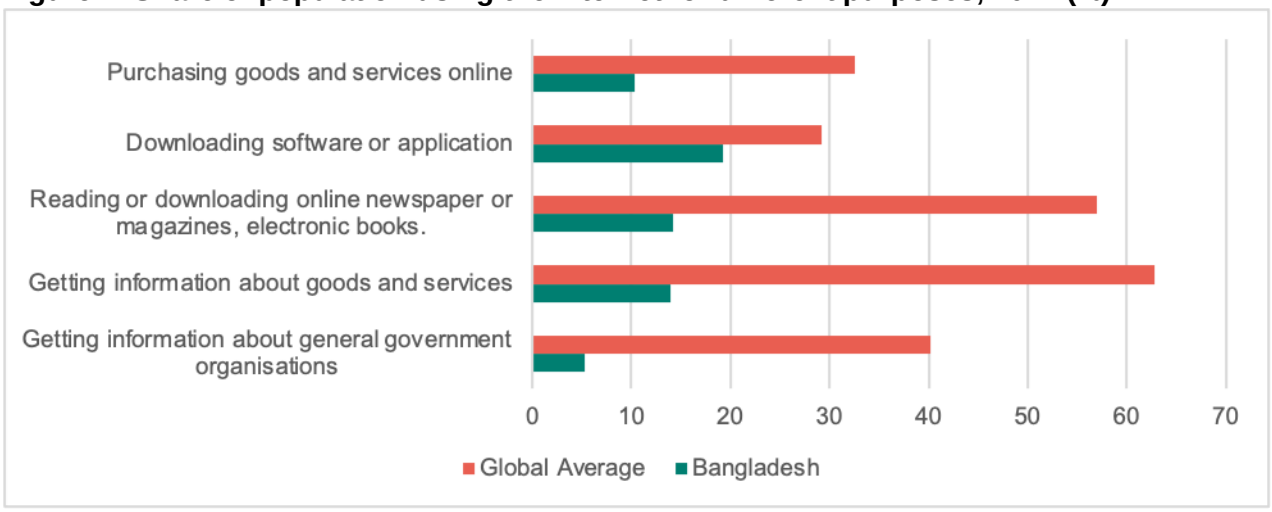
5.2. Awareness and Skills to use E-Commerce Platforms

Beyond access to mobile phones and internet, awareness and skills in using mobile phones, internet and digital applications such as search engines, e-books, mobile apps, etc. is crucial. Around 67% of offline Bangladeshis report not knowing how to use the internet, with 27% of people in Bangladesh not knowing how to use even a basic mobile phone (LIRNEasia, 2018). Less than 25% of people aged 15–65 in Bangladesh are aware of e-commerce platforms where goods and services can be bought and sold (Hernandez, 2019); 10% know they can use the internet to book accommodation; and 16% are aware of microwork activities online (LIRNEasia, 2018).

In addition to the need to increase awareness of platforms, digital skills development is key to e-commerce growth. A third of people aged 15–65 in Bangladesh are aware of the internet but only 13% use it, and, despite almost a quarter of people being aware of e-commerce platforms, the amount of Bangladeshis who use them are negligible (LIRNEasia, 2018). Figure 7 shows Bangladesh is significantly behind the global average on population with digital skills, across different categories considered. Only 13.9% of the population has skills to get information about goods and services online, with only 10.3% actually using the internet to purchase goods and services via the internet.

A gendered digital skill divide also exists in Bangladesh (Commonwealth Secretariat, 2020), which can be traced to lower access of internet by women in the country. A range of initiatives are in place, however, with the aim of addressing the digital skills gap, particularly for women. Under the Ministry of Commerce (MOC) E-Banijjo Korbo, Nijer Bebsha Gorbo project, 1,475 youths from Dhaka and Chittagong have received training in e-commerce (Irani, 2020). The project aims to provide training to more than 5,000 women members across the country on e-commerce. Similarly, the Bangladesh Regional Connectivity Project-1 MOC Component is providing capacity-building of women entrepreneurs regarding internal and international trade and the WTO.[13]

Figure 7. Share of population using the internet for different purposes, 2017 (%)



Source: ITU (2018)

[13] https://mof.portal.gov.bd/sites/default/files/files/mof.portal.gov.bd/budget_mof/bef1aa6d_fed7_4426_85b1_89d292f44f26/G-3_04_117_Commerce_English.pdf. See page 228.

5.3. Mobile Financial Services and Online Payment Systems

Development of reliable MFS can increase trust in mobile payments and facilitate the shift from a cash-based to a cashless economy. The Regulatory Guidelines for Mobile Financial Services in Bangladesh, revised most recently in 2015, facilitated the nationwide rapid roll-out of MFS; popular providers include bKash, Rocket and UCash[14]. Further, in 2019, the Bangladesh Post Office's digital financial service, Nagad, was launched to meet the growing demand for MFS, particularly among those deprived of banking services.

However, data from the Global Findex Report on digital financial inclusion (Table 3) shows that only 50% of the population (over the age of 15) has an account in Bangladesh. However, compared with other countries in the region, Bangladesh fares better on internet banking: 33.5% of the male population and 11.5% of the female population uses a mobile phone or the internet to access an account, higher than in India, Cambodia, Myanmar, Nepal and Pakistan. Youth access to internet banking is also better in Bangladesh than in comparators: 25% of the young Bangladeshi population uses the mobile phone or internet to access an account, compared with 5% of the young population in India. Similarly, Bangladesh fares better than other Asian comparators in Table 3 on digital payments made or received across the male, female, young and older populations. However, Figure 8 further shows that, while it takes, on average, one day for a merchant in Bangladesh to receives payment in the case of domestic e-commerce – lower than the days taken in Indonesia, Malaysia and Pakistan – it takes five days for cross-border e-commerce, higher than in Indonesia, Pakistan and Viet Nam.

A gendered digital divide in financial inclusion exists in Bangladesh: 47% of the male population is engaged in digital payments as opposed to 21% of the female population (Table 4). As highlighted in Financial Inclusion Insights (2018), mobile money adoption alone does not bring gender equality; women MM users have more financial autonomy over household decisions than women non-users but men MM users still have significantly more financial autonomy than women MM users.

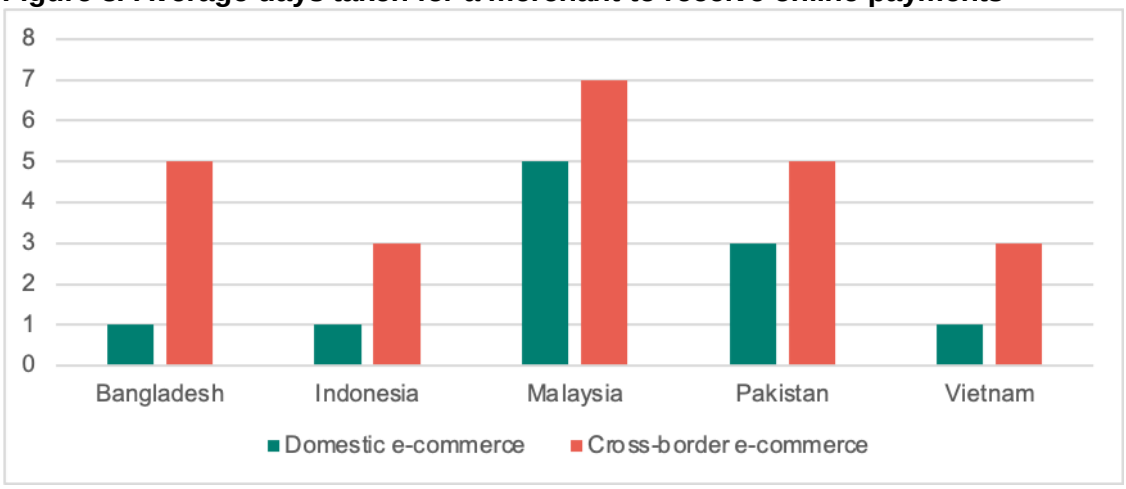
Table 3. Digital financial inclusion, Bangladesh vs. comparators

	Bangladesh	India	Cambodia	Myanmar	Nepal	Pakistan
Account (% age 15+)	50.05%	79.88%	21.67%	25.99%	45.39%	21.29%
Account, female (% age 15+)	35.84%	76.64%	21.53%	25.98%	41.60%	7.03%
Account, young adults (% ages 15–24)	40.99%	71.40%	19.68%	11.26%	39.34%	14.89%
Used a mobile phone or the internet to access an account, male (% age 15+)	33.55%	6.80%	6.45%	1.42%	4.77%	13.78%
Used a mobile phone or the internet to access an account, female (% age 15+)	11.53%	3.75%	5.46%	0.81%	3.36%	0.95%
Used a mobile phone or the internet to access an account, young adults (% ages 15–24)	25.74%	5.15%	7.00%	1.43%	6.80%	7.22%
Made or received digital payments in the past year, male (% age 15+)	47.31%	34.75%	16.08%	8.02%	20.15%	29.22%
Made or received digital payments in the past year, female (% age 15+)	21.21%	22.44%	15.14%	7.44%	13.14%	5.34%
Made or received digital payments in the past year, young adults (% ages 15–24)	33.14%	21.04%	13.07%	5.04%	16.12%	13.44%
Made or received digital payments in the past year, older adults (% age 25+)	34.48%	31.59%	16.72%	8.59%	16.38%	19.89%

Source: Demirguc-Kunt et al. (2017)

[14] https://thefinancialexpress.com.bd/views/rationalising-high-mfs-charges-1612283224

Figure 8. Average days taken for a merchant to receive online payments



Source: World Bank Digital Business indicators 2019

5.4. Trade Logistics and Trade Facilitation

According to the findings of an International Trade Centre (ITC) survey based on 2,200 responses, the share of logistic costs in the final price of cross-border e-commerce transactions is almost twice as high for firms in developing countries (26%) as against developed countries (14%). An extensive national postal network with robust delivery capacity and efficient logistics system is essential to e-commerce growth. As Table 4 shows, Bangladesh fares better than comparators in terms of coverage by the postal network: 100% of the population has mail delivered at home, and on average 12.3% of the income in the country is linked to parcels and logistics services, higher than in comparators. Courier companies largely rely on the existing postal network for deliveries, which is extensive, with almost 10,000 post offices and 40,000 governmental staff, enabling last mile contact to within one to two miles of consumers (UNCTAD, 2019). Popular logistical service providers linked to e-commerce include Bangladesh Post Office, DHL, Fedex, UPS, eCourier, Biddut, GoGoBangla, PaperFly, Pathao and Hungrynaki. Roughly 86% of the post-office is run by the private sector (ibid.).

However, Bangladesh lags on reliability of postal services; fraud occurs, whereby deliveries are made and customers file complaints alleging that they have not, as well as problems in the national addressing system, particularly in rural areas (UNCTAD, 2019). Other challenges include low trust in advance payments, dominance of cash on delivery models, inappropriate packaging by SMEs and damaging of parcels, poor coordination between e-commerce firms and logistics firms (ibid.).

Bangladesh also lags on key Logistics Performance Index (LPI) indicators: it has a lower score for international shipments, logistics competence, tracing and timelines. It takes seven days in Bangladesh for an export parcel to clear customs, higher than in India and Malaysia.

Table 4. Trade logistics and facilitation indicators

	Bangladesh	India	Malaysia	Pakistan	Sri Lanka
% of population having mail delivered at home – UPU Database	100	100	95	95	98
% of income linked to parcels and logistics services – UPU Database	12.3	9.2	42		5.4
Postal reliability index – UPU Database	27.3	68.1	84.3	61	50.9
LPI international shipments score	2.7	3.4	3.5	2.9	-
LPI logistics competence score	2.7	3.4	3.3	2.8	-
LPI tracing and tracking score	2.6	3.5	3.5	2.9	-
LPI timeliness score	2.9	3.7	3.7	3.5	-

Days to clear direct exports through customs – Enterprise Survey	7	5.8	6.3	11.4	7.6

Source: Commonwealth Secretariat (2020)

5.5. Legal and Regulatory Framework

E-commerce in bangladesh is still in a nascent stage but is growing rapidly. The regulatory regime must be sufficiently balanced as to offer the flexibility and freedom to pursue innovative and adaptive activities without undue hindrance or excessively strict requirements on compliance with local laws governing e-commerce as a business. A strong and supportive legal and regulatory framework can drive e-commerce growth, particularly cross-border. This includes policies specifically focused on e-commerce and digital transactions but also more broadly related to the enablers we have discussed above, such as on trade facilitation, postal competence, online trust, online payment systems, etc.

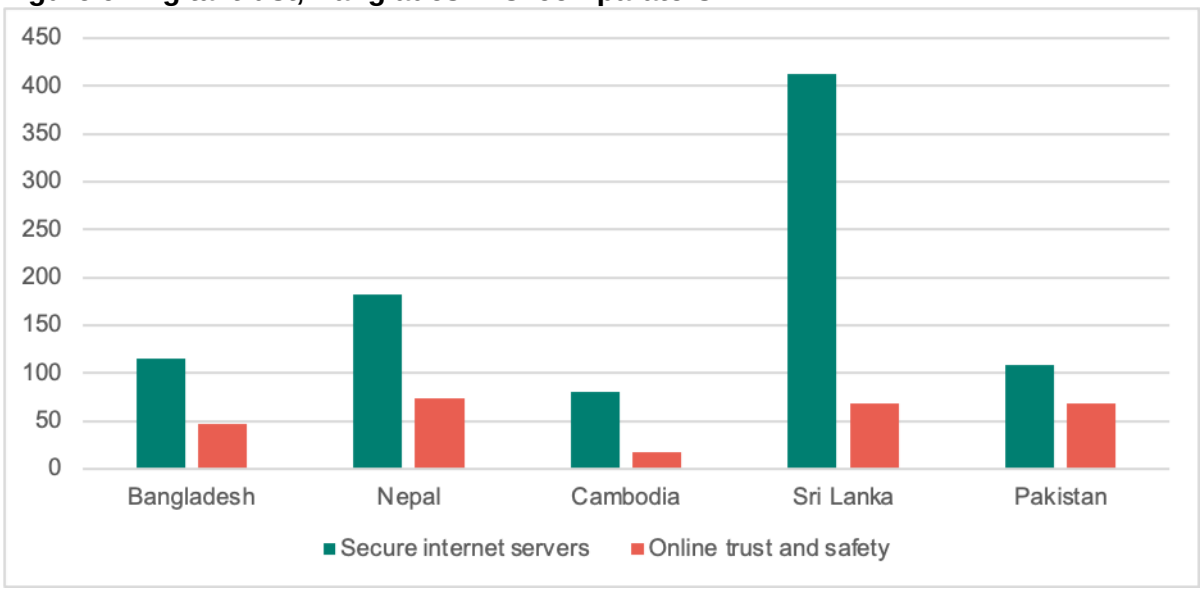
UNCTAD's global cyberlaw tracker identifies four legislation areas critical for e-commerce: electronics transactions, consumer protection, privacy and data protection, and cyber-crime. As per the tracker (Table 5), Bangladesh scores on three in terms of the e-trade regulatory framework: it has active laws on electronic transaction, consumer protection and cyber-crime. However, the Consumer Rights Protection Act of 2009 does not address issues that arise from e-commerce and e-transactions and needs to be amended to account for sales of digital content and e-transactions. This could be an important reason why Bangladesh lags behind comparators on online trust and safety (Figure 9).

Table 5. Presence of e-trade laws

	Nepal	Myanmar	India	Malaysia	Thailand	Viet Nam	Cambodia	Bangladesh
Electronic transactions	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Consumer protection	Yes	Yes	No data	Yes	Yes	Yes	Yes	Yes
Privacy and data protection	Yes	Draft	Yes	Yes	Yes	Yes	No	No
Cyber-crime	Yes	Draft	Yes	Yes	Yes	Yes	Draft	Yes

Source: UNCTAD tracker 2020

Figure 9. Digital trust, Bangladesh vs. comparators



Note: Secure internet servers are per million population. The online trust and safety index is one of three components that make up the Readiness pillar of the Inclusive Internet Index 2019.
Source: WEF NRI 2019

Article 43 of the Constitution recognises an individual's right to 'privacy of correspondence and other means of communication' but no data privacy or protection laws exist as yet that outline how personal information on data stemming from online transactions should be stored and safeguarded (UNCTAD, 2019). Some aspects of the Digital Security Act 2018[15] are meant to fulfil this requirement: it states that a person cannot 'distribute, sell, supply, collect, take into possession or use the identity of another person without legal authority'. The lack of laws on data flows and e-commerce in Bangladesh is further demonstrated in Table 6, which draws information from the World Bank's Digital Business indicators. Bangladesh, at present, allows for free cross-border flow of data with all countries; there is no provision in the law defining consent; no legal obligation for e-commerce platforms to provide consumers with information from data collected; and no obligations to comply with data privacy regulations or security requirements.

Table 6. Digital Business indicators, e-commerce and data flows laws

	Bangladesh	Indonesia	Malaysia	Pakistan	Viet Nam
Can e-commerce platforms lawfully process the computerised personal data of adult customers?	No	Yes, if the customer has given consent	Yes	No	Yes, if the customer has given consent
Lack of a provision in the law that defines the concept of 'consent'	Yes	No	No	Yes	No
No legal obligation on e-commerce platforms to provide customer information on the processing of his or her personal data if he/she requests it and bears the cost, or to delete the data if requested	Yes	No	No	Yes	No
Are cross-border data flows of personal data free with all countries?	Yes	No	No	No	Yes
Do data controllers/processors have to comply with a legal or regulatory framework on data privacy?	No	Yes	Yes	No	Yes
Do data controllers/processors have to process non-sensitive and sensitive personal data differently?	No	No	Yes	No	No
Do e-commerce platforms, considered data controllers/processors, have to comply with any security requirements for automated personal data?	No	Yes	yes	no	yes
Are e-commerce platforms that process personal data monitored by a supervisory authority?	No	Yes	Yes	No	No

Source: World Bank Digital Business indicators 2020 for pilot countries

Overall, key factors constraining e-commerce growth include low internet penetration; lack of consumer trust in online payment solutions; low awareness and skills to use mobile phones and e commerce platforms; lack of proper online security on some e-commerce site and unavailable banking facilities (Hossin et al., 2018); low access to credit owing to lack of physical collateralisation; and online fraud. For cross-border e-commerce, a low de-minimis value, customs checks of most parcels entering Bangladesh and weak logistics infrastructure form further challenges. The current de minimis value is $12, which constitutes an inordinate burden for both importers and customs authorities (UNCTAD, 2019). Small parcels such as purchases from online marketplaces (e.g. eBay, Amazon) of any value

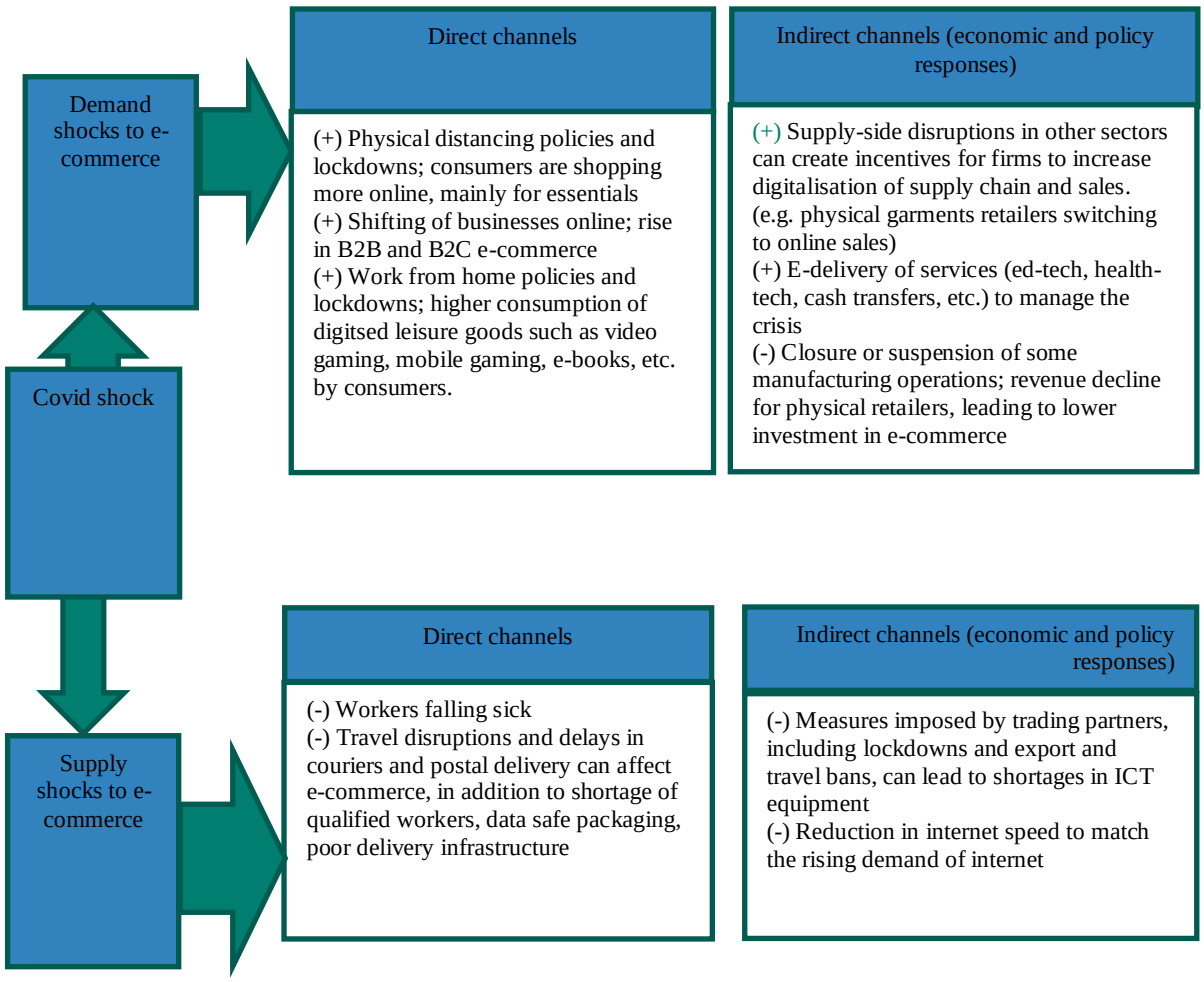
[15] https://www.cirt.gov.bd/wp-content/uploads/2020/02/Digital-Security-Act-2020.pdf

typically remain in custom checks for an extended period, while duties may possibly be levied on them. E-commerce entities also continue to face unique problems in accessing credit through domestic banks owing to credit rating difficulties.

6. COVID-19: Effects on E-Commerce in Bangladesh

The above sections have endeavoured to paint the current landscape, scope and potential of e-commerce in Bangladesh, and the opportunities and challenges it faces. This section examines how Covid-19 has affected e-commerce in Bangladesh, through both demand- and supply-side shocks. To do this, we use Banga and te Velde's (2020) framework on Covid-19 and the digital economy, presented in Figure 10.

Figure 10. Covid-19: demand- and supply-side shocks to e-commerce in Bangladesh



Source: Adapted from Banga and te Velde (2020)

6.1. Demand Channel

On the demand side, the pandemic is affecting e-commerce, both directly and indirectly. Online marketplaces are increasingly being used during the crisis to purchase inputs from other businesses or to sell goods and services online to consumers. These marketplaces allow for remote purchases and delivery services that adhere to social distancing, with firms selling online through their own e-commerce-enabled websites or through third-party platforms such as ClickBD and Daraz. Many of these businesses are using communication platforms such as WhatsApp or Facebook to communicate with customers and suppliers more efficiently, in addition to using online banking and digital payment platforms, such as E-wallet, over physical cash during the pandemic. e-Cab estimates that the pandemic has resulted in a 70–80% growth in online sales as compared with regular times (Hasan, 2020), with an estimated increase of around three to four times on pre-pandemic orders for

necessities (LightCastle, 2020b) and a sharp decline in orders for luxuries. Some types of e-commerce platforms have witnessed a significant growth in orders; others have suffered. Online food delivery platforms have witnessed a surge in orders. Companies such as Chaldal.com, one of the larger B2C businesses specialising in grocery delivery, have attempted to improve their own capacity significantly through employment of more delivery persons. The average order size has from an average of BDT 1,300 to BDT 3,750 (ibid.). A number of e-commerce businesses have adapted by diversifying into essentials and online groceries, such as AjkerDeal.com, PriyoShop.com, Bikroy and Kotha.com (ibid.). Some e-commerce segments have witnessed a fall in demand; around 40–50% of restaurants have closed down, leading to a fall in business and a decline in food delivery services; ridesharing by Uber and Pathao have also been banned to limit the spread of Covid-19 (ibid.).

E-commerce has also witnessed an indirect positive demand shock owing to supply-side disruptions to physical retailers across other sectors. For instance, according to Dhaka Chamber of Commerce and Industries analysis, exports of Bangladesh, led by RMG, leather, agro-processing, pharmaceuticals, jute and jute goods, have been affected seriously as a result of falling demand in and cancellation of orders from key export destinations in Europe and the US (NAWG, 2020). This negative supply shock in sectors such as garments can create incentives for firms to switch to adapt online sales channels, which will in turn create a positive demand for e-commerce. This has been very evident in the case of some African countries. In the World Bank's 2020 Impact of Covid Survey with 1,182 firms across four African countries – Niger, Togo, Zambia, Zimbabwe – 266 firms (22.5% of the sample) reported adopting a digital response to the pandemic – that is, starting or increasing online business activity, mainly in the manufacturing and other services category. Using this data, Banga and te Velde (2020) find that firms with a digital response are faring better across a range of economic outcomes. There is evidence, albeit limited, of this occurring in Bangladesh as well. Of 500 MSMEs surveyed, 9% have increased or started using the internet, social media, specialised apps and other digital platforms in their daily business operations as a response to the pandemic (IFC, 2020).

Another positive indirect demand shock to e-commerce has been the government support directed towards MFS during the pandemic. A cash incentive of BDT 2,500 has been offered to 5 million poor families, which will be paid using MFS services, with top players bKash and Nagad working with private firms and non-governmental organisations[16]. Moreover, Bangladesh's central bank instructed banks in April 2020 to open MFS accounts for all workers of export-oriented companies to facilitate disbursement of salaries and government allowances. As of April 2020, 15 banks are providing MFS, with 28.2 million active MFS accounts.[17] Around 1.92 million MFS accounts have been created for the workers of RMG sectors using the stimulus package announced by the government (LightCastle, 2020d). To encourage the use of MFS, the government has increased the monthly transition limit from approximately $900 to $2,300 and waived charges on withdrawals of up to $12 per day; the daily transaction limit on contactless debit and cards has been increased from approximately $35 to $60.[18] A circular passed on 14 January 2021 further permits advances against imports under buyers' credit.[19] However, to further encourage the internationalisation of Bangladesh's e-commerce businesses, the interoperability of locally available MFS solutions with international payment systems, particularly the regular banking system, is essential (UNCTAD, 2019).

[16] https://www.lightcastlebd.com/insights/2020/06/covid-19-impact-industries-experiencing-growth-due-to-the-pandemic
[17] https://www.trade.gov/country-commercial-guides/bangladesh-ecommerce
[18] https://home.kpmg/xx/en/home/insights/2020/04/bangladesh-government-and-institution-measures-in-response-to-covid.html
[19] https://www.bb.org.bd/en/index.php/mediaroom/circular

Interviews with e-Cab reveal that, while domestic e-commerce demand has increased, there is much scope for cross-border e-commerce, which is constrained mainly by the lack of a proper cross-border e-commerce policy. Transaction volumes and delivery costs are very high in cross-border e-commerce, and this is added to the lack of a reliable online payment system with interoperability. Escrow services are a must for creating trust between buyers and sellers but are at present missing. Lack of awareness of the benefits of technology, limited funds, absence of infrastructure, concerns over privacy and data security, and inability to deploy technology owing to the lockdown could be some of the barriers to tech adoption among MSMEs in Bangladesh. Moreover, the pandemic has also threatened to exacerbate the existing digital divide across genders. Women in Bangladesh are 29% less likely than men to own a mobile phone and 52% less likely to use mobile internet as per GSMA (2020). The effects of the gender mobile internet and usage gap can be seen during the Covid-19 pandemic: only 43% of women, against 57% of men, received helpful, clear and timely information on Covid-19 support (ibid.).

6.2. Supply Channel

During the initial stages of the pandemic, e-commerce in Bangladesh almost halted, and the industry lost $78.64 million directly in revenues (Islam, 2020). e-CAB reports that 90% of e-commerce companies were unable to operate their business as a result of the shutdowns enforced to prevent the spread of the novel coronavirus (The Business Standard, 2020). Significant losses were observed in f-commerce sales and by businesses not involved in sale of necessities (LightCastle, 2020b). PaperFly – a third-party logistics supplier – reported a 90% fall in orders owing to supply-side disruptions, such as workers migrating out of Dhaka, causing a shortage in labour (ibid.). While demand for e-health and ed-tech increased, e-services and e-commerce industry is highly dependent on day-wage/contractual earners, and the sudden outflow of workers from the city led to serious staffing shortage (LightCastle, 2020a).

A further supply-side shock came from the broader ICT sector. On the one hand, the operators are experiencing an increase in internet traffic, with business shifting online, working from home and people buying online. GSMA (2020) reports a 21% increase in data carried by mobile networks in Bangladesh in Q2 versus Q1 in 2020. On the other hand, this surge in internet demand has come at the cost of declining internet speed, which could have negatively affected the functioning of e-commerce companies. At 3.56 Mpbs, the average pre-Covid download speed in Bangladesh was already lower than that of many of its comparators but it suffered a further 21.7% decline during the lockdown period between March and May (Table 7). However, there are reports of some recovery post-August (GSMA, 2020). Travel restrictions and bans imposed during the national lockdown made it difficult for pre-paid customers to top up their credit. This was compounded by an increase in supplementary duty from 10% to 15%, which raised the cost of mobile services and data, with a disproportionate impact on low-income and price-sensitive consumers. Overall, active mobile internet subscribers fell by 0.3% in Q2 versus Q1 (ibid.).

Table 7. Change in internet speed during Covid-19

Country	Mean download speed during lockdown period (M-Lab)	Mean download speed outside of lockdown period (M-Lab)	Percentage change during lockdown period compared with non-lockdown period
Bangladesh	2.79	3.56	-21.76%
India	12.92	16.37	-21.05%
Nepal	4.52	5.53	-18.25%
Myanmar	7.34	8.06	-8.89%
Pakistan	2.31	2.29	0.87%
Cambodia	6.64	6.32	5.08%

Source: cable.co.uk

Globally, there was also a 6.5% decline in mobile phone growth post Covid-19, with a 12% year-on-year decline in the first quarter for smartphone manufacturing, a highly labour-intensive segment, and a 12.3% year-on-year decline in the first quarter for global PC sales, with a steep 27.1% decline in the Asia Pacific region. Other supply-side effects included administrative and regulatory bottlenecks and quarantine conditions, suspension of manufacturing activity, decreased production and new health regulations, which led to disruptions in land, sea and cargo transportation (WTO, 2020a). Cancellation of passenger flights typically used to transport postal shipments and other small consignments has significantly reduced transport capacity and increased shipping prices for cross-border B2C and B2B transactions (ibid.).

Indirect effects include supply-side disruptions in other sectors and trading partners. Interviews with e-Cab and MOC confirm that key supply-side problems in e-commerce during the pandemic included collapse of the postal delivery system and suspension of operations in production houses for the first one to two months, as well as reduced access to supplies from key neighbouring partners India and China. Bangladeshi ICT services exports are also mainly dependent on business from North American and European companies; containment measures (working from home and national lockdowns) imposed by these economies, and the resultant stagnation on business growth, are likely to have resulted in a fall in outsourcing to Bangladeshi firms (LightCastle, 2020a).

Overall, it is likely that the positive demand shocks to e-commerce have been felt more by third-party online marketplaces in Bangladesh, whereas the smaller e-commerce companies have been more affected by the supply-side disruptions to the sector. Overall, wholly digital business models in Bangladesh have been more resilient to the current crisis, with rising importance of social media platforms as marketplaces (UNCTAD, 2019). The sector has received vital support from MOC, which has prioritised e-commerce and allowed e-commerce to operate despite the lockdown. Collaboration remains key, particularly between the private sector and the Ministry of ICT for online training, and with postal companies.

7. Priorities to Leverage E-Commerce

The pandemic has highlighted the importance of digital technologies but also several vulnerabilities. The resulting experiences and lessons are also relevant to various discussions in the WTO, including those on electronic commerce, which could benefit from looking at greater international cooperation to build digital capabilities, narrow the digital divide and level the playing field for MSMEs –particularly important now by virtue of Bangladesh's graduation timeline. To leverage the full benefits of e-commerce, Bangladesh will require significant investments in hard digital infrastructure (ICT equipment, telecommunication networks, etc.) and soft digital infrastructure (updating the legal and regulatory framework around data, cyber-security, consumer protection laws, etc.).

There is a significant challenge in with regard to the appropriate linkage between the development goals of leveraging e-commerce/managing the complexity between e-commerce expansion, facilitating consumer and business usage; and ensuring privacy and security, through an appropriate regulatory framework (non-intrusive, facilitating rather than controlling, ensuring competition to limit monopolistic market grabs, etc.). It is critical for regulation to foster and not suppress innovation – by managing it more inclusively. Table 8 presents an Action Matrix setting out policy priorities in the short and medium to long term.

On digital access, universal coverage of 2G and 3G should be the priority in the short term, while increasing 4G and eventually 5G coverage in the medium to long run. At present, internet speed in Bangladesh is lower than in its comparators, and it experienced a further 20% decline in the lockdown period. The slow adoption of 3G in the country can be explained by the high cost of accessing the internet; a medium consumption basket (1 GB of data) costs an individual in the bottom 20% of the income distribution roughly 11.4% of their monthly income (Ahmad, 2020). The National Broadband Policy has mandated financing of a Universal Service Fund to expand digital access but there is no provision for the roll-out of free digital access points in the broadband plan; nor is it possible to obtain a broadband connection entirely online. Affordability of internet can also be achieved through better and more efficient spectrum allocation and active digital infrastructure-sharing in the short term.

Another key priority is the development of digital trust. Bangladesh has a legal framework for electronic transactions/e-signatures, consumer protection and cyber-crime prevention, but it continues to lag behind in terms of legislation on protection/privacy online, reliance on cash, consumer trust and IPR (UNCTAD, 2019). The ICT Act of 2006 (and amended versions in 2009 and 2013) and the Digital Security Act of 2018 are the cornerstones of cyber-laws in Bangladesh. The Consumer Rights Protection Act 2009 provides a regulatory framework but needs to be amended to include the different facets of e-transactions and dispute resolution to build online consumer trust. A regulatory gap also exists regarding copyrights, trademarks and patent rights of e-information and data, and domain name protection, which the Digital Security Act needs to address. Moreover, Bangladesh needs to develop a law on data protection and privacy. Very much linked to digital trust is a robust and reliable online payments system for boosting e-commerce. Interviews with MOC highlight the need for integration of payment systems with the f-commerce models and into a single switch so there is interoperability.

There is clear need to better link e-commerce with trade to facilitate cross-border e-commerce. First, the National Digital Commerce Policy needs to be effectively implemented through development of a standard operating guideline or law. Key issues on data (such as data transfer and localisation) and financing need to be addressed by the policy. Table 8 discusses the other issues.

Table 8. Action Matrix for levering e-commerce for post-crisis recovery

	Short term	**Medium to long term**
Digital	• Provision of short-term, affordability-	• Reduction of the gender digital divide

	Short term	**Medium to long term**
access	improving services such as zero-rated access to essential content and promotion of mobile internet usage through reduction in taxes, duties and fees on mobile communications • In addition to the existing passive infrastructure-sharing in the country, publication by the Bangladesh Telecommunication Regulatory Commission and the government of regulatory guidelines for *active* infrastructure-sharing through mobile virtual network operation licences	in mobile ownership and access to and use of internet through targeted interventions focusing on increasing awareness of e-commerce, digital skills development and digital financial inclusion for women • Improvements in affordability of data by including a provision for the roll-out of free and public digital access in the existing national broadband plan
Improving e-commerce and trade logistics	• Facilitation of a fully online system for securing a business broadband connection	• Increasing reliability of postal services and improving the addressing system, particularly in rural areas, through digitalisation of postal and delivery system, for instance electronic tracking of parcels
Increasing digital trust for domestic and cross-border e-commerce	• Amendment of the CPA 2009 with provision to address e-commerce related concerns for consumer protection such as online dispute resolution. • Integration of payment systems with f-commerce models and into a single switch so there is interoperability	• Amendment of the Digital Security Act 2018 to account for issues around IP in e-commerce such as protection of domain names for e-commerce websites • Developing escrow services to create trust between buyers and sellers, particularly for B2B transactions • Developing a data protection act to address issues on the cross-border flow of data, data collection, processing, sharing and storing
Improving the link between e-commerce and trade	• Improving implementation of the Digital Commerce Policy by introducing standard operating guidelines or law	• Connection of initiatives for trade promotion efforts in priority sectors such as tourism, pharmaceuticals, apparels/jute and food processing with e-commerce-based business models (UNCTAD, 2019) • Development of a cross-border e-commerce trade policy that addresses laws and rules for managing the collection and use of data, online dispute resolution, digital trust, digital signatures, electronic transactions, etc. • Facilitating the receipt of cross-border online payments, which currently takes five days, higher than in other countries. This can be done through interoperability of locally available MFS solutions with international payment systems, particularly the regular banking system (UNCTAD, 2019)
Skills	• Introduction of formal structure of apprenticeships in e-commerce companies	• Better collaboration between academia and the private sector, particularly e-commerce companies

Source: Authors

References

After Access (2018a) 'The inside internet story of Africa, Asia, and Latin America: mobile and internet use in the Global South has no "one-size-fits-all" approach'. (http://afteraccess.net/wp-content/uploads/After-Access-Website-layout-r1.pdf)

After Access (2018b) 'Understanding the gender gap in the Global South'. (http://afteraccess.net/wp-content/uploads/2018-After-Access-Understanding-the-gender-gap-in-the-Global-South.pdf)

Ahmad, S. (2020) 'Telecom—the next golden goose?' The Daily Star, 25 June (https://www.thedailystar.net/opinion/news/telecom-the-next-golden-goose-1919873)

Al Fattah, Md. A. (2020) 'How cross border e-commerce can revive Bangladesh RMG'. Daily Sun, 12 May (https://www.daily-sun.com/arcprint/details/481419/How-cross-border-ecommerce-can-revive-Bangladesh-RMG/2020-05-12)

Banga. K., & te Velde, D. W. (2020). Covid-19 and disruption of the digital economy; evidence from low and middle-income countries. Digital Pathways at Oxford Paper Series; no. 7. Oxford, United Kingdom.

Banga, K., Gharib, M., Mendez-Parra, M. & Macleod, J. (2021). E-commerce in PTAs; implications for African firms and the AfCFTA. ODI report.

BASIS – Bangladesh Association of Software and Information Services (2018) 'IT and ITES industry overview'. (https://basis.org.bd/public/files/publication/5e123f2d5a6c6ba96136a3b168568073f9800e5b0f5b9.pdf)

bdnews24.com (2017) 'Sonali Bank gets Bangladesh Bank nod to start PayPal services'. 20 March (https://bdnews24.com/business/2017/03/20/sonali-bank-gets-bangladesh-bank-nod-to-start-paypal-services)

Broome, P.A. (2016) 'Conceptualizing the foundations of a regional e-commerce strategy: open networks or closed regimes? The case of CARICOM' Cogent Business & Management 3(1): 1139441

Burri, M. and Polanco, R. (2020) 'Digital trade provisions in preferential trade agreements: introducing a new dataset' Journal of International Economic Law 23(1): 187–220

Commonwealth Secretariat (2020) State of the digital economy in the Commonwealth. https://thecommonwealth.org/sites/default/files/inline/Digital%20Connectivity%20Report_low%20res_.pdf

Demirguc-Kunt, A., Klapper, L., Singer, D., Ansar, S. and Hess, J. (2018) Measuring financial inclusion and the fintech revolution. Washington DC: World Bank

e-CAB (2016). E-Commerce Policy Framework for Bangladesh. (http://e-cab.net/wp-content/uploads/2016/08/E-Commerce_Policy_Framework_for_Bangladesh7.pdf)

Fan, J., Tang, L., Zhu, W. and Zou, B. (2018) 'The Alibaba effect: spatial consumption inequality and the welfare gains from e-commerce' Journal of International Economics 114(C): 203–220

Financial Inclusion Insights (2018). Bangladesh: Wave 5 Report. (http://www.finclusion.org/uploads/file/bangladesh-wave-5-report_final(1).pdf)

GSMA (2018) 'Mobile Connectivity Index 2018: analysing the state of mobile internet connectivity across the world'. (https://www.gsma.com/mobilefordevelopment/programme/connected-society/mobile-connectivity-index-2018-analysing-the-state-of-mobile-internet-connectivity-across-the-world/)

GSMA (2020) 'Keeping Bangladesh connected: the role of the mobile industry during the COVID-19 pandemic' (https://www.gsma.com/mobilefordevelopment/wp-content/uploads/2020/12/Keeping-Bangladesh-connected-The-role-of-the-mobile-industry-during-the-COVID-19-pandemic.pdf)

Hasan, A. (2020) 'The growth of e-commerce during the pandemic in Bangladesh'. New Age, 23 August (https://www.newagebd.net/article/114200/the-growth-of-e-commerce-during-the-pandemic-in-bangladesh)

Herbert, S. (2017) 'Digital development and the digital gender gap'. Working Paper. Brighton: IDS

Hernandez, K. (2019) 'Barriers to digital services adoption in Bangladesh'. K4S Helpdesk Report, (https://assets.publishing.service.gov.uk/media/5d7f5d0ced915d52428dc0ce/573_Leave_No_One_Behind_in_a_Digital_World_Barriers_and_Constraints_in_Bangladesh.pdf)

Hossin, M.A., Sarker, M.N.I., Xiaohua, Y. and Frimpong, A.N.K., (2018), August. Development dimensions of e-commerce in Bangladesh: scope, challenges and threats. In Proceedings of the 2018 International Conference on Information Management & Management Science (pp. 42-47).

Hunt, A. and Samman, E., (2016). Women's economic empowerment: Navigating enablers and constraints. UN High Level Panel on Womens Economic Empowerment background paper. London: Overseas Development Institute.

IFC – International Finance Corporation (2020) 'Business Pulse Survey: impact of COVID-19 on MSMEs in Bangladesh'. Washington DC: IFC

Irani, B. (2020) 'e-CAB seeks Tk240cr assistance, additional Tk600cr in soft loans'. Dhaka Tribune, 13 May (https://www.dhakatribune.com/business/commerce/2020/05/13/e-cab-seeks-tk240cr-assistance-additional-tk600cr-in-soft-loans)

Islam, Md. S. (2018) 'E-commerce in Bangladesh: growth and challenges' Journal of Business and Management 20(3): 10–15

Islam, Md. Z. (2020) 'Online grocers fail to seize the day during biggest opening yet'. The Daily Star, 28 April (https://www.thedailystar.net/business/news/online-grocers-fail-seize-the-day-during-biggest-opening-yet-1897495)

Islam, P. and Roest, J. (2020) 'Hiding in plain site: informal e-commerce among Women in Asia'. CGAP Blog, 18 February (https://www.cgap.org/blog/hiding-plain-site-informal-e-commerce-among-women-asia)

ITC – International Trade Centre (2018) 'What sells in e-commerce; evidence from Asian LDCs'. Geneva: ITC

ITU – International Telecommunications Union (2018). ICT indicators database. Geneva.

Karim, M. & Qi, X. (2018). E-commerce Development in Bangladesh. International Business Research, 11(11), 201–208.

Khan, L. (2017) 'Amazon's antitrust paradox' Yale Law Journal 126(3): 710–805

LightCastle (2020a) 'Bangladesh IT and digital sector: tackling COVID-19 implications'. 2 April (https://www.lightcastlebd.com/insights/2020/04/bangladesh-it-and-digital-sector-tackling-covid-19-implications)

LightCastle (2020b) 'E-commerce in Bangladesh struggling to capitalize on opportunity'. 21 May (https://databd.co/stories/e-commerce-in-bangladesh-struggling-to-capitalize-on-opportunity-11716)

LightCastle (2020c) 'Delivery services in Bangladesh: coping with COVID-19'. 17 June (https://databd.co/stories/delivery-services-in-bangladesh-coping-with-covid-19-12228)

LightCastle (2020d) 'COVID-19 impact: industries experiencing growth due to the pandemic'. 17 June (https://www.lightcastlebd.com/insights/2020/06/covid-19-impact-industries-experiencing-growth-due-to-the-pandemic)

LIRNEasia (2018) 'AfterAccess: ICT access and use in Asia and the Global South'. (https://lirneasia.net/wp-content/uploads/2018/10/LIRNEasia-AfterAccess-Asia-Report.pdf)

NAWG – Needs Assessment Working Group (2020) 'COVID-19: Bangladesh multi-sectoral anticipatory impact and needs analysis'. (https://reliefweb.int/sites/reliefweb.int/files/resources/COVID_NAWG%20Anticipatory%20Impacts%20and%20Needs%20Analysis.pdf)

New Age (2020) 'Rules eased for export from Bangladeshi e-com platforms' (https://www.newagebd.net/article/124914/rules-eased-for-export-from-bangladeshi-e-com-platforms)

OECD – Organisation for Economic Co-operation and Development (1997) 'Committee for Information, Computer and Communications Policy Measuring Electronic Commerce'. OCDE/GD(97)185. Paris: OECD

Ovi, I.H. (2020) 'Apparel exports fall by over 18% in FY20'. Dhaka Tribune, 2 July (https://www.dhakatribune.com/business/economy/2020/07/02/bangladesh-apparel-exports-fall-by-18-45-in-fy20)

Pathways for Prosperity (2018) 'Charting pathways for inclusive growth: from paralysis to preparation'. Oxford: Blavatnik School of Government, Oxford University

Sayem, A.H. (2020) 'Adaptability of technology, digitisation in Bangladesh's RMG sector'. The Financial Express, 31 December (https://thefinancialexpress.com.bd/views/views/adaptability-of-technology-digitisation-in-bangladeshs-rmg-sector-1609425899)

Stucke, M. and Grunes, A. (2016) Big data and competition policy. Oxford: Oxford University Press

The Business Standard (2020) 'Covid-19: e-commerce facing Tk666 crore losses per month'. 13 May (https://tbsnews.net/economy/covid-19-e-commerce-facing-tk666-crore-losses-month-81061)

The Daily Star (2020a) 'ADB on Bangladesh: high outbreak of Covid-19 may hurt economy'. 4 April (https://www.thedailystar.net/frontpage/news/adb-bangladesh-high-outbreak-covid-19-may-hurt-economy-1889335)

The Daily Star (2020b) 'The dark side of e-commerce'. 26 September (https://www.thedailystar.net/editorial/news/the-dark-side-e-commerce-1967709)

The Financial Express (2020) 'BD economy grew 5.24pc in FY20 amid pandemic'. 14 August (https://thefinancialexpress.com.bd/economy/bd-economy-grew-524pc-in-fy20-amid-pandemic-1597136362)

UNCTAD – United Nations Conference on Trade and Development (2017) Maximizing the development gains from e-commerce and the digital economy. Geneva: UNCTAD

UNCTAD (2019) 'Bangladesh rapid e-trade readiness assessment'. Dhaka: UNCTAD (https://unctad.org/system/files/official-document/dtlstict2019d6_en.pdf).

WTO – World Trade Organization (2017) 'Work Programme on Electronic Commerce'. Communication from the African Group. JOB/GC/155, 20 November. Geneva: WTO

WTO (2020a) 'Report of the TPRB from the director-general on trade-related developments: mid-October 2019 to mid-May 2020'. WT/TPR/OV/W/14, 10 July. Geneva: WTO

WTO (2020b) 'The E-Commerce Moratorium: scope and impact'. Communication from India and South Africa. 10 March. Geneva: WTO

This and other related publications is an outputs of the Bangladesh Trade Policy and Negotiation Capacity Building Support Project Phase I supported by TAF2+.

The project is led by Overseas Development Institute in conjunction with The Policy Research Institute, Bangladesh

Authors are expected to take full responsibility for any errors or omissions contained written outputs of this project.