



ICT POLICY REVIEW: NATIONAL E-COMMERCE STRATEGY FOR EGYPT





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NOTE

Within the Division on Technology and Logistics of UNCTAD, the ICT Policy Section carries out policy-oriented analytical work on the development implications of information and communications technologies (ICTs) and the digital economy, and is responsible for the biennial production of the Information Economy Report. The ICT Policy Section, among other things, promotes international dialogue on issues related to ICTs for development, such as e-commerce and entrepreneurship in the technology sector, and contributes to building developing countries' capacities to design and implement relevant policies and programmes in these areas.

The ICT Policy Section hosts the UNCTAD ICT Policy Review (ICTPR) Programme, which aims to support accelerated economic growth and development through effective diagnostics, national assessments, strategy development and policy advice to countries requesting technical assistance in areas such as e-commerce and ICT planning.

PREFACE

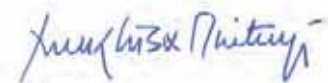
E-commerce is expanding rapidly in developing countries. As more goods and services are traded online, it becomes increasingly important for enterprises to have an online presence. E-commerce is facilitated by improved connectivity and the rapid proliferation of mobile phones, social media and new innovations. At the same time, many developing countries need to overcome various barriers to seize the full benefits from the evolving digital economy.

UNCTAD's ICT Policy Review Programme supports countries seeking to formulate a national e-commerce strategy through effective diagnostics, policy advice and customized strategy development. Egypt is the first country to benefit from the use of the ICTPR integrated e-commerce diagnostic framework.

Egypt has a consumer market of more than 90 million people, most of whom are younger than 30 years of age and increasingly technology-savvy. Internet penetration stands at 37.8 per cent, implying one of the largest populations of prospective online shoppers in the Arabic-speaking world. However, due to several barriers and challenges, e-commerce has been slow to take hold, and its potential is still largely untapped.

At the request of the Ministry of Communications and Information Technology (MCIT) of Egypt, UNCTAD is proud to have been given the opportunity to develop this national e-commerce strategy. It seeks to leverage Egypt's strengths while tackling the bottlenecks and challenges that impede e-commerce in the country. The publication sets out six sub-strategies, recommendations aimed at strengthening Egypt's performance in key policy areas, and six megaprojects. It is supplemented by an action plan to support the implementation of the strategy. Through these measures, the new strategy will help Egypt to position itself for more e-commerce and more benefits from e-commerce.

On behalf of UNCTAD, I would like to express our appreciation for the excellent collaboration with MCIT, other government offices, the private sector and civil society in Egypt. The strategy development has also benefited from partnerships and cooperation with the World Bank and several other United Nations agencies. My hope is that the analysis and recommendations contained in this report will make a valuable contribution to Egypt's efforts at leveraging e-commerce for economic growth, job creation and socioeconomic prosperity. I warmly commend those involved in the strategy development at UNCTAD, the Government of Egypt, and all the partners and collaborators for their efforts.



Mukhisa Kituyi
UNCTAD Secretary-General

FOREWORD

The Government of Egypt has been long committed to harnessing the significant advantages that ICTs can bring to national economic and social development. Since its establishment, the Ministry of Information and Communications Technology (MCIT) has been championing policy developments in the area of ICT for development, which has led to unprecedented growth in the Egyptian ICT sector, especially during the last couple of years.

I view future years as the dawn of a new era for Egypt's digital economy, with even more Egyptians going online. Ensuring that Egypt taps its full potential for e-commerce growth to drive its digital economy is important from the perspective of the Sustainable Development Goals, in particular Goal No. 8: "Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all". E-commerce in Egypt can play a crucial role in achieving the country's developmental goals, as Egypt aspires to harness the power of e-commerce to help catalyse innovation, growth and social prosperity in the digital economy; support and enhance trade; enable the development of new businesses and services; and increase people's welfare.

For this reason, the Government of Egypt collaborated with UNCTAD in the development of its national e-commerce strategy. The strategy comprises six sub-strategies aligned with our national priorities, including recommendations, megaprojects and an action plan. The strategy is a solid foundation for stimulating e-commerce growth in Egypt throughout the coming years.

I wish to express my appreciation for all the efforts and dedication by UNCTAD on this strategy. Egypt is heading steadily towards achieving better economic performance, inclusive growth and sustainable development. This strategy is a concrete step towards bringing this aspiration into reality.



Yasser El Kady
Minister of Communications and Information Technology
Egypt

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In addition to the partnership with the World Bank, the strategy benefited from valuable inputs from the International Labour Organization, the Universal Postal Union, the United Nations Educational, Scientific and Cultural Organization, the International Trade Centre; the Organisation for Economic Co-operation and Development, the European Commission and the World Intellectual Property Organization. The strategy also benefited from interdivisional cooperation within UNCTAD and interdepartmental cooperation within the United Nations Secretariat.

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ABBREVIATIONS

4G	fourth generation of wireless mobile telecommunications technology
B2B	business-to-business
B2C	business-to-consumer
BPO	business process outsourcing
C2B	consumer-to-business
C2C	consumer-to-consumer
CAPMAS	Central Agency for Public Mobilization and Statistics (Egypt)
CBE	Central Bank of Egypt
CIT	Chamber of Information Technology and Communications (Egypt)
CPA	Consumer Protection Agency (Egypt)
EBC	Egyptian Banking Company
ERP	enterprise resource planning
FDI	foreign direct investment
GAFI	General Authority for Investment
GDP	gross domestic product
ICT	information and communications technology
ICTPR	ICT Policy Review
ILO	International Labour Organization
IoT	Internet of Things
IT	information technology
ITES	information technology enabled services
ITI	Information Technology Institute
ITIDA	Information Technology Industry Development Agency
ITO	information technology outsourcing
KPI	key performance indicator
KPO	knowledge process outsourcing
MCIT	Ministry of Communications and Information Technology
MENA	Middle East and North Africa
MSE	micro and small enterprises
MSME	micro, small and medium-sized enterprises
NGO	non-governmental organization
NTRA	National Telecommunication Regulatory Authority
OECD	Organisation for Economic Co-operation and Development
QoS	quality of service
R&D	research and development
SME	small and medium-sized enterprise
TIEC	Technology Innovation and Entrepreneurship Centre
UNCTAD	United Nations Conference on Trade and Development
UNESCO	United Nations Educational, Scientific and Cultural Organization
UPI	Unified Payments Interface
UPU	Universal Postal Union
VAT	value added tax
WTO	World Trade Organization

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EXECUTIVE SUMMARY

A. Context for the strategy and opportunities for e-commerce

With technological innovations playing a catalytic role in driving the economy and the rapid uptake of ICTs, e-commerce is increasingly becoming an imperative for more inclusive economic growth and competitiveness in developing countries.

E-commerce has strong potential to expand in Egypt and to help accelerate national economic growth. Following intensive investment in ICT infrastructure since the mid-1980s, Egypt in the past two decades has developed a strong ICT sector by liberalizing the telecommunications sector, creating an environment conducive to an expansion of its information technology (IT)-enabled services industry, and cultivating an information society with wider diffusion of ICTs and the Internet. As one of the most dynamic and fastest-growing sectors, representing almost 3 per cent of gross domestic product (GDP) in 2015/16, the ICT sector is in a good position to support e-commerce activities.

Egypt's e-commerce market has grown gradually since the late 1990s, when the first Egyptian-owned e-commerce companies were founded. However, the market is still in its infancy. E-commerce business-to-consumer (B2C) activities in Egypt were estimated to have reached US\$ 544 million in 2015/16. This forms approximately 0.4 per cent of total retail sales, which amounted to about US\$ 133 billion, according to an AT Kearney report in 2016. Egypt has seen a proliferation of commercial websites, in areas ranging from tourism to entertainment, and an increasing number of transaction-based sites. Although some hundred listed e-commerce players had been identified in Egypt as of 2014, the market is largely dominated by a handful of companies. The past five years have seen an accelerating number of new or revamped local e-commerce start-ups and major regional players entering the market.

With its consumer market of more than 90 million people – around 60 per cent of whom are younger than 30 years of age and increasingly technologically and social media-savvy – Egypt, with its 30 million Internet users in 2015/2016 and a level of penetration of 37.8 per cent, has the largest population of prospective online shoppers in the Arab world. Egypt's geographical location at the crossroads of Africa, the Middle East, the Mediterranean and Europe makes it an attractive regional hub ripe for e-commerce growth. This potential remains untapped.

1. Leveraging Egypt's key strengths

Central to unleashing e-commerce as an engine of growth is leveraging Egypt's key strengths. Egypt has forged ahead in building its technology sector with aims to become a "smart" country, where all services and utilities are automated and where the forthcoming era of the Internet of Things (IoT) will bring e-commerce to a new level.

While much remains to be done, the Government has made strong efforts to transition the Egyptian population into the information society and the digital age. ICT market deregulation, coupled with large-scale measures to introduce ICT and the Internet, have led to improved affordability of smartphones, tablets, personal computers and telecommunications services, and a jump in the numbers of Egyptians with online aptitude. Mobile penetration in Egypt stands at 110 per cent and about 37.8 per cent of Egyptians use the Internet, including in rural areas, forming a considerable market size. Telecom Egypt's current roll-out of fourth generation of wireless mobile telecommunications technology (4G) will significantly improve broadband services. These efforts, as well as the enactment of e-commerce-friendly laws, such as the e-signature law in 2004 and the consumer protection law in 2006, have helped to pave the ground for more Egyptians to engage in e-commerce and for growing the online consumer market.

Egypt has a good ICT infrastructure and, with its 4G roll-out, is currently replacing all copper infrastructure with optical fibre in its national backbone across the country. Continuous improvement and investment in the infrastructure need to take place, however. The country also has a good infrastructure of data centres, and is well positioned to grow its cloud computing industry.

Egypt has gained recognition as one of the top global destinations for contact centre and business process outsourcing (BPO) services, offering low-cost, quality services. This is supported by state-of-the-art technology parks and a large young talent pool of skilled, university-educated workers who are multilingual and well trained in ICT and business skills. There is also a large number of high-quality Egyptian engineers.

Egypt is an important player in IT exports, expected to reach US\$ 1.87 billion in 2017, with a mature software development and systems integration sector. Its local manufacturing industry for electronics and home appliances is also growing. Local production and services industries flourish in sectors that could potentially benefit from the e-commerce marketing channel (such as textiles, agro and food processing, and tourism). While the majority of businesses are small and many are active in the informal sector, a mature retail market and various nationwide retail brands exist, primarily in major cities.

Youth entrepreneurship is expanding. Egypt possesses a growing entrepreneurship environment with a fledgling “Silicon Valley” start-up scene in the Greek Campus in central Cairo, the Technology Innovation and Entrepreneurship Center (TIEC) in Smart Village, and a number of other innovation and incubation spaces, contributing to making Cairo a dynamic tech hub for small and medium-sized enterprises (SMEs) and tech start-ups.

Egypt’s national payment system and its effective regulation and oversight by the Central Bank are additional strengths, providing a strong foundation on which e-payment mechanisms for e-commerce can be developed and function safely. Egypt also benefits from a well-functioning logistics sector for Cairo and its peri-urban areas and well-established postal sector, with postal offices in nearly every part of the country, though this is largely untapped for e-commerce.

2. Tackling challenges

Overcoming remaining challenges is crucial for seizing the potential of e-commerce in Egypt. The following are findings on the key barriers impeding Egypt on the basis of a diagnostic conducted making use of UNCTAD’s ICTPR E-commerce Enabler and Assessment Framework, an integrated framework assessing the e-commerce ecosystem in eight key strategic pillar areas (see figure 1).

a. ICT infrastructure and telecom services

The primary challenge of Egypt’s telecommunications sector is to improve the supply of high-speed broadband services and to alleviate overloaded networks that affect the quality of service (QoS). Access in Egypt’s rural areas needs to be strengthened. In this context, additional spectrum will need to be allocated as users take up more services. Fixed and mobile broadband transmission capacity overall will also need to rise at double-digit rates for the foreseeable future, to keep up with increases in demand. With regard to the provision of fibre to the home and office, base transceiver stations appear to be a bottleneck to improve access to fixed broadband connectivity, not least among households in rural areas.

b. Logistics and trade facilitation

E-commerce requires fast, reliable delivery with effective tracking systems. Egypt Post is modernizing the National Postal Authority with the building of an electronic network connecting its more than 3,900 branches throughout Egypt’s 28 provinces. Complications relating to handling cash on delivery and concerns over reliability of services are challenges that the postal sector has to contend with to become a regular logistics provider in cooperation with the private sector in e-commerce.

While the logistics sector flourishes in Cairo and its peri-urban areas, standard service is less viable in rural and remote areas and in governorate city centres outside of Cairo. There is also need for logistics services between governorates. Egypt Post, with its extensive postal infrastructure, remains largely untapped for e-commerce. Egypt’s main e-commerce retailers, such as Jumia and Souq, manage their logistics primarily by working with regional and international logistics companies, such as Aramex, DHL, FedEx and smaller providers. While these e-retailers can deliver e-commerce products to remote areas, this comes at delivery costs that are prohibitively high for rural residents. Dramatic reduction in logistics costs will be needed for e-commerce to expand to rural areas.

Egypt is in the process of installing a single windows system, which should expedite customs procedures, but slow and burdensome clearance procedures at customs currently hamper the country's ability to handle an increased volume in traffic from e-commerce. Customs delays discourage online buyers – be they individuals or enterprises – from making purchases. Ambiguity about returns policies also causes bottlenecks at customs. For SMEs, shipping online purchased goods to consumers overseas, the costs of shipping internationally are often very high and a deterrence to tapping into the international e-commerce market.

c. Legal and regulatory environment

While Egypt has some e-commerce-friendly laws in place, such as the e-signature law and the consumer protection law, the legal and regulatory framework can be further strengthened. As it has been more than a decade since its enactment, Egypt may wish to update and amend the e-signature law to sharpen it and accommodate new developments in the electronic transactions sector. The issuance of an e-government law, including an e-signature mechanism between entities, is important for the development of key e-services and impacts areas such as taxation, licensing and e-procurement. The consumer protection law can be strengthened by the adoption of a distance sales article, as well as measures in online dispute resolution. Treatment of the issue of intermediary liability of internet service provider intermediaries is important to support and facilitate e-commerce. Adequate data protection is important to raise Egypt's attractiveness as a location for information technology enabled services (ITES), as well as improve its ability to attract foreign direct investment (FDI) into the BPO/knowledge process outsourcing (KPO) sector. Strong cybersecurity measures are similarly important for e-commerce and supporting service-provider companies. There is need for greater understanding of the legal and regulatory adaptations that would help Egypt's industries to grow through new technologies, such as IoT and 3D printing, including with regard to intellectual property.

d. E-payments

While Egypt has a sound regulatory environment for electronic payments, factors such as a cultural preference for cash to resistance to change in traditional ways of doing business work against the uptake of e-payments and impedes e-commerce use. Although Egypt boasts the largest number of credit card holders in the region, albeit small as a proportion of the population, they are often reluctant to use their cards. The penetration of debit cards is rapidly expanding, but they are frequently not activated for e-commerce purchases. In recent years, a number of mobile payment solutions have been offered by a few banks, though the uptake has been below expectations and, further, they are not enabled for e-commerce purchases. As a result, over 90 per cent of e-commerce transactions are paid in cash on delivery. The limited portion of the population with access to e-payment services by itself is also a major barrier to e-payments for e-commerce. This is especially the case in rural areas, where penetration of banking channels, familiarity and confidence in using banking services and ability to meet the "know your customer" (KYC)¹ requirements pose a challenge.

e. Taxation

Egypt currently does not have a specific policy or treatment of taxation on e-commerce. With rapid developments in the global market in e-commerce and Egypt's growing e-commerce market, the Government should study and adopt such a policy and put in place a simplified online mechanism for value added tax (VAT) collection related to e-commerce.

f. E-commerce platforms

Egypt has a handful of e-marketplaces and e-commerce and related platforms. This includes online supermarket Knockmart, job sites Wuzzuf (consumer-to-consumer (C2C)) and OLX (C2C), education e-marketplace Nafham, price comparison site Yaoota, as well as regional e-commerce multi-category e-marketplaces Jumia and Souq (both primarily B2C). Continued growth of these e-marketplaces, e-retailers and related platforms is important. In addition, the domestic market is large enough for more diversity in terms of e-retailers and the types of goods and services they offer. Many of Egypt's current offline national brands and retailers have the opportunity to establish an online presence. Egypt also has untapped potential for national business-to-business (B2B) and consumer-to-business (C2B) platforms, in particular in the Arabic language.

g. Skills development

While Egypt graduates a high number of skilled university students and talent each year, more skills training and e-commerce-specific curriculum in higher education is important to boost skills and e-commerce engagement. This includes skills training and apprenticeships in key vocational areas and curriculum relevant to e-commerce, such as online store management, digital marketing, social media marketing, shipping and fulfilment services, payment and related financial services, and data analytics.

Furthermore, e-commerce skills development is also needed among working professionals across industries in the private and public sector, such as the judiciary, the banking system and the Government. Businesses are in need of hands-on training and business development support in e-commerce applications, in particular in new technologies, in order to upgrade their operations, and innovate and enhance productive capacity. The Chamber of Information Technology and Communications (CIT), the Industrial Modernization Center and the Eitesal Organization currently can help provide training on e-commerce for enterprises of different sizes, and could play a key role in supporting this.

Across the wider population, e-commerce-related skills training is needed to raise the rate of digital literacy, in particular in rural areas, to enable more Egyptians to use the Internet, buy online, and use online payment and other ICT-related activities. This is important for expanding rural e-commerce and building the consumer base.

As with the majority of developing countries, Egypt needs to handle the rapid growth of its youth population, including by adapting its education infrastructure at the primary and secondary school levels. While the public school system introduces students to ICTs and computers, greater funding and reform in the education system are needed to more effectively promulgate digital literacy skills for students whose education does not proceed beyond the high school level.

Effectively matching the skills of skilled youths, many of whom are ICT- and social media-savvy, with greater employment opportunities is essential. Apart from the employment of many youths in contact centres and IT-enabled services, the wealth of ICT and social media skills available to grow e-commerce can be further tapped.

h. Awareness-raising

Greater awareness is important to boost e-commerce growth. As e-commerce is largely in its infancy, improved knowledge of the phenomenon can help to enhance its appeal to consumers and businesses. Consumers and small enterprises need to learn more about how e-commerce may benefit them. They may be unaware of how to buy in an online marketplace or how online payments work. Filling information gaps and raising awareness in these diverse areas are crucial.

Egypt's Consumer Protection Agency (CPA) can play a key role by helping to educate consumers on their rights relating to e-commerce. Awareness of consumer rights in this area is low. This also acts as a barrier to the uptake of e-payments. The problem is exacerbated in rural areas. The CPA could launch a national initiative specifically on e-commerce, and target both urban and rural populations.

In the enterprise sector, many businesses have no awareness of the utility or value of e-commerce or selling online. Small businesses, in particular, would benefit from more awareness of consumer rights and their businesses' obligations to consumers with regard to e-commerce. In this context, CIT and the Eitesal Organization can provide training on e-commerce for enterprises as well as generally raise awareness about e-commerce. Many other stakeholders – including retailers, e-commerce platform companies, banks, Egypt Post and schools – should contribute to raising awareness and disseminating information on e-commerce and related e-payments and services, leveraging all media channels.

i. E-procurement

When administered in a way that encourages open tendering and competition, electronic procurement can stimulate the modernization of SMEs and provide incentives for SME use of ICTs and e-commerce. It can also serve as a way to introduce government employees to an in-house type of e-commerce transactions. By requiring government employees to place e-procurement orders for low-value goods for in-house use – for example, items

and services such as office supplies, janitorial and facilities supplies, and other lower-cost items – governments can help staff develop e-commerce skills that can be transferred to the private domain.

By law, all entities in the Government of Egypt are required to publish request for proposals on the government procurement portal in addition to publishing them offline. While the law does not appear to be in practice, Egypt accords strong importance to e-government, and e-procurement starts to stand out recently among government priorities.

3. Opportunities

a. Large youth and skilled labour pool and cost efficiencies in the ITES and BPO sector

Egypt enjoys a talent pool of youth who are highly educated, multilingually skilled and trainable. There is an abundant number of graduates from computer science, engineering and other specialized fields. The Information Technology Institute (ITI) provides professional capacity-building programmes every year, as well as online training provision for graduates. In addition, there are many training centres throughout Egypt, including public and private training centres. With the recent devaluation of the Egyptian pound, the low cost of labour makes Egypt internationally highly competitive. Egypt's talent pool and training support environment provide opportunities for e-commerce companies seeking to outsource their customer services, businesses seeking to expand their call centres and BPO operations, as well as for multinational companies sourcing qualified local staff for specialized corporate back office and business support services in areas such as engineering, software development, enterprise resource planning (ERP), cloud computing, financial analysis, human resources, legal affairs, marketing and other services.

b. Sound regulatory framework and inflexion point for e-payments

With its good regulatory framework and rapid increase in the number of adults with access to e-payment mechanisms, Egypt stands at an inflexion point, and is well positioned to transition toward more widespread use of e-payments. Newly issued financial regulations have removed constraints previously restricting a more rapid growth of mobile money accounts. These regulations open up the role of Egypt Post's financial services with its more than 24 million postal bank accounts and the agents systems to foster rapid adoption of mobile money, including in rural areas, among the unbanked and in the delivery of payments for microfinancing. Further initiatives aimed at switching government payments to electronic channels have strong prospects for further accelerating the usage of e-payments for e-commerce. The financial technology market, also known as fintech, refers to businesses providing financial services by making use of software, modern technology and largely innovative solutions. Fintech players are already active in Egypt's e-payment services market and have the potential to play an even greater role.

c. Strong ICT sector and potential opportunities in IoT and 3D printing

Opportunities exist for the growth and expansion of existent sectors in Egypt, for example, in its IT sector and software development, as demand for e-commerce applications rises and market access expands. Opportunities in traditional sectors such as logistics and retail also exist, particularly should these sectors step up to the challenge to upgrade and grow with the emerging IoT market. In the long-term horizon in the area of research and development (R&D), Egypt has strong potential and opportunities for developing new markets relating to IoT and 3D printing, in particular in IoT Smart Greenhouses, and which could, should proper long-term investments and planning be undertaken, dramatically enhance the country's productive capacity and export competitiveness, particularly in horticulture.

d. Untapped consumer population, including social media-savvy youth population

The strong potential of Egypt's large consumer population, in particular its large youth social media-savvy segment, is another opportunity to exploit. Investments and initiatives in Egypt in establishing national B2C and B2B platforms, in particular in Arabic, as well as other key e-commerce-related commercial services, have potential to pay off.

e. Egyptian businesses and global supply chains

E-commerce offers opportunities to many businesses to extend their market reach and to become competitive producers for the local market or as part of global supply chains. This includes suppliers of traditional Egyptian products such as handicrafts, furniture and textiles, as well as agricultural products and other rural products of micro, small and medium-sized enterprises (MSMEs).

B. The strategy and its key policy recommendations

UNCTAD proposes a strategy plan comprised of six key sub-strategies for the National E-commerce Strategy for Egypt, each with its own set of recommendations integrated collectively, as well as six megaprojects. The strategy is supported by an action plan that outlines its implementation, as well as a customized set of key performance indicators (KPIs) designed specifically for Egypt to aid in monitoring progress over time. The following recommendations underlie the proposed strategic interventions.

Overarching strategic objective: Leverage e-commerce to increase the wealth of the nation through economic growth, export competitiveness, enhanced productive capacity and job creation

In the context of Egypt's overall national objectives, e-commerce should serve as a conduit to increase the wealth of the nation through economic growth, export competitiveness, enhanced productive capacity and job creation. Currently, B2C and B2B e-commerce sales correspond to a conservative estimate of about 0.57 per cent of GDP. From a macroeconomic lens, e-commerce can facilitate growth in selected industries and spur job creation, in particular youth employment. Export-promotion institutions and trade agreements can be leveraged to foster e-commerce exports. Key government processes are also important, including modernization of government IT infrastructure to allow for seamless digital processes, and the establishment of an adequate legal and regulatory framework.

1. Empowering businesses through e-commerce

Empowering businesses is at the core of the e-commerce strategy. Egypt aims to double by 2020 the number of companies, currently about 14,725, that do business online. B2B e-commerce remains largely unexploited by both large and small businesses in Egypt. With rapid advances in technology, converting manual processes to digital ones is not as costly and complicated as in the past. B2B – whether through direct selling or a B2B e-marketplace – can give Egyptian businesses the advantage of reduced transaction costs, greater efficiencies, and higher productivity and profitability. While the infant e-commerce market is growing, its full potential is far from exploited. Many established Egyptian retailers do not have an online presence. Few small businesses are online or making use of an e-marketplace. B2B and public e-procurement are greatly underused. Strategic investments in and financing for e-commerce companies are hence crucial. Creating a favourable regulatory environment for e-commerce, including for export facilitation, and skills development are important for empowering businesses to expand in domestic and international markets.

2. Leverage e-commerce to incentivize formalization of the informal sector

The digital economy also offers opportunities to include microenterprises in the informal sector. In the absence of formal sector employment, informal enterprises absorb the bulk of livelihood activities. Formal microenterprises account for up to 80 per cent of employment in many developing countries. As micro and small enterprises (MSEs) in the informal sector are not captured in national reporting, the actual contribution of the MSE sector to the economy is even larger. The informal sector helps to absorb work capacity and to stimulate entrepreneurship. However, it also strains the economy, creating unfair competition for formally registered small businesses. E-commerce can serve as a channel for incentivizing informal MSEs to formalize with the help of appropriate incentives.

3 Leverage e-commerce to exploit the strengths and opportunities in the ICT sector

E-commerce should be leveraged to exploit the strengths and opportunities of Egypt's ICT sector. This will involve investment in and continuing modernization of infrastructure, especially with Egypt's current implementation of 4G. The country's strength in IT talent, for example in software, should be harnessed for greater exports of IT and IT-enabled services. New and innovative digital products from Egypt's IT sector can facilitate greater government revenue. Egypt's technology sector is a key driver of Egypt's promising entrepreneurship and innovation. Fostering high-calibre IT talent and attracting skilled talent from abroad can further foster e-commerce.

4. Boost growth in the logistics sector and make Egypt into a regional logistics hub

Egypt should leverage e-commerce to galvanize growth in the logistics sector. Egypt's many logistical advantages can be exploited and help launch the country as a regional logistics hub. In order to succeed, several key steps are needed. Customs clearing needs to be simplified and accelerated. Domestic logistics capabilities and service delivery levels should be strengthened to enhance regional and international logistics and supply chain efficiency. Making use of trade agreements to facilitate exports to trading partners (for example, the European Union, United States, sub-Saharan Africa, Gulf Cooperation Council and China) will be crucial, including through the installation of automated exports systems. Egypt Post can play a big role due to its penetration throughout the country and its ability to deliver. The cooperation of Egypt Post and domestic and international logistics partners is key in this context.

5. Accelerate growth in the e-payments sector

While Egypt has a sound payments system in place and a base of people holding credit cards, debit cards and access to other forms of e-payment, such as mobile payments, encouraging the use e-payment and its acceptance among retailers remains crucial. Expanding the number of people with access to e-payments, particularly in rural areas, and increasing e-payment methods for e-commerce are necessary. This will require effective cooperation among the banks, the postal sector and the retail industry. It will be necessary to increase the percentage of the population with access to transaction accounts. Elimination of barriers to e-payment usage is necessary for boosting e-commerce. Fostering security and trust in e-payments and incentivizing e-payments should be done in conjunction. With the high penetration of mobile phones, mobile payments, in particular in rural areas, are also an opportunity to further exploit for e-commerce.

6. Build Egypt's consumer market for e-commerce

With its large population of Internet users, in particular among the youth, and as the largest Arabic-speaking country in the region, Egypt's consumer market has huge untapped potential. Building Egypt's consumer market for e-commerce will require multi-stakeholder cooperation cutting across several policy and strategic areas. Awareness-raising and skills development are as important here as is building a favourable regulatory environment, including consumer protection. Developing Arabic language content and fostering rural e-commerce would help accelerate the process. In addition, the sheer size of Egypt's market creates opportunities for building consumer market-based industries, such as digital marketing and advertising and consumer market research, creating a potential advantage that Egyptian business could subsequently leverage in other Arabic-speaking countries.

C. Proposed megaprojects

Six megaprojects are proposed to support the achievement of the strategy and its sub-strategies:

Megaproject 1: Creation of an e-commerce business facilitation hub

The e-commerce hub would serve as a central point of information on how enterprises can engage in and benefit from e-commerce. It would offer an online portal with relevant information on how to start an online business, highlighting different options depending on the type of goods or services that the enterprise will be offering. The portal would provide easy access to valuable resources, such as established market places, legal

information, advisory services and more. It would serve as a gateway for entrepreneurs and MSEs to access relevant government authorities as well as training programmes.

Megaproject 2: Construction of a national B2C e-marketplace

While there are a handful of e-marketplaces in Egypt, domestic MSEs would benefit from a B2C e-marketplace for products “made in Egypt”. It would be a public–private partnership with initial support from the Government, but designed to achieve independence and long-term sustainability. E-marketplaces such as Jumia and Souq are targeting certain segments of the market. The national e-marketplace would complement them by serving, in particular, niche products by local MSE producers for sale in Egypt and abroad. It could aim at facilitating cross-border e-commerce on selected items, a service which existing e-marketplaces in Egypt are largely not providing.

Megaproject 3: Launch a rural e-commerce development initiative

This initiative would seek to seize the potential for rural e-commerce. Some 30 per cent of online shoppers in Egypt live in rural areas. The development of rural e-commerce would require public–private partnerships. The initiative would build on the experience of other countries, such as China and Thailand, for example, China's Alibaba Rural Taobao initiative (refer to box 15). A similar business model could be tested and adapted for the Egyptian context. The Egyptian model would need to rely on available resources, for example, on Egypt's network of chambers of commerce, Egypt Post, and local e-commerce players, backed up by strong support from the Government.

Megaproject 4: Empower youth and SMEs for e-commerce

Egypt's many online social media-savvy youths offer potential for the e-commerce sector. In 2016, Egyptians between 15 and 29 years of age comprised more than half of all online shoppers. Egyptian youths have shown themselves to be socially conscious, activism-oriented and proficient users of technology for civic and service-related causes, with capacity for entrepreneurship and innovation. This initiative would aim at soliciting unemployed university graduates to help SMEs build their websites or create virtual stores on available e-marketplaces, and promoting freelance opportunities in Arabic. It would also leverage the youth capacity of the industry by proposing the creation of digital content and a marketing hub for Arabic content in the industry's key tech parks. While the Government would catalyse, support and coordinate the initiative, it would need to secure a commitment by the private sector to empower youths and SMEs for e-commerce.

Megaproject 5: Activate and create additional e-commerce payment methods

This project will seek to establish an authentication framework like 3D-Secure and universal adoption of this by banks, in order to set the ground for safely activating and enabling all debit cards in the market for e-commerce. In addition, it will create and/or strengthen two additional e-commerce payment methods in Egypt. These are: (a) bank account-based electronic payments either via Internet (i.e. ACH-enabled payments) or some other electronic direct payment from bank account (i.e. Deal, Unified Payments Interface (UPI)); and (b) e-money products, including mWallet, and strengthened interoperability among them. In parallel and in cooperation with Egypt Post where possible, there will be initiatives to promote the usage of e-payments for e-commerce by promoting awareness, creating industry-wide promotional campaigns such as luck draws and lotteries, and adoption of a zero liability for customers when transactions are not authorized by the payment service user.

Megaproject 6: Brand Egypt's BPO/ITES sector

Currency devaluation has made the BPO/ITES industry in Egypt internationally very competitive, making per seat cost very low for BPO. This megaproject will aim to strengthen this industry through a branding initiative.



CHAPTER 1:
INTRODUCTION

A. E-commerce for national growth and development in developing countries

1. Policy rationale

Electronic commerce, or commerce conducted through electronic networks or electronic platforms, offers developing countries strong opportunities for inclusive economic growth.² With new technological innovations playing a catalytic role in driving the economy, and the rapid uptake of ICTs in more countries, e-commerce is increasingly becoming an imperative for economic growth and competitiveness.

E-commerce offers potential benefits to enterprises in the form of enhanced participation in international value chains, increased market access and reach, and improved internal and market efficiency, as well as lower transaction costs. For consumers, online shopping helps comparisons of prices and features of a wider range of products. It also allows consumers to shop at times convenient to them and to have products delivered to their homes.

The growing digitalization of economies is affecting the way business is conducted, with significant implications for both national and international supply chains. E-commerce channels have deepened and expanded through the rapid proliferation of mobile phones, including among the rural poor in developing countries, as well as through the growth of e-marketplaces, social media, omni-channel commerce, broadband diffusion, mobile apps and a myriad of other technological innovations and practices. A critical mass of ICT-connected consumers with the growing interest in buying online has emerged in many countries.

Recent UNCTAD estimates show that e-commerce is expanding rapidly, with global e-commerce at US\$ 25 trillion in 2015. B2B e-commerce accounted for more than US\$ 22 trillion, while B2C sales amounted to nearly US\$ 3 trillion. Of this, the United States is by far the largest market for e-commerce, with combined sales of more than US\$ 7 trillion in 2015, with Japan and China some distance behind. While the United States is ahead by some margin in B2B e-commerce, it is just behind China in the B2C segment.³ The rapid pace at which e-commerce is growing requires governments and businesses to adapt and to enhance their readiness to address both opportunities and challenges created by the shift towards online sales. This applies equally to Egypt.

Empowering MSEs through e-commerce is important for strengthening the national economy. Small businesses have been identified as engines of growth and are considered a backbone for economic expansion by many governments, in whose countries these small businesses often constitute up to 80 to 90 per cent of national GDP.

Microenterprises, in particular those owned by women, generate crucial income for households, particularly during periods of economic hardship. Leveraging e-commerce to support the economic viability of these businesses helps not only the business, but the members of the household, with potential economic and social benefits, such as the combating of poverty, reduction of hunger, care for the elderly, the stronger well-being of children, and benefits accruing to the local community and future generations.

2. Strategic drivers of e-commerce in developing countries

Several factors have in recent years helped to open up the potential for e-commerce in developing countries.

Expanding ICT connectivity

The spread of mobile phones has made ICTs accessible to greater segments of populations in developing countries. For entrepreneurs and small enterprises, ICTs are increasingly becoming an invaluable and indispensable tool for running a competitive business and engaging in e-commerce. But to fully harness their potential, it is essential to secure access to affordable broadband connectivity.

Growing online consumer base

Many consumers in developing countries are already active online and the numbers continue to grow. However, most of these Internet users are not making purchases online. For example, while as many as 85 per cent of all Internet users in the United Kingdom buy goods and services online, the equivalent share was only 5 per cent in Egypt.⁴ In the next decade, these shares are likely to grow rapidly, as consumer participation shifts increasingly from bricks-and-mortar shops to electronic marketplaces. A growing middle class with disposable income further increases the likelihood of this population turning to online shopping.

New e-commerce applications, platforms and services

With the increasing uptake of e-commerce, new and innovative e-commerce applications, platforms and services have emerged. Some of these involve new e-commerce platforms and e-payment solutions largely spearheaded in developed countries. Others have emerged and taken root in developing countries tailored to specific circumstances and demand patterns. The availability of such platforms and services reduces the barriers for small enterprises to engage in e-commerce.

The availability of e-marketplaces with fulfilment services and the rise of e-commerce companies in developing countries

The availability of e-marketplaces with reliable and cost-effective fulfilment services can serve to drive a critical mass of MSEs to sell their products online. Many new e-commerce companies have emerged in a number of developing countries. While the e-commerce market is still nascent, there is large untapped e-commerce potential in many of these countries.

Growing awareness

Growing awareness is crucial to the expansion of e-commerce, particularly in developing countries. Lack of e-commerce awareness among government, businesses and consumers remains a major barrier to its growth.

3. Barriers and opportunities in the global context

E-commerce is transformational. On the one hand, it reduces market entry barriers for MSMEs. Online tools are no longer a luxury, but a necessity for running a competitive business, even in the developing world. Never before has access to the global market and overseas markets been easier for skilled MSMEs. Thus, B2B and B2C e-commerce presents a number of proven and potential benefits, such as enhanced participation in international value chains, greater market access and reach, improved internal and market efficiency, and lower transaction costs. It may spur job creation in the ICT and e-commerce sector and in enterprises that become more competitive thanks to their use of online procurement and sales.

On the other hand, benefits from e-commerce do not accrue automatically and e-commerce also raises concerns. It redefines the marketplace. It fiercely increases competition among firms in the retail market within and across countries, making e-commerce knowledge a vital competitiveness factor. For example, traditional bricks-and-mortar stores have to adapt to enhanced price transparency and competition by providing new online sales channels, investing in new equipment and services, building complementary skills and revising their business strategies. The transition to online sales is not easy, in particular for MSEs. Even leading retailers have wrestled with this challenge. There is the risk that technology-savvy foreign competitors outdo local firms, gaining greater market shares from e-commerce compared to local firms.

Online trade has also expanded the number of incidents and geographic reach of certain crimes and fraudulent activities. Governments may furthermore be concerned with tax erosion and transfer pricing.⁵

B. Purpose and methodology of the strategy

The national e-commerce strategy was developed by UNCTAD's ICTPR Programme based on the request of the Government of Egypt, represented by MCIT. The strategy benefited from partnership with the World Bank on the sub-strategy on e-payments, involving a comprehensive diagnostic of Egypt's payments ecosystem for e-commerce, as well as inter-agency cooperation through substantive contributions from ILO, UPU, the International Trade Centre, UNESCO, OECD, the European Commission and the World Intellectual Property Organization. The strategy also benefited from interdivisional and interdepartmental cooperation within UNCTAD and the United Nations Secretariat. Rural Taobao, of Chinese e-commerce company Alibaba, served as an advisor on rural e-commerce issues. It was financially supported by Mastercard.

At the request of the Government of Egypt, the national e-commerce strategy aims to help achieve the following objectives:

- Create job opportunities and entrepreneurship;
- Boost economic development through increased exports;
- Promote social development through new SMEs and jobs;

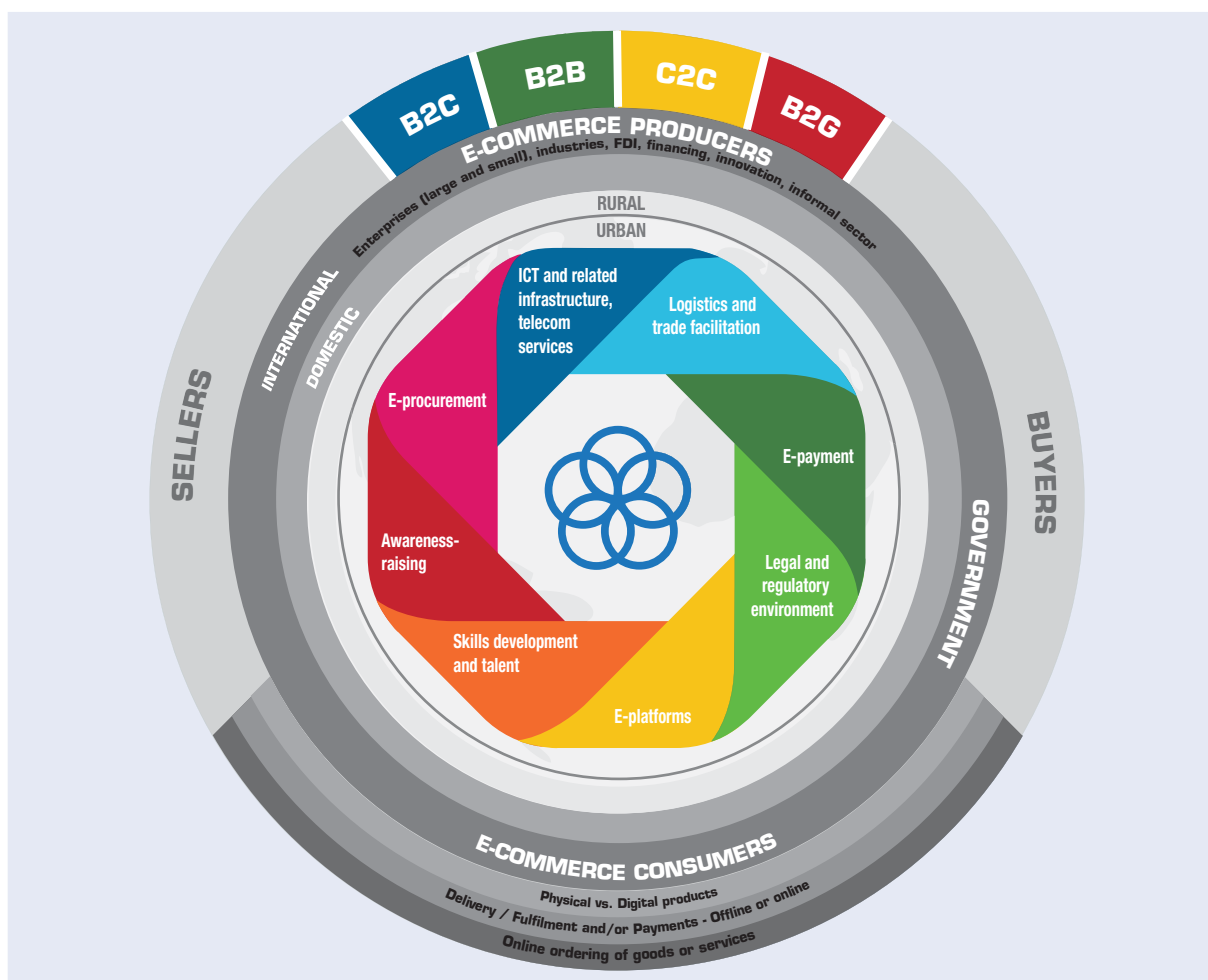
- Help mitigate other problems of the Egyptian society, such as excessive traffic and environmental problems, for example, through digital and green ICT solutions;
- Increase Egyptian businesses' productivity and profitability.

The team conducted a comprehensive diagnostic and assessment of the status of e-commerce in Egypt on the basis of UNCTAD's ICTPR E-commerce Enabler and Assessment Framework (see figures 1 and 2). The Framework methodology was designed to serve a triple purpose for Egypt's strategy development, namely to provide (a) a systematic integrated and holistic analytical framework for the e-commerce diagnostic; (b) an organizing structure for the formation of inter-agency partnerships for the work; and (c) a framework for key performance indicators for benchmarking and monitoring e-commerce progress in Egypt. ICTPR research, analysis and methodological work produced

for the development of Egypt's national e-commerce strategy fed into and supported the preparation of UNCTAD's *Information Economy Report 2015*.⁶

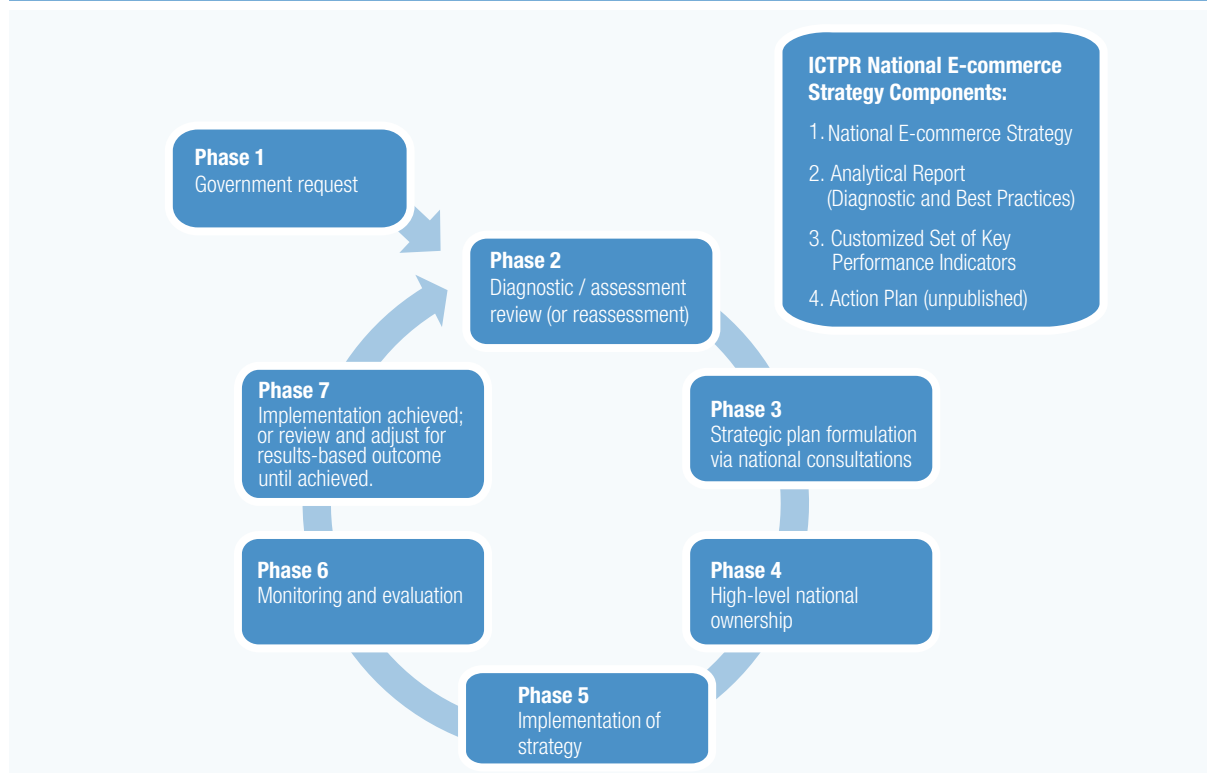
Several fact-finding missions in Egypt, desk research and analysis, interviews and consultations with approximately 100 government officials and other key stakeholders, took place. A preliminary SWOT (strengths, weaknesses, opportunities and threats) analysis of the country's e-commerce potential, challenges and opportunities in the light of current trends and best practices in Egypt was completed and presented to the Government. Several surveys on e-commerce by MSEs, payment and the banking sector and IT clubs were designed by UNCTAD and conducted by MCIT and other local entities. The strategy also benefitted from survey cooperation with ILO and UNESCO. For survey information, see annex 1. The final strategy document was published and launched in 2017 (see figure 3).

Figure 1. E-commerce Ecosystem in Egypt⁷



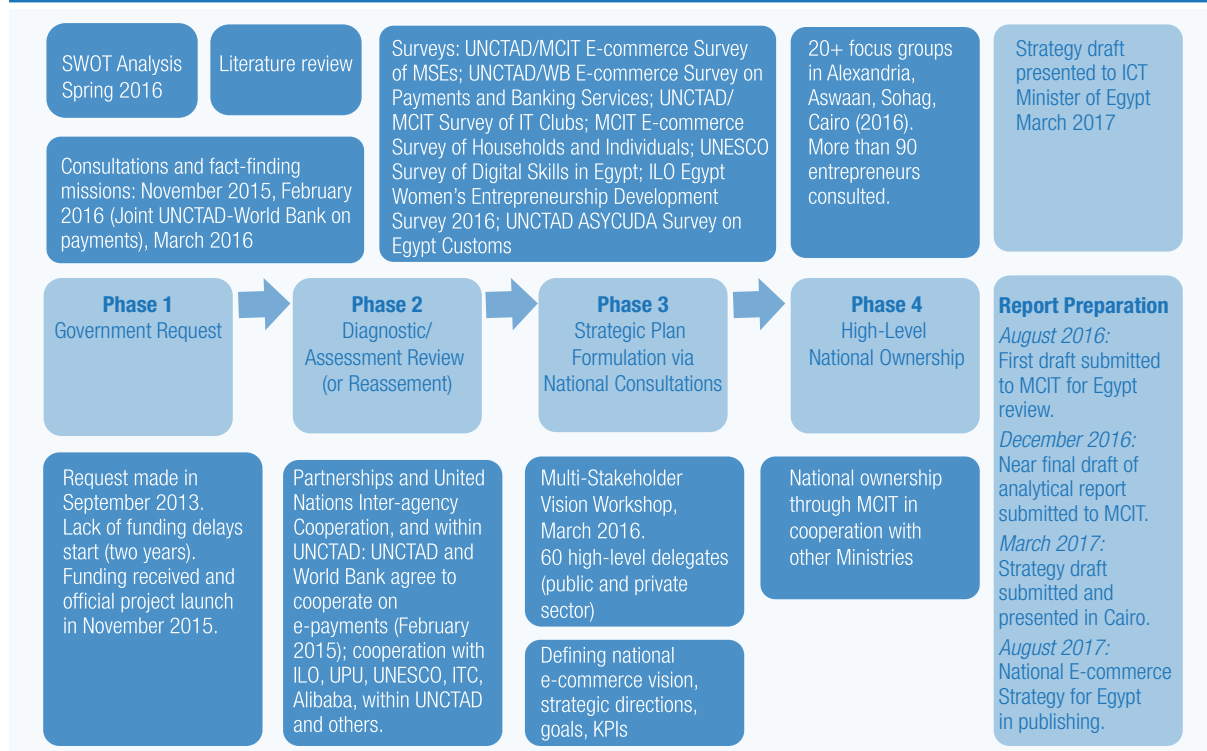
Source: UNCTAD.

Figure 2. Phases for Developing a National E-commerce Strategy⁷



Source: UNCTAD.

Figure 3. Development of National E-commerce Strategy for Egypt: First Four Phases⁷



Source: UNCTAD.

A photograph of an older man with glasses and a young girl with a pink headband looking at a smartphone together. The man is holding the phone, and the girl is pointing at the screen. They are outdoors, with green foliage in the background. A blue diagonal graphic element is on the left side of the image.

CHAPTER 2: THE E-COMMERCE MARKET AND ECOSYSTEM IN EGYPT

A. Egypt's e-commerce market size and forecasted growth

Obtaining information on Egypt's e-commerce market size is challenging, due to the lack of regularized survey data on e-commerce. A 2015 Payfort report estimated that Egypt has approximately 15.2 million e-shoppers, the highest in the region, and places Egypt's total market size in terms of retail sales as the third largest in the Middle East, following the United Arab Emirates and Saudi Arabia.⁸

Available data indicate that B2C e-commerce in Egypt reached an estimated US\$ 544 million in 2015/16. With total retail sales amounting to US\$ 133 billion in 2015, e-commerce forms only about 0.4 per cent of that market in Egypt.⁹ This indicates that Egypt has a significant untapped potential for further growth of B2C e-commerce. See table 1 for international benchmarks.

B2C e-commerce's ratio to GDP in the year 2015/16 was estimated to be about 0.2 per cent. A conservative forecasted growth rate in e-commerce of 35 per cent annually puts Egypt on the trajectory to generate US\$ 1.9 billion in B2C e-commerce volume by 2020. This represents an increase from 0.2 per cent to 1.52 per cent in Egypt's e-commerce-to-GDP ratio from the years 2015/16 to 2019/20.¹⁰ Based on the growth of local and international e-commerce players, the expansion of online product catalogues and potential conversion of "informal e-commerce" players on Facebook and Instagram to a more formal set-up, a number of market research companies predict Egypt's growth in the e-commerce sector at a substantially higher rate, at least 45 per cent annually. See table 2 for international benchmarks.

Data on combined MSME B2B e-commerce and large enterprise B2B e-commerce in gross merchandise volume are not available. As call centres and the outsourcing industry play an important role in supporting e-commerce operations and are a low-cost way of establishing e-commerce business infrastructure (by providing labour-intensive, technical or specialist skills, services and back-office operations – i.e. customer service, accounting, financial analysis, IT support including hosting services, online marketing and advertising, ERP, etc.), a crude estimate of the B2B services sector may be correlated with growth in Egypt's outsourcing industry.

In 2015, exports through the outsourcing industry reached US\$ 1.6 billion, comprising BPO, information technology outsourcing (ITO) and KPO. On the basis of past trends, industry experts estimate that the BPO industry was worth around US\$ 760 million in 2015. The KPO industry, in itself, is estimated to be worth about US\$ 180 million according to local industry experts; subsequently, ITO exports range around US\$ 660 million.¹² BPO industry experts forecast that the industry will grow to approximately US\$ 1.05 billion by 2020, reaching a ratio of about 0.8 per cent of GDP.

In total, a preliminary forecast estimates that combined B2C and B2B – taken as the value of BPO B2B e-commerce and B2C e-commerce respectively – may reach almost US\$ 3 billion by 2019/20, amounting to 2.35 per cent e-commerce ratio to GDP in 2020.¹³ Further efforts and targeted e-commerce strategic measures implemented by the Government can help to accelerate this growth.

Table 1. Retail E-commerce as a percentage of total retail sales (2016), selected countries

China	18.4
Republic of Korea	12.1
United States	8.2
India	2.5
Indonesia	2.2
Malaysia	1.2
Russian Federation (the)	3.0
Argentina	1.7
Egypt*	0.4
Brazil	2.5
Middle East and Africa region (average)	1.8

Source: eMarketer Worldwide E-commerce Retail Sales Report 2016.

* Data source MCIT,A.T. Kearney (2016).¹¹ May not be cross-comparable with eMarketer data.

Table 2. Top 15 countries, ranked by retail e-commerce sales growth, 2015–2020 (percent change)

Rank	Country	2015	2016	2017	2018	2019	2020
1	India	129.5	75.8	60.3	40.1	23.9	22.0
2	Indonesia	65.6	64.3	55.3	32.9	20.6	18.5
3	Argentina	69.5	50.3	42.5	33.5	28.7	22.1
4	China*	42.1	35.6	32.6	29.8	25.8	24.1
5	Philippines (the)	46.5	27.3	25.0	21.5	19.8	16.2
6	Mexico	30.0	27.0	25.0	22.0	20.3	18.9
7	Viet Nam	43.5	24.3	22.0	18.5	16.8	13.2
8	Malaysia	31.5	21.0	22.6	17.6	16.8	15.8
9	Thailand	22.1	20.7	19.5	18.8	18.1	17.6
10	Russian Federation (the)	22.7	19.3	17.4	15.0	14.7	12.8
11	United States**	15.0	15.7	15.2	14.8	14.4	14.0
12	Singapore	17.5	15.2	14.0	12.1	11.0	9.8
13	Canada	16.8	14.9	13.8	13.5	13.0	12.3
14	Brazil	15.5	13.5	11.5	10.0	9.3	8.0
15	Spain	13.9	12.8	11.4	8.8	7.4	6.3

Source: eMarketer Worldwide E-commerce Retail Sales Report 2016.

Note: Includes products or services ordered using the internet via any device, regardless of the method of payment or fulfilment; excludes travel and event tickets.

* China: Excludes Hong Kong, China.

** United States: Forecast from May 2016.

B. Egypt's e-commerce market

1. Consumer e-commerce (B2C and C2C)

Though still in its infancy, Egypt's e-commerce market has had some early successes since the first e-commerce sites and Internet businesses were established in Egypt in the late 1990s/early 2000s. For example, Otlob, an e-commerce business established in 1999, pioneered the concept of online food ordering in the Middle East and North Africa (MENA) region.¹⁴ E3050, founded in 2004, is reported to be the first e-retailer in Egypt (electronics). Other examples include sites such as freedaysegypt.com (tourism), tahriracademy.org (online education), alborglab.com (health), as well as in the media sector with advertising-based Arabic news portals Masrawy, Egypt's first and most popular news site (1999), and sports news site Filgoal (2001).

In 2015, there were an estimated 450 e-commerce websites in Egypt.¹⁵ In the multi-category online retailers and e-marketplaces, the top two e-marketplaces in Egypt for several years were established regional players Souq (United Arab Emirates) and Jumia (Rocket Internet/Nigeria). Currently, Souq and Jumia,

which entered the Egyptian market in 2011 and 2012, respectively, are the main e-commerce companies and have played a major role in helping to grow e-commerce in Egypt. Yaoota, Egypt's first search engine price comparison site for online shopping, was founded in 2014. On the basis of its search results data, Yaoota reported that Souq and Jumia garnered 60–70 per cent of the total visits to e-commerce websites in 2015, with the remaining 30–40 per cent of visits distributed among remaining e-commerce players.¹⁶ Souq was purchased by e-commerce giant Amazon in March 2017.

In Egypt, there is a proliferation of Egyptian e-commerce companies and growth in the local market, particularly in niche markets. In recent years, the Egyptian e-commerce market has shown dynamism, with a growing rate of new e-commerce start-ups, though the survival rate or rapid, sustained growth of many of these start-ups in many cases is tenuous and prone to high turnover. Online grocery shopping is growing among small-scale grocers. Established in 2014, Knockmart.com is a unique Egyptian online supermarket chain, which has grown rapidly to become one of the largest of its type in the region, and is the first comprehensive online shopping experience in Cairo¹⁷ that delivers groceries, household goods and other lifestyle

essentials directly to clients' doors within 60 minutes. See table 3 for popular consumer e-commerce sites in Egypt.

Additionally, the e-commerce services sector is also thriving, including with the rapid growth of the car-sharing service Uber, which began operations in Egypt in 2015, and Careem and has experienced massive growth. Egypt is now among Uber's largest markets in the Middle East. Egypt enjoys a thriving app market with the popularity of a number of applications, in particular among Egyptian youth, for example Be2ollak (providing real time traffic information) and EIMenus (a food discovery platform with more than 3,000 restaurant menus). While many of the most popular apps are free, their widespread use gives an indication of the growth potential of mobile commerce and smartphone app-driven e-commerce goods and services.

In the past, a number of the country's existing store-based retailers and companies have expanded by building websites or rolling out mobile apps presenting their products and/or selling their products to customers. These include (a) Egypt Air; (b) Samsung Appliance (under the Mansour Group); (c) Compume, Computer Shop and Radio Shack (computer store chains); and (d) Diwan Bookstores (leading distributor of books and cultural products). Large numbers of local Egyptian brands, however, continue to lack an online presence.

The recent acquisition of Souq by Amazon in early 2017 is believed to help raise the prospect of a wider range of products and offerings to Egyptian and regional consumers, and the potential for a more dynamic and rapid growth of the e-commerce market and logistical operations. Amazon and the Government are discussing the opening of an Amazon logistics hub in Egypt, as well as collaboration in support of exports of Egyptian products.¹⁸ In late 2017, the launch of a new regional Arab-funded B2C e-marketplace, Noon, is also expected to intensify competition in the region.

With regard to C2C e-commerce, the Egyptian C2C e-commerce market is dominated by regional player OLX Egypt, formerly known as Dubizzle (United Arab Emirates), which has an Egypt-based site, as well as foreign website eBay (United States). Popular jobs sites are Egyptian site Wuzzuf and Bayt (United Arab Emirates). In addition, Egypt has a number of highly popular news sites, such as Masrawy.com, which features comprehensive classifieds sections. Car advertisements are the predominant type of ad in Egyptian C2C sites.

2. B2B e-commerce

Egypt's large outsourcing and BPO industry is an important player in providing international B2B and B2B-managed services for international clients delivered electronically over ICT networks. The ITES

Table 3. Popular Consumer E-commerce Sites in Egypt

E-commerce category	Ownership		
	Egyptian	Foreign, Egypt-based	Foreign
Online travel, ticketing, etc.	Memphistours, Freedaysegypt		
E-retailer	Cairocart (electronics), Edfa3ly, Lynks, Yashry (Shop and Ship), Hedeya (baby and children's products), Ariika (furniture), Knockmart (groceries), Mazika.com (music), Neelwafurat.com (books), Styletreasure.com (designer clothing), E3050 (electronics), Otlab (food delivery)	Jumia (Nigeria), Souq*(United Arab Emirates)	Amazon (United States), Aramex (Shop and Ship, United Arab Emirates)
E-marketplace		Jumia (Nigeria), Souq*(United Arab Emirates)	Amazon (United States)
Online deals	Offerna (group buying site)		
Online portals classified	Wazzuf (jobs), Masrawy, Filgoal (news and media)	OLX (United Arab Emirates), Bayt (jobs, United Arab Emirates)	eBay (United States)

Source: UNCTAD.¹⁹

* Acquired by Amazon in 2017.

market was estimated to be worth US\$ 1.7 billion in 2016, and has been forecast to grow to US\$ 2.14 billion by 2019.²⁰ At the national level, Egypt has had some early successes in national B2B. For example, Speedsend.com is a B2B enterprise established in 2000 in response to the need for businesses to procure goods for their operations. It continues to operate with thousands of users spread over more than 35 corporate clients and operating several warehouse facilities.²¹ Nonetheless, B2B remains largely underdeveloped in Egypt and represents an area with growth potential. Opportunities exist for Egypt to provide service delivery to its domestic market to support national B2B development.²²

The two broad categories of B2B in Egypt are (a) independent businesses buying or selling from other businesses through in-house or outsourced e-procurement; and (b) platform-based sellers selling to other businesses through B2B e-marketplaces.

As computer penetration is higher within Egypt's business community than for the general population, there are opportunities to leverage B2B to strengthen Egypt's business and industrial sectors, in particular with the advent of data analytics and IoT, and their strong capacity to create efficiencies in inventory management, production and manufacturing processes. In some sectors, large Egyptian companies are reported to use in-house websites in order to manage inventory. For example, Misr Aluminum uses B2B e-commerce to sell large quantities of aluminium to clients around the world.²³

Overall, however, while a more comprehensive examination of B2B adoption is needed on an industry basis, consultations with Egyptian businesses indicate that the majority of independent businesses, including large nationwide retailers in the food sector, have not yet embraced e-commerce to connect with trading partners.

There is limited use of standard electronic data interchange, non-standard proprietary vendor-managed inventory and web-based solutions to onboard new suppliers and manage communications, procurement and supply processes electronically among multiple trading partners. Greater ICT use could help to enhance operating efficiencies and productive capacity, and reduce procurement cycle time, inventories and supply chain costs.

Following this cue, the many Egyptian SME suppliers with which these large enterprises trade and have

business linkages similarly have limited incentives to shift to digital processes. With more multinational enterprises based in Egypt further aiming to procure local sourcing to produce their products, due to the currency devaluation of late 2016 and subsequent high cost of imports, ensuring that local Egyptian suppliers have B2B e-procurement capacity becomes more important.

With regard to e-marketplaces, Egypt has originated a small number of B2B e-marketplaces. This includes the aforementioned Speedsend, which operates six e-catalogues displaying over 2,000 items in office supply and technology products, as well as the Government's TradePoint and TradeEgypt, Egypt's global B2B marketplace. Overall, however, growth in this B2B market has been slow. The number of B2B e-marketplaces that have proven to be sustainable is limited, and their diffusion and usage among national businesses are very weak.

There exist a number of foreign B2B platforms and e-marketplaces used by Egyptian companies. This includes regionally-based/targeted platforms Tradebanq (United Arab Emirates), Tradekey (Saudi Arabia) and Toggar (Euro-Arab). Other examples include Alibaba, Amazon Business, EC21.com, MFG.com (manufacturing), Allactiontrade.com and tradeboss.com. A number of vertical industry B2B e-procurement platforms exist, such as Cardinal Health (health supplies) (United States). China has constructed a number of high-traffic global B2B e-marketplaces designed around industries where the country has manufacturing strengths and export capacity, including Globalsources.com, Mysteel.net (steel in China) and Made-in-China.com (electronics in China). Raising awareness among Egyptian businesses about effective use of these foreign B2B platforms and e-marketplaces for sourcing purposes, as well as to promote Egyptian exports, is important.

B2B is also growing in targeted business markets in the form of e-commerce companies offering technology solutions. For example, search engine optimization technology company Yaoota, launched in 2014, rolled out Egypt's first search engine optimization web tool enabling shoppers to compare prices online²⁴ and thereby helped fill a technology gap in the e-commerce market. Tech company Eventtus, which developed a highly successful engagement platform for event management, has become the leading event app provider in the MENA region.

Competitiveness in the online jobs market involving B2B technology firms that develop innovative online recruitment solutions for enterprises and organizations is also on the rise. Founded in 2000, Bayt.com (United Arab Emirates), the largest online recruitment agency in the Middle East, has long been the leader in online job recruitment in Egypt, in particular with the opening of Bayt operations in Egypt in the early 2000s. The 2009 launch of the Egyptian online recruitment site, Wuzzuf, has generated a large market share and is on the way to becoming the country's largest online recruitment site. Other forms of B2B e-commerce include Microsoft and IBM's provision of cloud-based services to businesses, outsourcing operations through companies such as Xceed, Ecco, Etisal, Int. Salec and Alcatel, as well as online advertising, which was estimated to be worth approximately 500 million Egyptian pounds over a 12-month period in 2015 and 2016.²⁵

3. Business-to-government e-commerce

In terms of public e-procurement involving the online purchase of suppliers' goods and services by the Government, the Ministry of State for Administrative Development is responsible for developing an e-procurement portal in collaboration with the General Authority for Government Services. The government e-procurement portal enables supplier registration, the publication of government tenders and the centralized procurement of common goods.²⁶ Registration is open to Egyptian firms that wish to do business with government departments registered on the portal. The use of the Internet for sending or receiving procurement or selling orders by Government of Egypt entities is currently low. From 2011 to 2012, for example, it fell from about 10 per cent of all government entities to about 2 per cent. However, data from more recent years indicate the buying of goods and services through Internet by government entities increased from about 1–2 per cent to 8 per cent.²⁷

C. Egypt's consumer market for e-commerce

Egypt is one of the largest economies in Africa, with a population of more than 90 million people, of which the median age is 23 (see table 4). An estimated 30 million (38 per cent of population), largely social media- and tech-savvy youths, are Internet users. Mobile broadband penetration is at approximately 51 per cent as a ratio of

the number of mobile subscriptions per 100 inhabitants. MCIT estimates that about 42 per cent of households use broadband from home and have access to the Internet over a fixed broadband connection.²⁸

Egypt's GDP was US\$ 336.3 billion in 2016 in current prices and, with a current GDP per capita of US\$ 3,514.5 in 2016,²⁹ it is categorized as a lower middle-income country.³⁰ The population is concentrated along the Nile Valley and the Nile Delta. Egypt's population disaggregated by urban and rural areas is estimated to be about 43 per cent urban and 57 per cent rural, one of the lowest urban percentage populations in the MENA region.

Due to the size of its population and the high penetration rate of both Internet and mobile phones, Egypt is one of the main forces behind the fastest-growing MENA e-commerce market.³¹ The potential for online retail is strong. Among the potential first users and early adopters of e-commerce in the country are the estimated 5 million "A class" consumers, who are educated, tech-savvy, seeking high-quality and reasonably-priced products and services, and have an average income of US\$ 1,200 per month.³² In addition, as a result of improved living standards over time, there has been growth in the retail and fast food sectors, and increasingly more Egyptian consumers have become brand conscious, drawn to popular brands and convenient service, including among youth.

E-commerce in Egypt has not yet benefited, however, from the considerable market of large population and abundant Internet users. Egyptians spend approximately 23 hours on the Internet per week, followed by television (18 hours per week), radio (12 hours per week) and books (7 hours per week). See table 5.

While as many as 80 per cent of such users in 2015/16 were leveraging the Internet to stay in touch with friends and families on social media, only 5.3 per cent of those age 15+ who reported to have used internet in the last 12 months were buying products online. Thus, there is considerable potential for B2C e-commerce to grow in Egypt.

A 2016 Survey on E-commerce Usage by Households and Individuals conducted by MCIT indicated that the age group of 15–29 years comprised more than 50 per cent of total online shoppers, while Egyptians in the age group of 33–44 years accounted for more than 30 per cent of online shoppers (see box 1).

Table 4. 2016 Population indicators, by youth, density and urban, and GDP per capita, selected countries

Country	2016 total population (thousands)	2016 population density (number per km2)	2016 urban population (% of total population)	2016 youth population (15–29 years, thousands)	2016 youth population (15–29 years) as % of total population	2015 GDP/capita (US\$ Current)
North Africa						
Algeria	40 606	17	71.3	10 185	25.1	4 154
Egypt	95 689	1 153*	43.2	24 673	25.8	3 452
Libya	6 293	4	78.8	1 636	26.0	5 488
Morocco	35 277	78	60.7	8 956	25.4	2 919
Tunisia	11 403	73	67.0	2 711	23.8	3 661
Middle East						
Bahrain	1 425	1 838	88.8	376	26.4	22 600
Iran (Islamic Republic of)	80 277	49	73.9	20 914	26.1	5 038
Iraq	37 203	86	69.6	10 245	27.5	4 509
Israel	8 192	379	92.2	1 779	21.7	37 129
Jordan	9 456	87	83.9	2 586	27.4	4 940
Kuwait	4 053	225	98.4	834	20.6	29 304
Lebanon	6 007	585	87.9	1 706	28.4	8 571
Oman	4 425	15	78.1	1 356	30.7	15 551
Qatar	2 570	197	99.3	813	31.7	73 653
Saudi Arabia	32 276	15	83.3	7 800	24.2	20 711
State of Palestine	4 791	797	75.5	1 433	29.9	2 716
Syrian Arab Republic	18 430	101	58.1	5 040	27.3	1 535
United Arab Emirates	9 270	111	85.8	2 268	24.5	40 439
Yemen	27 584	52	35.2	8 490	30.8	1 106
BRICS and other						
Brazil	207 653	25	85.9	51 862	25	8 528
China	1 403 500	147	56.8	302 459	21.6	8 109
India	1 324 171	446	33.1	356 962	27	1 614
Russian Federation (the)	143 965	9	74.1	26 568	18.5	9 243
Turkey	79 512	1043	73.9	19 436	24.4	9 126

Sources: Data on total population and youth population aged 15–29: United Nations, Department of Economic and Social Affairs, Population Division (2017). World Population Prospects: The 2017 Revision - Special Aggregates, DVD Edition. Data on population density: United Nations Statistical Yearbook – 59th issue (2016 edition), available from <https://unstats.un.org/unsd/publications/statistical-yearbook/>. Data on urban Population: World Bank; World Development Indicators. Data on GDP/Capita Current US\$: UNCTAD Stat; Country profiles.

* Refers to 2015/2016 population density in Egypt's inhabited areas. Source: Egyptian Center for Economic Studies, Egypt's Economic Profile and Statistics, available from www.eces.org.eg/MediaFiles/Uploaded_Files/e7b0ad3f.pdf.

Table 5. Time spent with media by consumers in selected countries in the Middle East and Africa 2015 (mean hours per week)

Country	Internet	Television	Radio	Books	Newspapers	Magazines
Qatar	32	15	8	6	4	3
Tunisia	29	26	15	5	3	2
United Arab Emirates	26	21	6	5	4	2
Lebanon	26	20	7	4	3	2
Egypt	23	18	12	7	6	4
Saudi Arabia	20	18	3	3	3	2
Total	26	19	8	5	4	2

Source: eMarketer.

Note: Ages 18+ among users of each medium.

Box 1. E-commerce consumers in Egypt

A 2016 Survey on E-commerce Usage by Households and Individuals conducted by MCIT on a sampling size of 1,000 households showed that 5.3 per cent of the Internet users had bought online in the previous 12 months,³³ while 47.5 per cent had searched or surfed the Internet for goods and services in the same period. Among those who shopped online, the top three types of items purchased were in the categories of (a) “clothing, footwear, sporting gear and accessories” (28 per cent); (b) “electronic equipment” (19 per cent); and (c) “computers and IT equipment” (15 per cent). The most popular methods of payment were cash on delivery (59 per cent) followed by mobile payments and credit card (both at 18 per cent).

E-commerce consumers were primarily male (69 per cent) and relatively young, with the age group of 15–29 years comprising 53 per cent of all online shoppers, followed by those aged 33–44 years of age (33 per cent). Those shopping online were primarily urban-based (70 per cent). With regard to work status, the largest group of online purchasers was not in the labour force (34 per cent), followed by employees in the private sector (20 per cent) and employees in the government sector (19 per cent). The majority had a university degree (56 per cent) or a high school education degree (31.5 per cent), and preparatory education (6.6%).

Among the key reasons cited for not shopping online were a lack of interest or need (mentioned by 61 per cent of the non-shoppers), a preference for seeing the product (40 per cent) and a lack of trust that the product would be delivered (36 per cent).

Source: Egypt's 2016 Survey on E-commerce Usage by Households and Individuals.

Statistics for 2015 showed that daily visitors of e-commerce websites in Egypt amounted to 12 million–18 million, in contrast to news websites, which attracted 17 million–20 million visitors per day. The spread of e-commerce in Egypt is still limited compared to other countries.³⁴

D. Summary assessment³⁵

1. Fostering e-commerce and e-commerce impacts on the Egyptian economy

E-commerce has strong potential to expand in Egypt and to help accelerate national economic growth. Following intensive investment in ICT infrastructure since the mid-1980s, Egypt in the past two decades has developed a strong ICT sector by liberalizing the telecommunications sector, creating an environment conducive to an expansion of its IT-enabled services industry, and cultivating an information society with wider diffusion of ICTs and the Internet. As one of the most dynamic and fastest-growing sectors, representing almost 3 per cent of GDP in 2015/2016, the ICT sector is well placed to support e-commerce activities.

With a population of over 90 million people, the largest in MENA, and an Internet penetration rate of 37.8 per cent in 2015/16, Egypt has the largest market of prospective online shoppers in the region.³⁶ Its consumer population is growing by 2 million a year and is expected to reach 100 million by 2020. Add to that an Internet penetration increase between 2010

and 2015 by 16%, and Egypt's B2C retail market – including underserved local, rural and remote markets unreached by mainstream retailers – stands poised for significant growth.³⁷

Egypt's B2B e-commerce market similarly has strong untapped potential. The country has the most diversified economy in the Arab world, with revenue streams based on a number of non-oil tradeable sectors, including the following sector value added as per cent of GDP in 2015/16): agriculture (11.2 per cent), mining (12.5 per cent), manufacturing (15.8 per cent), communication and information (2.9 per cent), trade (13.4 per cent), financial intermediaries (3.9 per cent), real estate services (9.5 per cent) and tourism (1.6 per cent).³⁸ The country has one of the largest automotive industries in Africa, is a leading manufacturer of reinforced steel in the Middle East, and has a globally top-ranked outsourcing and IT exports industry which is considered the leader in the MENA region.³⁹ Adopting B2B to strengthen efficiencies and internal processes, reduce costs, generate export demand, raise profitability, and facilitate cross-industry linkages and cooperation is important across all these industries.

E-commerce can help to liberate the country's entrepreneurial dynamism and galvanize MSMEs into powerful engines of growth. Egypt boasts a strong supply of engineers, software developers and tech entrepreneurs in Cairo's fast-growing tech hubs and start-ups scene. It also has many entrepreneurs in (a) traditional businesses such as shop-keeping, restaurants, trade, tourism, manufacturing and

services; (b) small farmers, cotton growers and livestock farmers in the agriculture sector; and (c) home-based handicraft and artisanal entrepreneurs. Entrepreneurs also range socio-demographically, including women entrepreneurs, youth entrepreneurs, urban entrepreneurs, and entrepreneurs in second- and third-tier cities,⁴⁰ rural and remote cities and villages. Each of these groupings of entrepreneurs has specific needs and faces unique challenges. An ILO 2016 Women's Entrepreneurship Development Assessment Survey,⁴¹ conducted in cooperation with the strategy development, found that, while women entrepreneurs represent a small proportion of all formal enterprises, many are active in the informal sector. Some are prevented from using e-commerce and ICTs by a lack of knowledge regarding potential benefits. All of them stand to gain from e-commerce and its "empowerment tech", which can unleash potential across the full range of these entrepreneurs.

While Egyptian enterprises are increasingly adopting Internet usage for their businesses (59.8 per cent in 2015/16), there is still untapped potential. As seen in figure 4, larger enterprises (measured by number of employees) tend to engage more in e-commerce activities. Around 6.6 per cent of companies which used the internet are engaging in e-commerce. On the other hand, Internet use and e-commerce among MSEs is still very limited (see box 2). Dedicated efforts are needed to enable more of them to engage in and benefit from e-commerce.

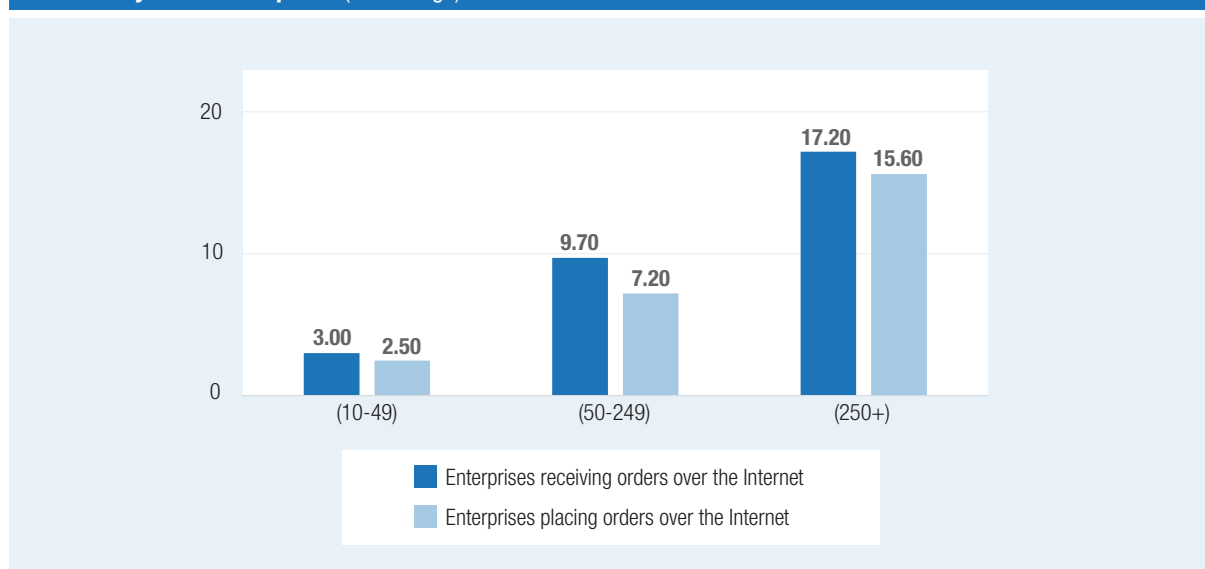
Egypt has several strategic exports sectors, and the Government has long held exports as a key strategic priority, which in 2015 comprised 13.2 per cent of Egypt's GDP. E-commerce can play an important role in helping Egypt to raise its exports capacity. The recent devaluation of the Egyptian pound has improved the conditions for exporting over importing.⁴²

Egypt's large informal sector plays an important role in absorbing many of the unemployed who cannot be accommodated by the formal sector. A lack of data makes gauging the size of the informal sector difficult. Overall, there are strong indications that most people are working in the informal sector.⁴³

A large informal sector is a challenge. Informal traders may engage in unfair competition with formal businesses, cause distortions in the economy and compromise long-term growth. Measuring the scope of the country's full economic activities is difficult due to the large number of unrecorded transactions and general lack of information on the sector (see box 3). While informal businesses are typically unresponsive to standard policy measures, i.e. tax incentives or government support programmes, e-commerce can play an effective role in engaging them, tapping their entrepreneurial capacity, helping to organize and structure them, and potentially serving as a conduit for informal MSEs to formalize.

In all these areas, e-commerce can help to stimulate growth and socio-economic benefits, and its impacts

Figure 4. Share of enterprises receiving and placing orders over the Internet, Egypt, 2016/2017, by size of enterprises (Percentage)



Source: Ministry of Communications and Information Technology, Government of Egypt.

Box 2. Survey on e-commerce among MSEs in the handicraft sector

In order to gain a better understanding of the e-commerce barriers, constraints and opportunities faced by MSEs in the handicraft industry in Egypt, a survey was jointly designed and conducted by UNCTAD and MCIT, with the Central Agency for Public Mobilization and Statistics (CAPMAS). Survey implementation in the field and data collection were completed during the first quarter of 2016. The survey constituted Egypt's first official national microenterprise survey. One thousand microenterprises in all of Egypt's 26 governorates were surveyed within the "20 handicraft industries" (a subcategory of "Manufacturing industries" ISIC4). Results were extrapolated to represent the full population of MSEs in handicraft.

Approximately 11 per cent of the MSEs surveyed were found to be using the Internet for work purposes. Some of the enterprises reported that they didn't use the Internet due to lack of skills and experience to use the Internet, while for 12 per cent the Internet didn't meet work requirements. Among the 11 per cent of enterprises that were using the Internet, some two thirds were using social media to promote their products. Only 6.7 per cent of the Internet users had a website of their own. More than half of those with websites (56 per cent) were in the furniture industry, 15 per cent in soap and cleanliness products, 7 per cent in ready-made textiles, and 12 per cent were manufacturing other fabricated products.

Among the entrepreneurs who used the Internet for work, several reasons were mentioned for not having a website, including that it was not suitable for their work (65 per cent) or that the enterprise lacked the skills to manage and maintain a website (40 per cent). Only 2 per cent of the enterprises using the Internet were making use of online marketplaces such as Jumia or Souq. The ones that did use the marketplaces to upload photos and catalogues about their products. Enterprises using an e-commerce marketplace were primarily in clothing/apparel and furniture.

With regard to e-commerce transactions, only a small fraction (3 per cent) of the MSEs surveyed used the Internet to make online purchases. A slightly higher share (4.7 per cent) was receiving orders via the Internet. Furniture producers accounted for 40 per cent of those with online sales. Manufacturers of apparel were the second most common industry (28 per cent), followed by makers of fabricated metal (17 per cent). Payment methods largely remained traditional, though there was some limited use of electronic payments. Nine out of 10 enterprises which made online sales used cash on delivery, followed by payment via mobile (9.2 per cent), bank transfer (6.5 per cent) and credit card (3.5 per cent).

Among the main e-commerce challenges faced by MSEs, 64 per cent stated that they did not believe their products were suited for Internet sales. An equally high share (63 per cent) expressed a preference for face-to-face interactions with their clients. Only 25 per cent reported that they did not have the skills to use and maintain the technology needed for e-commerce.

Source: UNCTAD and MCIT.

Box 3. Focus groups on ICT use among entrepreneurs in Aswaan and Sohag

To obtain more information on MSEs and the informal sector, UNCTAD, in cooperation with MCIT conducted more than 20 focus groups of some 100 entrepreneurs in the handicraft sector in the cities of Aswaan, Sohag, Cairo and Alexandria. Participants were primarily women entrepreneurs in the informal sector.

In Sohag, entrepreneurs specialized in silk, crochet and tally. In Aswaan, entrepreneurs interviewed were primarily Nubian, an ancient tribe that has been practicing handicraft in Egypt for centuries. In both cities, all participants used mobile phones. The majority had a basic mobile phone, rather than a smartphone. Internet users among the entrepreneurs used Facebook to market their products, but none of them had a website. Many Nubian entrepreneurs communicated with their customers and received orders through mobile phone messaging. Some took photos of their products and sent them to their customers using WhatsApp. They sometimes received photos from customers showing model products the customer wanted them to produce. Among the informal entrepreneurs in the two cities, few were familiar with e-commerce and online shopping. None of them had ever bought or sold their products through an online website. No one was familiar with e-marketplaces such as Jumia or Souq. They called on the Government to hold exhibitions regularly in all governorates and to build an e-marketplace to market their local specialty handicrafts.

Source: UNCTAD and MCIT.

can be cross-cutting across sectors and industries, as well as in the informal sector. Effectively harnessing this capacity of e-commerce will require leveraging Egypt's strengths and tackling barriers to e-commerce growth.

2. Leveraging Egypt's key strengths

Egypt has forged ahead in building its technology sector. It aims to become a "smart" country, where all services and utilities are automated and where the

forthcoming era of IoT will bring e-commerce and the digital economy to a new level.

While much remains to be done, the Government's efforts to transition the Egyptian population into the information society and the digital age have borne fruit in several ways. ICT market deregulation, coupled with large-scale measures to introduce ICT and the Internet, has improved affordability of smartphones, tablets, personal computers and telecommunications services, and boosted the numbers of Egyptians with online aptitude. Mobile penetration in Egypt stands at 110 per cent and 37.8 per cent of Egyptians use the Internet, including in rural areas. Telecom Egypt's current roll-out of 4G will significantly improve broadband services. These efforts, as well as the enactment of important digital laws (such as the e-signature law in 2004 and the consumer protection law in 2006) have paved the ground for more Egyptians to engage in e-commerce, for growing the online consumer market and for fostering ICTs and e-commerce among businesses.

a. ICT infrastructure and telecom services

Egypt has a good ICT infrastructure and, with its 4G roll-out, is currently replacing all copper infrastructure with optical fibre in its national backbone across the country. Continuous improvement and investment in the infrastructure needs to take place, however, in the different building blocks – such as software, hardware and networks – given the regular increase in usage of the Internet, technology tools and applications in Egypt, as well as the expected growing increase of advanced ICT across different sectors. In addition, as Egypt moves forward in introducing and deploying innovative and emerging technologies, applications and platforms – including cloud computing, IoT, 3D printing, big data and artificial intelligence – further investments in state-of-the-art ICT needs to happen.

Egypt had a good infrastructure of data centres (both public and private) across the country, including facilities and infrastructure, and is well positioned to grow its cloud computing industry. However, despite access to cloud services in the market, takeup of cloud computing among SMEs and universal diffusion among businesses have been weak, due primarily to barriers relating to trust, culture, lack of information, etc. Continuous investment in ensuring security in Egypt's cloud infrastructure is necessary. The current strategic directions by the Government for the formulation of a cloud computing strategy is invaluable. Its efforts in

looking at different effective and sustainable financial business models could help maximize the added value from implementing an adapted cloud computing strategy to local market conditions.⁴⁴ In terms of electricity supply, which is an important support sector for ICTs, Egypt benefits from an energy production surplus, estimated at 8,000 MW.⁴⁵ Ensuring electricity prices are affordable for consumers and businesses remains important, though.

b. ITES and BPO sector

Egypt has gained recognition as one of the top global destinations for contact centre and BPO services, offering low-cost, quality services. The country is an important player in IT exports, expected to reach \$1.87 billion in 2017, with a mature software development and systems integration sector. This is supported by state-of-the-art technology parks and a large young talent pool of skilled, university-educated workers who are multilingual and well trained in ICT and business skills. There is also a large number of high-quality Egyptian engineers, software development specialists and other IT specialists.

c. Tech entrepreneurship and industrial innovation

Following years of preference for public sector employment among youths and changing views after the revolution and counter-revolutions of 2011 and 2013, youth entrepreneurship is expanding. Egypt possesses a growing entrepreneurship environment with a fledgling "Silicon Valley" start-up scene in the Greek Campus in central Cairo, the TIEC in Smart Village (see box 4), a number of other innovation and incubation spaces, i.e. FlatLab6, as well as a growing venture capitalist community, contributing to making Cairo a dynamic and one of the fastest-growing tech hubs for SMEs and tech start-ups⁴⁶ in the world (see table 6). Egypt's "pool of talented developers, techies and aspiring entrepreneurs who are hungry for work" in these hubs has been cited as one of the best reasons for doing business in Egypt.⁴⁷

Egypt's local manufacturing industry for electronics and home appliances is also growing. Local production and services industries flourish in sectors that could potentially benefit from the e-commerce marketing channel (such as textiles, agro and food processing, and tourism). The TIEC further helps promote innovation and entrepreneurship across various sectors (see box 4).

Box 4. Egypt's Technology Innovation and Entrepreneurship Center

The Technology Innovation and Entrepreneurship Center (TIEC) aims to drive innovation and entrepreneurship in ICT for the benefit of the national economy. The centre was launched at Smart Village in 2010. The centre's mission is to stimulate an innovation-based economy through strategizing, facilitating and promoting innovation, entrepreneurship and the creation of intellectual property in ICT and its applications. Its main objectives are to act as a catalyst among the Government, private sector and academia, and to mobilize the different components of the ecosystem. It defines, manages and coordinates the various programmes and initiatives derived from the Innovation and Entrepreneurship Strategy jointly with the different stakeholders. It aims to enhance businesses' ability to benefit from commercialization of innovations and intellectual property licensing, as well as strengthening Egypt's global competitiveness in high value-added innovation. TIEC hosts innovation programmes, competitions and ICT innovation awards. This includes the Electronic Design Automation Support Program, Start IT, Mobile Applications Launchpad, Co-working Spaces, IbTIEcar and the Entrepreneurship Accelerator Program.

Table 6. Tech entrepreneurship ecosystem in Egypt

Tech parks, real estate parks and co-working spaces	Greek Campus, District Co-working Spaces, Innoventures, Qafeer Labs, American University in Cairo
Incubators and accelerators	Egypt Innovate, Technology Innovation and Entrepreneurship Center (TIEC), Venture Lab, Flat6Labs
Tech social entrepreneurship and philanthropy platforms	Madad, Nafham, Kashef Labs, Mubser
Other tech innovation hubs, tech communities and specialized spaces	Fab Lab Egypt, IceCairo
Networking events	RiseUpSummit, Startup Grind, Startup Cup, Startup Adventure, Techne Summit
Angel investors, venture capital and private equity funds	Sawari Ventures, Ideadevelopers, Cairo Angels, Vodaphone Ventures, Endure Capital, Algebra Capital, A15, Alex Angels
Tech ecosystem portals and virtual connectors ⁴⁸	Eventtus (Egyptian start-up, app-based event-organizing platform)

Source: UNCTAD.⁴⁹

d. Multinational base and investment incentives

Egypt has a strong presence of multinational enterprises, including a strong IT ecosystem of leading global IT companies headquartered in Smart Village and other tech parks, as well as in the Suez Zone. Attracting more established, regional and multinational enterprises in the e-commerce and IT sector and related industries will help Egypt grow its e-commerce ecosystem and national economy. Such companies may (a) invest in infrastructure; (b) facilitate technology transfer, create jobs and provide training to local talent; and (c) facilitate the wider and better selection of product offerings and services in the country. While ensuring the growth and sustainability of local business is important, FDI and the entry of established e-commerce players in the Egyptian market can play an important complementary role.

This has been evidenced in the past years with the opening of operations in Egypt by major regional

e-commerce players Souq and Jumia, who have invested heavily in Egyptian logistics hubs, local training, local supplier initiatives and the creation of jobs. Jumia, for example, has partnered with the Egyptian Industries Union to launch a "Made in Egypt" initiative which supports the development of local manufacturers. Through the initiative, the products of local manufacturers are promoted and given visibility on the Jumia e-marketplace at a zero commission rate fee until the end of 2017. The opening of the Google Play app market for Egyptian developers has created opportunities and helped to create a boon for Egypt's young app developers.

Egypt's recently passed Investment Law last June 2017 further aims to strengthen this multinational enterprise base and attract FDI by streamlining business procedures, and will ease the process of investing, incorporating a company and opening facilities in Egypt, in particular in the Suez Zone, several tech parks in progress, and projects in underdeveloped regions (see box 5).

e. Payments ecosystem

Egypt's national payment system and its effective regulation and oversight by the Central Bank are additional strengths, providing a strong foundation on which e-payment mechanisms for e-commerce can be developed and function safely. Regulations passed by the Central Bank of Egypt have opened the door for growth in mobile payments important for the expansion of e-commerce (see box 5). While banking is primarily urban, due to the concentration of the population along the Nile, the payments infrastructure, for example ATM density in inhabited areas, is reasonably well developed in Egypt.

f. Logistics and trade facilitation

In terms of logistics, Egypt sits at the crossroads of Africa, the Middle East and the Mediterranean region. It has eight major ports, including the Suez Canal, several airports and three cross-country borders, giving it a diversity of channels as a logistical hub for cross-border trade. In terms of domestic logistics, as Egypt's entire population resides on only approximately 5 per cent of the country's entire land mass (due to 95 per cent of the land being uninhabitable desert), the population is largely concentrated on an approximately 25–30 km stretch of fertile lands on either side of the Nile flowing up and down the length of the country. For the purposes of package delivery, most of the population is within distance of logistical reach, though dense traffic is challenging and road access is less developed in poorer governorates. As dense traffic tends to correlate with higher rates of online shopping, the burden of navigating road congestion falls on the third-

party logistics provider. Egypt benefits from established international and local third-party logistics providers and a well-functioning logistics sector for Cairo and its peri-urban areas, sectoral regulatory measures aimed at reducing informality, and a postal sector with local offices in nearly every part of the country. With 4,020 permanent post offices across all governorates (2015), Egypt Post is well positioned to support e-commerce, in particular for socially inclusive growth.

3. Tackling challenges

Overcoming remaining challenges is crucial for seizing the potential of e-commerce in Egypt. The following are the key barriers identified through a diagnostic assessment of eight key strategic pillar areas (see figure 1).

a. ICT infrastructure and telecom services

A primary challenge of Egypt's telecommunications sector is to improve the supply of high-speed broadband services and to alleviate overloaded networks that affect the quality of service (QoS). In this context, additional spectrum will need to be allocated as users take up more services. In national transmission, fixed and mobile broadband transmission capacity overall will need to rise at double-digit rates for the foreseeable future to keep up with increases in demand. With regard to the provision of fibre to the home and office, base transceiver stations appear to be a bottleneck to improved access to fixed broadband connectivity. Egypt could benefit from the development and implementation of an innovative,

Box 5. Recent regulations and laws beneficial to e-commerce

In the past few months, the Government of Egypt has introduced a number of new regulations and laws which significantly strengthen the national business climate for the growth of the e-commerce sector, as well as the economy as a whole. This includes the issuance by the Central Bank of Egypt (CBE) in November 2016 of a new package of mobile payment regulations removing key bottlenecks, which marks an important move toward substantially increasing mobile payment services in Egypt, including in micro-financing. A National Payments Council to promote digital payments was established in 2017. In January 2016, Egypt also approved its first bankruptcy law which, by removing the risk of facing imprisonment in case of a failed bankrupted business, can help encourage youth entrepreneurs, as well as investors.

In addition, in June 2017, Egypt introduced a new investment law aimed at attracting FDI through a series of tax and other incentives, and new procedures, substantially easing the "red tape" involved in incorporating a company. This includes the establishment of an investors' service centre "one-stop shop" for all required licenses and an "electronic incorporation" platform system guaranteeing rapid respond to all investor applications, as well as a "golden license" measure enabling the Prime Minister to issue a single approval covering all necessary permits, licenses, contracting, etc., for strategic and national projects considered key to Egypt's development. To foster investment in technology and IT, the law also includes for the first time a framework for the establishment of "technological zones", where technological objectives can be pursued, including manufacturing and developing electronics, programming and technological education.

Source: UNCTAD.

systematic approach to the strategic management of its QoS by the National Telecommunication Regulatory Authority (NTRA) and by making use of progressive diagnostic techniques to identify key bottlenecks.

A lack of competition and the complexity of mobile operators having to use Telecom Egypt's infrastructure also result in inefficiencies, higher prices and lower QoS. In addition, measures are needed to encourage paid access to broadband connections in order to discourage illegal line sharing, which compromises QoS.

With regard to international telecommunications, Egypt has access to a combined capacity of undersea cables exceeding 2 terabits per second and can generate surplus capacity of international telecommunications that may be tapped for different usage. However, only Telecom Egypt is allowed to provide access to these cables. Effective competition in this area would help to reduce prices for international capacity and calls, strengthen QoS and reduce the cost of the Internet for e-commerce.

Access in Egypt's rural areas also needs to be strengthened. In Kenya, a Unified Licensing Framework approach, which provides local licenses at a lower cost for operators that wish to serve only a local area and enables local telecommunications operators to enter the market, substantially reduced the access gap in telecommunications services between large urban areas and smaller towns and rural areas.

Overcoming challenges in ICT capacity, cost and QoS will help Egypt's IT sector to support the growth of e-commerce and increasing demand for e-commerce and IT-related applications. There is increasing demand in e-commerce-related areas such as digital content and content management, mobility solutions (in particular for entrepreneurs), IoT, small business and boutique shops going online, security solutions, big data analytics and 3D printing. Further strengthening Egypt's software, hardware, systems integration and hosting industries are also important in this context.

b. Logistics and trade facilitation

Egypt has long served as an important logistics hub. The Suez Canal is the fastest shipping route between Europe and Asia, and Egypt is in the process of developing several logistics hubs and industrial zones in the Suez Canal area. This includes integrated ports and industrial zones in Sokhna and Port Said, and a Technology Valley and Suez Administrative Center in Quantara.⁵⁰ A logistics centre is planned in South Egypt in the "Golden Triangle" Qena–Safaga–AlQusair

areas. Through cooperation under the Common Market for Eastern and Southern Africa, work has been underway to implement the Egypt–Africa Highway, a road network connecting Egypt to South Africa – as well as all countries en route including Botswana, Zimbabwe, Zambia, the United Republic of Tanzania, Kenya, Ethiopia and Sudan – and creating a new African corridor to enable African countries' easier access to European markets through Egyptian seaports.

Egypt is building a shipping lane along the Nile River for small- and medium-size commercial vessels, which will connect Lake Victoria to the Mediterranean Sea and aims to boost bilateral trade among eight countries: Egypt, the United Republic of Tanzania, Kenya, Uganda, Rwanda, Burundi, the Democratic Republic of Congo and South Sudan. Egypt also serves as an important hub for most international air cargo shippers such as DHL and Aramex. The combined logistics services by air, road and ship position Egypt well for becoming a regional shipping and distribution logistics hub for e-commerce.

Egypt can further improve its competitiveness by strengthening its air, sea, river, road and railroad infrastructure. Its service delivery in freight forwarding, transportation, warehousing and other segments of the logistics supply chain can be further strengthened. Recovery of Egypt Air and its transformation into a world class airline service, in combination with the development of the distribution networks through the Suez Canal, the Nile and land routes, will help establish Egypt's position as the regional logistics hub and gateway to Africa and Europe. Close coordination of development of the logistics sector with business operations and activity in the industrial zones and free trade zones will also be crucial.

E-commerce requires fast, reliable delivery with effective tracking systems. Egypt Post is modernizing the National Postal Authority with the building of an electronic network connecting its 4,020 branches (2015) throughout Egypt's 28 provinces (see table 7). Complications relating to handling cash on delivery and concerns over reliability of services are challenges that the postal sector should contend with to become a preferred logistics provider in cooperation with the private sector in e-commerce. In 2017, Egypt Post started active cooperation with major e-commerce players in the private sector.

While the logistics sector flourishes in Cairo and its peri-urban areas, standard service can be enhanced in

Table 7. E-commerce and postal services

Year 2015	Total number of postal staff	Percentage of population working for postal service	Total number of permanent post offices	Number of permanent post offices connected to an electronic network
North Africa				
Egypt*	50 000	0.06	4 020	4 020
Morocco	7 871	0.02	1 773	1 148
Middle East				
Jordan	1 071	0.01	352	125
Lebanon	966	0.02	122	122
Oman	521	0.01	166	
Qatar	793	0.04	28	
Saudi Arabia			659	
United Arab Emirates**	2 402		314	122
BRICS				
Brazil	118 220	0.06	12 331	7 471
China	938 494	0.07	53 646	36 585
Russian Federation (the)	347 786	0.24	41 301	35 607
South Africa	15 203		2 368	1 570
Other				
Kenya	3 550	0.01	623	476
Nigeria	10 344	0.01	1 903	320
Thailand	23 703	0.04	4 682	1 419
Turkey	26 849	0.03	4 516	4 425
United States	621 837	0.19	30 529	30 529

Source: UPU.

* Egypt Post. ** 2014.

rural and remote areas and in governorate city centres outside of Cairo. Egypt's main e-commerce retailers, such as Jumia and Souq, manage their logistics primarily by working with regional and international logistics companies such as Aramex, DHL, FedEx, smaller logistics service providers and, more recently, with Egypt Post. While these e-retailers can deliver e-commerce products to remote areas, this comes at delivery costs that are prohibitively high for rural residents. Bringing the logistics costs down will be important for e-commerce to expand in rural areas.

While many logistics services are geared toward larger e-commerce companies, small businesses face higher logistics, shipping, leasing and storage costs, even in special free trade or industrial zones. For SMEs, shipping goods purchased online to consumers overseas, the high costs of shipping internationally act as a deterrence to tapping into the international e-commerce market. Warehousing facilities are typically not adapted for small businesses. There is

therefore a need to develop commercial real estate leasing arrangements and logistics services and products geared for MSEs (see box 6).

Egypt is in the process of installing a single window system, which will expedite customs procedures. An UNCTAD Asycuda Customs Survey conducted for the strategy development indicated that the lack of an IT system to issue and manage licenses, permits and/or certificates related to foreign trade (e.g. importers/exporters registration certificates, certificates of origin, warehouse licenses, etc.) is a bottleneck to trade in Egypt. Currently, traders are submitting their applications on paper forms. Ambiguity about returns policies also causes bottlenecks at customs. Slow and burdensome clearance procedures at customs remain a logistical barrier to cross-border e-commerce.

c. Legal and regulatory environment

While Egypt has key digital laws in place, such as the e-signature law and the consumer protection law,

Box 6. Commercial real estate for micro and small e-commerce businesses

A new mixed-use storage and office space business model for real estate designed for small e-commerce businesses was launched in 2017 in the state of Virginia in the United States. The E-commerce Center of Hampton offers an office park featuring storefronts and smaller commercial spaces for tenants who sell items online and need small-scale storage for inventory. The centre features both allocated warehouse storage space combined with leased office space for business tenants. The ground floor features a shipping delivery store for shipping needs, an e-commerce support business that specializes in helping entrepreneurs sell items online and services covering all aspects of running an online business including picking up items, cataloguing them with photos online, selling them and shipping them.

Source: Daily Press of Hampton.⁵¹

there is scope for further improvement of the legal and regulatory framework. Egypt may wish to update and amend the e-signature law to sharpen it and accommodate new developments in the electronic transactions sector. The issuance of an e-government law, including an e-signature mechanism between entities, is important for the development of e-services, and impacts areas such as taxation, licensing and e-procurement.

Egypt should also deal with the issue of intermediary liability of Internet service provider intermediaries as a way to facilitate e-commerce. In this context, it is important to create a balance between (a) the rights holders' interest to protect their intellectual property; (b) the platform's and vendors' interests to conduct legitimate commerce and to run their businesses without being unduly burdened, including by alleviating the procedural burdens involved for them to comply with protection of intellectual property rights and enabling businesses to publish as much content as possible (i.e. e-commerce products and information), while incurring as little liability as possible; and (c) consumers' interest to have access to as much content for as little cost as possible (i.e. e-commerce products and information), and in defence of societal free speech and communications. Further information on this issue can be found among reports cited in References.

Ensuring protection of consumers for online purchases is also important and should be incorporated in the consumer protection law. The Government has drafted an article in the consumer protection law concerning long-distance selling, which will provide consumer protections for e-commerce and online shopping. It is currently in Parliament.

Online dispute resolution While Egypt's E-signature Law, adequate data protection mechanisms are needed. Adequate data protection is important to raising Egypt's attractiveness as a location for ITES services as well as improving its ability to attract FDI into the BPO/KPO sector. Strong cybersecurity measures are also important,

for e-commerce and supporting service-provider companies. There is need for greater understanding of the legal and regulatory adaptations that would help Egypt's industries to grow through new technologies such as IoT, 3D printing and autonomous vehicles, including with regard to intellectual property.

d. E-payments, financial services and financing

While Egypt has a sound regulatory environment for electronic payments, factors such as a cultural preference for cash and resistance to change in traditional ways of doing business work against the uptake of e-payments and impede e-commerce use. Although Egypt boasts the largest number of credit card holders in the region, Egyptian consumers are often reluctant to use the cards. Debit cards are frequently not activated for e-commerce purchases. There is also need in Egypt for stronger merchant acceptance, in particular among small businesses, as Egyptian businesses are often reluctant to accept electronic payments due to high transaction fees and concerns of fraud. The findings of an UNCTAD/World Bank survey on payments conducted in 2016 for the strategy development confirmed the importance of fostering the adoption of payment security technologies and industry best practices in Egypt relating to data security across banks, e-commerce sites, payment gateways, payment system operators and payment service providers (see box 7). In addition, incentive systems and targeted awareness campaigns are needed to promote electronic payments (see box 8).

While Egypt's E-signature Law was passed in 2004, the adoption of e-signature in Egypt is limited despite its legality by law. There are no financial or payment products in the Egyptian market making use of e-signature. Businesses in the banking and financial services sector considering the use of e-signature appear to be largely advised against this by Egyptian lawyers and legal professionals.⁵² While a draft banking

law aimed at supporting e-signature is currently being considered, and initiation by a financial institution “first mover” may help to unlock the bottleneck, an open dialogue among key players – including banks, payment companies, financial service providers, lawyers advising the banking and financial sector, etc. – is needed to ascertain the crux of underlying barriers and reluctances constraining the use of e-signature, and to activate its use in the financial services and payment sector. The bank and payments sector can assume a lead role in helping to operationalize e-signature usage. For instance, the exchange of files containing payment instructions from business clients could be digitally signed. Receipts for government services, stock transfer instructions and forms which are sent by an institutional client to an individual or a business are other documents which could serve as good targets for transition to e-signature.

In recent years, a number of mobile payment solutions have been offered by a few banks, though the uptake has been below expectations. A barrier to e-payments for e-commerce is the large number of unbanked in the population. This is especially the case in rural areas.

With recently passed regulations on mobile payments, key bottlenecks to uptake may have been lifted, raising the prospect of accelerated expansion in rural areas and more effective leveraging of Egypt Post’s financial services, with more than 24 million postal bank accounts and the agent system for mobile payments (see box 5). In addition to stepping up issuance of existing electronic payment instruments, Egypt can benefit from the introduction of additional forms of electronic payment methods which can help to foster financial inclusion (see box 9). Social protection payments, in particular bread subsidy and fuel payment cards, as well as other large volume, recurring government payments, can be leveraged to foster electronic payments and e-commerce. The fintech industry is also playing an active role in expanding Egypt’s e-payment services market and in fostering financial inclusion for e-commerce (see box 10).

In the financial services sector, increasing e-commerce-related digitalization of insurance, home mortgage loan and real estate industries can support demand generation and B2B-catalysed process efficiencies in

Box 7. UNCTAD/World Bank E-commerce Survey on Payments: Some findings

The Survey, conducted in the third and fourth quarter of 2016 among four main banks in Egypt, found that banking in Egypt is still predominantly limited to urban locations. Some 78 per cent of bank branches are located in cities, even though only 43 per cent of the population lives in urban areas. The banks issue debit cards to most of their customers. Most people use their cards for ATM withdrawal only, however. E-banking services offered by the banks are relatively limited. Even with mobile technologies, most banks appear focused on mobile wallets but have limited m-banking services, which could help play a role in acclimating Egyptians to online platforms and in building trust in their use. Only half of the banks provide 3-D Secure services. Even in these cases, less than 1 per cent of debit and pre-paid cards are 3-D Secure-registered. There is a need for secure e-payment services. Only half of the banks had conducted any campaigns aimed at popularizing e-commerce purchases among their customers. Just one of the four banks participating in the survey engaged in credit card rewards and price rebates initiatives.

Source: UNCTAD and World Bank.

Box 8. Lottery incentives to promote electronic payments

The use of a national lottery is one type of initiative which has been used successfully by countries to strengthen the attractiveness of electronic payments. A lottery system introduced in the Republic of Korea in 2000 was initially implemented for shops that accepted payment cards. In 2001, the measure was expanded to customers of the shops for transactions with payment cards. The target was to promote the use of payment cards even among low-income consumers. Implementing a series of such measures led to an increase in the share of card transactions in private consumption from 15 per cent in 1999 to more than 65 per cent in 2010. The lottery scheme was eventually discontinued when the penetration of credit card use was considered sufficiently high.

In December 2016, the Government of India launched two digital lottery schemes – Lucky Grahak Yojana for consumers and Digi Dhan Vyapar Yojana for merchants – aimed at incentivizing digital payments. The schemes give cash prizes to consumers and merchants who use digital modes of payments. In June 2017, a consumer purchase of Rs 1,590 was the winning lottery ticket which won a consumer Rs 10 million (or approximately US\$ 150,000⁺⁵³) under the Government’s promotional scheme to popularize digital payments.

Source: UNCTAD and World Bank.⁵⁴

Box 9. Bank account-based e-commerce payments

iDeal, which was launched in the Netherlands in 2005, is a standardized payment method for making secure online payments directly between bank accounts, and enables consumers to pay online through their own bank. It is the most popular online payment method in the Netherlands, requiring only a Dutch bank account. Similarly, in 2016, the UPI payment system was launched by the National Payments Corporation of India. Regulated by the Reserve Bank of India, UPI facilitates the instant fund transfer between two bank accounts on the mobile platform and can be seamlessly interfaced with e-commerce websites. Both iDeal and UPI have become accepted payment methods by many e-commerce companies.

Source: UNCTAD and World Bank.

Box 10. Egypt's fintech market

Fintech (or financial technology) refers to businesses and a growing financial services sector emerging from the confluence of technology and finance – where technology is increasingly integrated into all stages of a financial service and how it is delivered. Today, fintech is powered by innovative technological developments such as ICT and Internet-mediated platform-based services, big data, artificial intelligence, blockchain/distributed ledgers, application programming interfaces and digital IDs. Opportunities exist in Egypt's fintech market. Growth in Egypt's fintech market is playing an important role in helping to transition Egypt from cash to electronic payments at all levels of Egypt's financial services sector – ranging from high-level, centrally coordinated national banking systems to the grassroots level, where fintechs target the unbanked.

The Egyptian Banking Company (EBC) – originally one of Egypt's oldest fintechs and established in 1995 under the sponsorship of the Central Bank of Egypt – was founded with the vision of spreading the electronic payments culture in Egypt and the objective to provide Egyptian banks with the infrastructure required for electronic payments and clearing systems. The company today has become a major infrastructure player and is responsible for Egypt's national switch as well as serving as an international gateway for credit card payments. Founded in 2009, Fawry was the Egyptian fintech which spearheaded electronic bill payments in Egypt. Today, Fawry is the market leader in electronic bill payments in Egypt and has become a consumer household name, offering more than 60 types of bill payment services at 50,000 service points, ranging from corner kiosks to ATMs. Fawry's acquiral in 2015 constitutes one of the most successful exits of a fintech. On the business and enterprise end, international fintech DoPay, which launched in Egypt in 2015, operates a cloud-based payroll service that enables businesses to transition from a cash/check manual-based payroll system to an electronic payroll through the use of an app, website and measures bringing unbanked employees into the formal banking system. Since entering Egypt, DoPay has transitioned more than 700 Egyptian businesses, both large and small, employing in total more than 30,000 employees (largely unbanked), to electronic payroll services.

Source: UNCTAD and World Bank.

complement with current government measures to build mortgage finance for low- and middle-income borrowers, create conditions for credit growth, and upgrade the framework for insurance. E-commerce in Egypt's online stock market trading interrelates with efforts to modernize and enhance Egypt's capital and securities markets. Business and SME financing remains a key barrier to e-commerce entrepreneurship. Central Bank regulations establishing bank quotas for SME loan allocation and the new microfinance law aim to support access to finance for MSMEs, though more measures are needed. While Egypt has a growing market of venture capitalists, challenges exist in lack of funding for start-ups and high-growth SMEs. A gap exists, in particular, in investors willing to fund businesses halfway between seed-funding

(approximately US\$ 100,000–200,000) and the Series A investors (more than US\$ 1 million).

e. Taxation

Egypt currently does not have a specific policy or treatment of taxation on e-commerce. With rapid developments in the global market in e-commerce and Egypt's growing e-commerce market, the Government should study and adopt such a policy and put in place a simplified online mechanism for VAT collection related to e-commerce (see boxes 11 and 12).

Tax incentives can help support the growth of e-commerce and e-commerce and IT-related industries. For example, a Software Technology Parks of India scheme, introduced in 1991 to encourage software exports, helped make India one

of the world's leading hubs for software and business process outsourcing. Units set up in these parks were eligible for a 10-year tax holiday and other incentives. The role of the Parks in the growth of the IT industry is reported to have been tremendous, especially in the case of start-up SMEs. To encourage the growth and use of e-commerce, the Malaysian Government has since 2002 allowed eligible taxpayers (individuals, companies and enterprises) to deduct their costs incurred in developing an e-commerce-enabled website through a special tax deduction. The website must be hosted by a server in Malaysia, and it must conform to specific criteria in order to obtain the tax deduction. For example, it must have a shopcart function, security encryption capabilities, etc.⁵⁵

f. E-commerce platforms

Egypt has a handful of e-marketplaces and e-commerce and related platforms. These include

online supermarket Knockmart, job sites Wuzzuf (C2C) and OLX (C2C), education e-marketplace Nafham, price comparison site Yaoota, as well as regional e-commerce multi-category e-marketplaces Jumia and Souq (both primarily B2C). Continued growth of these e-marketplaces, e-retailers and related platforms is important.

In addition, the domestic market is large enough for more diversity in terms of e-retailers and the types of goods and services they offer. Many of Egypt's current offline national brands and retailers have the opportunity to establish an online presence. Egypt has untapped potential for national B2B and C2B platforms, in particular in the Arabic language. Chapter 2, section B, "Egypt's e-commerce market", contains more detailed information.

Box 11. Destination principle in taxation of international B2C e-commerce: The OECD international VAT/ Goods and Services tax guidelines

The OECD International VAT/Goods and Services Tax (GST) Guidelines provide internationally agreed standards and recommended approaches for addressing the key challenge of collecting the VAT on online sales. These Guidelines focus primarily on trade in services and intangibles, including online sales of digital products (such as apps, film and music streaming, online gambling and online dating). This is because collecting VAT on international trade in services and intangibles is more difficult than for goods trade, as the nature of services and intangibles is such that they cannot be subject to border controls in the same way as goods.

The International VAT/GST Guidelines provide that the jurisdiction in which the customer has its usual residence has the right to collect VAT on supplies of services and intangibles, including on online sales by foreign suppliers. These Guidelines recommend that market countries require foreign online suppliers to register and account for VAT in the jurisdiction where the online purchasers are located. They recommend that jurisdictions establish a simplified registration and compliance regime to facilitate compliance for non-resident suppliers, via a web portal, and it provides the main design features of such a collection regime. In the European Union, the Mini One-Stop-Shop online system was introduced in 2015. The OECD Guidelines have already been implemented in a range of countries, such as the 28 European Union member states, South Africa, India and the Russian Federation.

Source: OECD.

Box 12. Tax treatment of online purchases in the United States

In the United States, online sellers are required to charge customers sales tax on the basis of specific criteria relating to "physical presence". If a seller runs a business with a physical presence in a state, such as a store, office or warehouse, they must collect the state and local sales tax required by the jurisdiction where their business is located. On the other hand, if a seller does not have a presence in a particular state, they are not required to collect sales taxes on an online purchase from a customer. In legal terms, this physical presence is known as a "nexus". Although each state defines nexus somewhat differently, there is a consensus that if a seller has a store or an office of some sort, a nexus exists. This consensus is based on a 1992 Supreme Court ruling that states cannot require mail-order businesses, and by extension, online retailers to collect sales tax unless they have a physical presence in the state.⁵⁶ In the recent period, however, there have been changes, as increasingly e-commerce companies are paying sales tax as well.

Source: UNCTAD.

g. Skills development

Egypt graduates a high number of skilled university students and talent each year. More skills training and e-commerce-specific curriculum in higher education will be important to further boost skills and e-commerce engagement. This includes training and apprenticeships in vocational areas and curriculum relevant to e-commerce, such as online store management, digital marketing, social media marketing, shipping and fulfilment services, payment and related financial services and data analytics.

Furthermore, e-commerce skills development, education and knowledge are needed among working professionals across industries in the private and public sectors, such as the judiciary, the banking system and the Government to foster understanding on e-commerce. There is a particular need for strong middle management skills for the e-commerce sector in Egypt.

Skills development is also critical to raising Egypt's global competitiveness. Low labour costs in Egypt must not be counteracted by low productivity. Developing a strong cadre of home-grown middle management and systematically setting high labour quality standards could go far in further helping to position Egypt more strongly in terms of the attractiveness of its talent pool.

Businesses are in need of hands-on training and business development support in e-commerce applications in order to upgrade their operations, innovate and enhance productive capacity. The Information Technology Institute (ITI), a national institute that offers medium-to-short IT professional courses, plays a strong role in e-commerce development in Egypt by providing training tracks on different e-commerce-related application areas such as Sharepoint, CRM Applications, Software Architecture, Web and Mobile Applications Development, etc. CIT, the Industrial Modernization Center and the Eitesal Organization also currently provide training on e-commerce for enterprises of different sizes and could play a more important role.

The global growth of technologies such as IoT and Artificial Intelligence, including chatbot and automated messaging, and other automation technologies, will impact the global market of call centres, including Egypt's. Artificial Intelligence and IoT may render obsolete some of the roles in traditional customer service, in particular relating to simple customer service query response. In order to maintain its global

competitiveness, Egypt will need to re-engineer its call centre industry and transition its workforce to new skills acquirals. Skills development will be needed to make Egypt's call centre customer service agents more specialized, versatile and trained to provide more complex problem-solving which cannot be handled by a machine. At the same time, the emergence of new technologies and IT-facilitated automation – including 5G, Internet of Things (IoT), Augmented Reality, Virtual Reality, Artificial Intelligence, as well as cloud and apps – raises the need for skilled specialists such as programmers and developers, engineers, information security, and IT network and cloud professionals – a global market offering further opportunities for Egypt's ITES and BPO sector.

Virtual reality is increasingly used for training and skills development, for example, in the logistics and retail sectors. UPS, the largest package delivery company globally, has developed and will roll out to employees a new Virtual Reality training programme for package delivery trainees. The training makes use of Virtual Reality to simulate some of the uncertainties and challenges of delivering packages on city streets. Trainees will interact with the content using voice commands to identify obstacles while wearing Oculus headsets.⁵⁷ Similarly, Walmart is rolling out Virtual Reality training, enabling employees to experience real-world scenarios through the use of the headset, strengthening their capacity to deal with situations such as holiday rush crowds or cleaning up a mess in an aisle.⁵⁸ Egypt may wish to explore the development and piloting of a Virtual Reality training programme.

In the tech entrepreneurship ecosystem which supports e-commerce development, in addition to a high level of technical IT skills, there is also a need for finance, business planning, legal, management and marketing skills to bring innovative ideas to fruition and delivery.⁵⁹ As growth in the quality and quantity of Egypt's online content, in particular in Arabic, will attract and expand Egypt's online population into a critical mass with potential spillover into online consumption, growing Egypt's skills base for producing online content and the market of online content developers and professionals can benefit e-commerce.

To further support e-commerce entrepreneurship, measures aimed at creating an entrepreneurial culture in Egypt by embedding entrepreneurial content and knowledge in the curriculum – including elements such as critical thinking, creativity, innovation and discovery – starting at the high school level is important.

Corollary to this, the early cultivation of work values, a productivity mindset, and business and professional etiquette, are also crucial at this stage. These should be complemented at the university level with content, courses and activities that integrate and blend the entrepreneurial knowledge into different academic degrees. Entrepreneurial education should be embedded in both degree and professional development programmes such as marketing, finance, IT, strategy, leadership and more. Entrepreneurship cannot be stand-alone, it must be embedded at the university level across the board in different curriculums and in universities across all governorates. It is strongly suggested that Egyptian universities invest in creating a platform (both online and offline) that can help promising entrepreneurs share their ideas and transform them into products or services. This could be realized through creating an incubator/accelerator environment in every higher education institution in Egypt.

Across the wider population, e-commerce-related skills training is needed to raise the rate of digital literacy. Education e-marketplaces play an important role in supporting education in Egypt (see box 13). There is need for increased digital literacy, in particular in rural areas, to enable more Egyptians to use the Internet, buy online, and use online payment and other ICT-related activities. This is important for expanding rural e-commerce and building the consumer base. One MCIT government initiative to promote digital literacy was the establishment of a network of IT clubs across the country. Strengthening such networks can help foster e-commerce (see box 14).

Effectively matching the skills of skilled youths, many of whom are ICT- and social media-savvy, with greater employment opportunities is essential. Apart from the employment of many youths in contact centres and IT-enabled services, ICT and social media skills available to grow e-commerce can be further tapped.

Box 13. E-marketplaces for education

Online education and education e-marketplaces are emerging as effective ways to support digital literacy and the education system in Egypt. Through Nafham.com, Egyptian families can gain online access to the entire national educational curriculum for several countries of the Arab region. Ninety per cent of the Egyptian curriculum is now online and more than 20,000 videos and 100,000 lessons are offered for free using this service. The service is also accessible by smartphone. Nafham has made possible home tutoring of batches of children by one stay-at-home mom. It is an illustration of the important role that ICTs and massive online open courses are playing in the education of Egyptian children today.

In the United States, Amazon has launched an online education marketplace called Amazon Inspire (now in beta testing). The e-marketplace provides free resources and services for teachers and features tens of thousands of lesson plans, worksheets and other instructional materials for teachers. In addition to enabling teachers and educators to upload and share curriculum resources they have created, it aims to build a thriving community of educators and to enable the e-marketplace to grow its library of digital educational resources from teachers, school districts, open educational resource providers and publishers from across the country for public use. In addition, Amazon has offered a number of benefits to students for the past few years. The Amazon Student Textbook Rentals programme delivers rentable textbooks at a steep discount, as well as provides students a free one-year subscription to Amazon Prime, a membership programme that gives customers access to digital services and products such as video and music streaming, e-books, free shipping and other benefits.

Source: World Bank⁶⁰ and UNCTAD.

Box 14. Egypt's IT clubs and success criteria for sustainability

As part of the development of Egypt's national e-commerce strategy, MCIT in collaboration with the UNCTAD conducted a survey of about 40 IT clubs in Egypt to identify key success factors in order to help ensure their long-term sustainability, and help boost e-commerce within governorates. The results showed that the Government plays a recognizable role in supporting IT clubs, providing support for 77.5 per cent of them. IT clubs are technically well-equipped, as 87.5 per cent of them have websites. This has created considerable consumer demand. Almost all IT clubs said that there is a consumer demand and good business opportunities for the IT club services. Consequently, 72.5 per cent of IT clubs reported that they can easily find users. The IT clubs commit well to their social responsibility, since 80 per cent of them provide a specific mission. In this context, 88 per cent of IT club services target women and 93 per cent target the unemployed. Additionally, virtually all target students and youths aged 15–29. Most importantly, 53 per cent of the IT clubs target the most vulnerable segments, with 48 per cent targeting the disabled and businessman/businesswomen, and 43 per cent targeting farmers.

Source: MCIT and UNCTAD.

h. Awareness-raising

Greater awareness is important to boost e-commerce. As e-commerce is largely in its infancy, improved knowledge of the phenomenon can help to enhance the knowledge of consumers and businesses. Consumers and small enterprises need to learn more about how e-commerce may benefit them. They may be unaware of how to buy on an online marketplace or how online payments work. Filling information gaps and raising awareness in these diverse areas are crucial.

Egypt's Consumer Protection Agency (CPA) can play a key role by helping to educate consumers on their rights relating to e-commerce. Awareness of consumer rights acts as a barrier to the uptake of e-payments. The CPA could launch a national initiative specifically on e-commerce. The problem of lack of awareness of e-commerce is exacerbated in rural areas, which could benefit from e-commerce. Further initiatives are needed to raise awareness and foster rural e-commerce (see box 15).

Many businesses lack awareness of the utility or value of e-commerce or selling online. Small businesses, in particular, would benefit from more awareness of consumer rights and their businesses' obligations to consumers with regard to e-commerce. Measures are needed to prevent misleading online advertising,

in many cases due to lack of awareness of proper advertising guidelines (see boxes 16 and 17). CIT and the Eitesal Organization can provide training on e-commerce for enterprises as well as generally raise awareness about e-commerce. Many other stakeholders – including retailers, e-commerce platform companies, banks, Egypt Post and schools – should contribute to raising awareness and disseminating information on e-commerce and related e-payments and services.

i. E-procurement

When administered in a way that encourages open tendering and competition, e-procurement can provide incentives for SMEs to use ICTs and e-commerce. It can also serve as a way to introduce government employees to an in-house type of e-commerce transactions. By requiring government employees to place e-procurement orders for low-value goods for in-house use – for example, items and services such as office supplies, janitorial and facilities supplies, and other lower-cost items – governments can help staff develop e-commerce skills that can be transferred to the private domain.

By law, all entities in the Government of Egypt are required to publish requests for proposals on the government procurement portal in addition to publishing

Box 15. Case study on the Rural Taobao Initiative

There are approximately 600 million rural residents in China, accounting for 44 per cent of the population. In 2014, Alibaba, the world's largest e-commerce company, launched its Rural Taobao initiative to foster rural e-commerce in China. Its approach is conceptualized as an ecological ecosystem made of a multi-layered foundation structure supported by three types of nets: (a) the Skynet, signifying cooperation with local government; (b) the Earthnet, signifying building infrastructure; and (c) the Humannet, signifying building up human capacity.

In 2014, the company announced plans to invest 10 billion yuan (US\$ 1.6 billion) in 100,000 rural Taobao service centres in China over five years. Though it is still early to tell, and monetization is challenging, there are indications that these rural investments are paying off. E-commerce orders placed by rural consumers or placed with rural sellers resulted in the delivery of more than 7 billion packages in 2015, up from 4.5 billion the previous year.

The Rural Taobao business model is based on two main components:

(a) Rural Taobao Service Centres: The construction of service centres across rural villages. The company provides Internet access and service in helping rural consumers, businesses and farmers to search for products online, place orders or sell products on its online marketplaces. Some of the centres are being developed into rural SME incubators;

(b) The Rural Taobao Partners Initiative: This is a comprehensive youth training programme encouraging aspiring entrepreneurs to return to their hometowns to set up Rural Taobao Service Centres. The entrepreneurs run the service centres as their own businesses, receive initial support and earn commissions from sales.

Alibaba's e-marketplace cun.taobao.com provides dedicated service to farmers via service centres in counties and villages. Through this service, farmers can make orders online and be served offline by Rural Taobao's service centres. The e-marketplace attracts a lot of merchants and brands that provide their products to farmers at discounted prices based on the local lifestyle and working conditions. cun.taobao.com started in November 2014, and has been upgraded with numerous new functions. In July 2016, Rural Taobao launched a local lifestyle channel by cun.taobao.com designed for rural farmers.

Source: Alibaba presentation, UNCTAD 2016 Meeting on E-commerce Strategies for Rural Development;⁶¹ Advisory Note Mr. Lijun Sun

them offline. While the law does not appear to be followed in practice, Egypt accords strong importance to e-government and e-procurement start-ups to stand out recently among government priorities. Many governments implementing e-procurement today have experienced significant benefits (see box 18). Since the devaluation of the Egyptian pound in November 2016, the cost of imports has soared in Egypt. Subsequently, today e-procurement opportunities have substantially increased, as many multinational enterprises are seeking to localize raw materials.⁶²

4. Opportunities

a. Youth talent pool, cost efficiencies and training support environment

Egypt enjoys a pool of talented youths who are highly educated, multilingually skilled and trainable. There is an abundant number of graduates from computer science, engineering and other specialized fields. The Information Technology Institute (ITI) provides professional capacity-building programmes every year as well as online training provision for graduates. In addition, there are many training centres throughout

Box 16. Guidelines to reduce misleading online advertising

The OECD 2016 Consumer Protection in E-commerce Guidelines in Section C on Online Disclosures sets out the minimum information that e-commerce businesses should give consumers about the business and products being sold. This includes (a) the legal name of the business and name under which it trades; (b) the business' principal geographic address; (c) an e-mail address; (d) a telephone number or other electronic means of contact; (e) appropriate domain name registration information for websites that are promoting or engaging in commercial transactions with consumers; and (f) any relevant government registration or license information. Product information should include (a) key functionality and interoperability features; (b) key technical or contractual requirements, limitations or conditions that might affect a consumer's ability to acquire, access or use the good or service; (c) safety and health care information; and (d) any age restrictions.⁶³

The United Nations Guidelines for Consumer Protection⁶⁴ recommend that businesses provide complete, accurate and not misleading information regarding the goods and services, terms, conditions, applicable fees and final costs, to enable consumers to take informed decisions.⁶⁵ They highlight that "Member States should work towards enhancing consumer confidence in electronic commerce ... ensuring a level of protection that is not less than that afforded in other forms of commerce",⁶⁶ that promotional marketing should be guided by the principle of fair treatment,⁶⁷ and that codes of conduct in marketing should be encouraged.⁶⁸

Source: OECD and UNCTAD.

Box 17. Peru's social media campaign to prevent misleading online advertising

In 2016, Peru's consumer protection agency, INDECOPI, conducted two social media campaigns to carry out the International Consumer Protection Enforcement Network's coordinated action to combat misleading online advertising: one campaign on "drip pricing" involving misleading fees and the other one on fake testimonial reviews. The aim of these campaigns was to raise awareness among consumers on these types of misleading advertising of practices common online, to inform consumers of their rights, and to enhance business compliance. INDECOPI's use of social media to convey consumer information and education is one of its key communications strategies.

Source: UNCTAD.

Box 18. E-procurement in the Philippines

The Philippine PhilGEPS e-procurement system allows 35,000 participating government agencies to advertise and manage open tenders with the 90,000 registered vendors, as well as conduct online shopping with request for quotations from the registered vendors for small value goods, services and works. The system includes a government-managed e-catalogue of common goods and services of about 500 items. The Government, through the Procurement Service Bureau, conducts open procurement on these items to achieve the best value by standardizing specifications and quality, and consolidating all government requests to achieve volume discounts. Agencies can purchase any items directly through the Procurement Service Bureau without any tender. The e-catalogue supports the order requisition, payment and fulfilment. For other small-value purchases, agencies would follow government guidelines in the use of the e-procurement system for an open tender or request for quote from vendors. The Government of the Philippines views the use of e-procurement as a stimulus for SMEs to adopt and participate in e-commerce by providing vendors easy, open access to opportunities around the country. Since the implementation of the PhilGEPS system, the Government continues to see an increase in trade and participation in tenders by vendors outside of their local or regional market.

Source: Fagan, 2016.

Egypt, including public and private training centres. With the recent devaluation of the Egyptian pound, the low cost of labour makes Egypt internationally highly competitive. Egypt's talent pool and training support environment provide opportunities for e-commerce companies seeking to outsource their customer services, businesses seeking to expand their call centres and BPO operations, as well as for multinational enterprises sourcing qualified local staff for specialized corporate back-office and business support services in areas such as engineering, software development, ERP, cloud computing, financial analysis, human resources, legal affairs, marketing and other services.

b. E-payments ecosystem

With its regulatory framework and rapid increase in the number of adults with access to e-payment mechanisms, Egypt stands at an inflexion point and is well positioned to transition towards more widespread use of e-payments. Newly issued financial regulations have removed constraints previously restricting a more rapid growth of mobile money accounts. These regulations open up the role of Egypt Post and agents to foster rapid adoption of mobile money, including in rural areas, among the unbanked and in the delivery of payments for microfinancing. Further initiatives aimed at switching government payments to electronic channels have strong prospects for further accelerating the usage of e-payments for e-commerce. The fintech industry, which is already an active player in Egypt's e-payment services market, can play an even greater role.

c. ICT sector and growing demand

Opportunities exist for the growth and expansion of existing sectors in Egypt, including in the ICT

sector and software development, as demand for e-commerce applications rises and market access expands. As a leader in IT, outsourcing and BPO industries, Egypt is well poised to service this growing market, including its own domestic market.⁶⁹ IT opportunities in traditional sectors, such as logistics and retail, also exist, especially if they upgrade and grow with the emerging IoT market.

d. IoT niche market in smart greenhouses

In the longer term, in the area of R&D, Egypt has strong potential and opportunities for developing new markets relating to IoT, in particular in IoT Smart Greenhouses which, combined with innovative new water technologies, could pioneer a niche "smart" industry in cutting-edge desert resilience (see box 19). Should proper long-term investments and planning be undertaken, development of this industry and refinement of the smart greenhouse technology could enhance the country's productive capacity in horticulture, enabling Egypt to meet domestic food security needs and increase exports, while expanding national productivity into desert lands. The greenhouse technology could be further expanded into a "Gardens in the Desert" tourist attraction of interest to horticulturalists, scientists, environmentalists, garden enthusiasts and general curiosity tourists, and featuring some architecturally stunning smart greenhouse designs, "The New Pyramids", in architect I.M.Pei style design, as a modern, high-tech complement to Egypt's traditional tourist sites.

Accessing Egypt's current IT ecosystem of leading global companies and IT expertise headquartered

Box 19. Smart greenhouses in the desert

The first high-tech, smart greenhouse in the United States capable of producing most cool season food crops year-round in the scorching desert, True Garden, was built in Phoenix, Arizona, where temperatures reach 120 degrees Fahrenheit during the day and 90 degrees at night during peak months. During the hot summer months, the greenhouse utilizes a combination of smart and efficient technologies to affordably keep the greenhouse at optimal temperatures. By using vertical aeroponic technology, the greenhouse recirculates valuable water and uses 95 per cent less water than conventional agriculture.

In Israel, advanced water technologies and smart garden solutions are emerging. One innovative new water technology makes it possible to produce clean drinking water from air. The technology – using a system of filters, chilling techniques and proprietary software – transforms captured humidity in the air into water. The Israeli company Water-Gen, founded in 2009, manufactures water generators that can yield as much as 825 gallons of water per day at an energy use rate of 1 kilowatt of energy per 4 litres of drinking water.

In 2017, the City of Miami Gardens in the State of Florida in the United States, and Water-Gen, launched a pilot project to address the city's water shortage problems. The company has also signed accords in India and Viet Nam, two countries that have faced water shortages. The deal in India was with the Asian giant's second-largest solar company to produce purified water for remote villages in the country. The accord in Viet Nam was with the Hanoi Government to set up water generators in the capital city.

Source: UNCTAD.⁷⁰

in Smart Village and other technology parks will be important to accelerate Egypt's development of a cutting-edge innovation and R&D capability in the e-commerce sector, advanced "smart" technologies and growing IoT industry. Partnering with these leading companies will help the establishment of global innovation labs and technology centres specializing in prototype development and applied research in e-commerce and smart technologies, strategic areas such as Smart Greenhouses, and in enabling Egypt to enhance its technological capabilities to pioneer R&D in new e-commerce-related growth industries. Building on the momentum, sustained government

R&D funding, the establishment of programmes to enhance technological capabilities, linkages to key international research collaborators in the scientific community, and coordination among various sectors within Egypt – i.e. ICTs, agriculture, energy, as well as cooperation with technology transfer organizations – will be important for Egypt to become a leader in this e-commerce R&D capacity.

On the basis of the findings of the diagnostic, UNCTAD has developed six sub-strategies to support Egypt in achieving its overarching strategic objective and goals in e-commerce. They are covered in detail in chapter 3.



CHAPTER 3:
A NATIONAL
STRATEGY
TO SUPPORT
EGYPT'S
E-COMMERCE
VISION AND
GOALS

A. Egypt's e-commerce vision

Egypt has many strengths that can be leveraged for e-commerce, but its potential is still far from fully tapped. The country should take the necessary steps to leverage e-commerce for consumer convenience, enhanced competitiveness of its enterprises, exports of goods and services, and inclusive economic growth.

In the national e-commerce strategy, Egypt has set out a vision for helping to expand e-commerce for growth and development in Egypt to the benefit of its people and businesses. The vision seeks to tap Egypt's strengths and comparative advantages for e-commerce, and to help overcome key obstacles and bottlenecks. The vision and goals which Egypt has established are defined as Egypt's Vision 2030, particularly in terms of GDP growth and greater prosperity of its citizens.

Egypt's vision for e-commerce is:

By 2020, Egypt fully leverages the potential of e-commerce and the talents of her people to boost domestic trade, regional and international exports, to provide a channel for consumers and businesses to buy and sell, and to create jobs and innovation in the e-commerce ecosystem, producing e-commerce products, services and applications.

Closely aligned with this vision is the following mission statement for the strategy:

To boost Egypt's export competitiveness and trade capacity by leveraging e-commerce and by establishing Egypt as a major trade hub through online commerce, nationally and internationally. This will involve harnessing Egypt's entrepreneurial capacity, optimizing its strengths in information technology services and business process outsourcing, and developing the necessary support environment among public and private sector stakeholders to stimulate the use of e-commerce by consumers and businesses.

The stated goal is:

By 2020, e-commerce is making a significant contribution to growing Egypt's exports and internal trade, creating jobs and growth of the Egyptian economy equivalent to at least 2.35 per cent of both B2B⁷¹ and B2C e-commerce to the GDP, in particular through e-commerce adoption by key economic sectors (see methodology in annex 2).

B. Overarching strategic objective: Leverage e-commerce to increase the wealth of the nation

Target 2020: 2.35 per cent of e-commerce ratio to GDP

The overarching strategic objective is to increase the wealth of the nation and of the Egyptian people by helping to unleash Egypt's productive capacity through e-commerce in the economy. Increased efficiencies, trade and cross-sectoral and industrial cooperation around e-commerce will synergize into a virtual cycle of increased and sustained economic growth, revenues and job creation (see table 8).

E-commerce can expand market access and facilitate businesses' export competitiveness. It also plays a role in enhancing productive capacity by providing products and services to key sectors, such as manufacturing, which reduce costs, spur technological innovation, and optimize key product processes and operations, as well as human resource development. Emerging technologies, such as 3D printing and IoT, can drastically enhance and transform production processes. Digitally delivered services which strengthen productive capacity include cloud and cloud-based simulations, virtualization, big data and enterprise mobility. E-platforms providing standards, as well as factor sourcing and supplies, are among the e-commerce products which can help to enhance productive capacity.

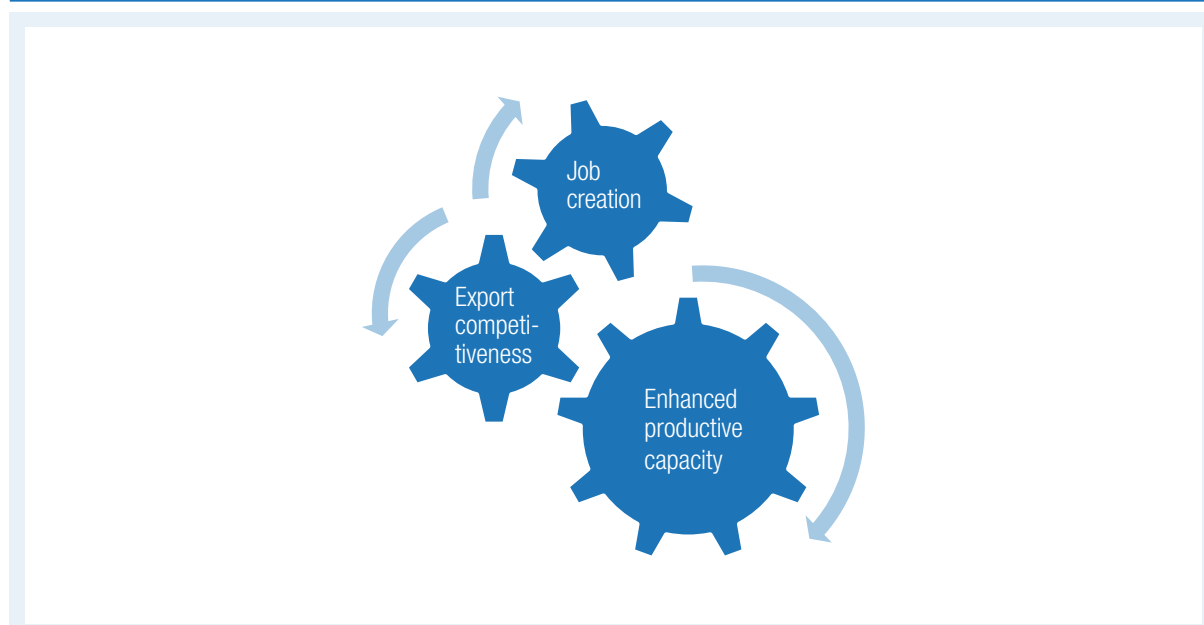
In addition, outsourcing of traditional back-office operations and the reduced operational expenses due to lower costs for facility space free up funds that can be invested toward improving internal efficiencies, technological upgrading and quicker equipment retooling. The e-commerce marketing channel also plays an important role in providing more demand by raising awareness and interest in online sales of products and services. Through increased export competitiveness, enhanced productivity and growth among both large and small businesses, in the retail sector and e-commerce-supporting industries such as logistics and payments, e-commerce can also create jobs. Taken collectively, e-commerce can help to trigger a synergistic a "virtuous cycle" (figure 5).

E-commerce can play a role in growing industries by strengthening production chains (global supply or value chains) or through the clustering of firms from the same industry and supporting industries.

Table 8. Overview table of strategy to achieve Egypt's overarching strategic objective: Leverage e-commerce to Increase Egypt's Wealth of the Nation

Sub-strategy or megaproject	Strategic goals within overarching strategic objective			
	Export competitiveness	Enhanced productive capacity	Create jobs	Generate public revenue
Sub-strategy 1: Empower businesses through e-commerce	X	X	X	X
Sub-strategy 2: Leverage e-commerce to incentivize formalization of the informal sector		X	X	
Sub-strategy 3: Exploit strengths of the ICT sector for e-commerce	X	X	X	X
Sub-strategy 4: Boost Egypt's logistics sector into a regional hub	X	X	X	X
Sub-strategy 5: Stimulate growth of payment sector	X	X	X	X
Sub-strategy 6: Build Egypt's e-commerce market		X	X	X
Megaproject 1: Creation of an e-commerce hub	X	X		
Megaproject 2: Construction of a national B2C e-marketplace	X	X	X	X
Megaproject 3: Launch a rural e-commerce development initiative	X	X	X	
Megaproject 4: Empower youth and SMEs for e-commerce	X	X	X	
Megaproject 5: Activate and create additional e-commerce payment methods	X	X	X	X
Megaproject 6: Brand Egypt's BPO/ITES sector	X			X

Source: UNCTAD.

Figure 5. Linkages of e-commerce with export competitiveness, productive capacity and job creation

Source: UNCTAD.

There are several other mechanisms through which e-commerce grows industries (see figure 6). In some industries, the adoption of ICTs to support online marketing, sales or service delivery can transform or substantially enhance the efficiency and profitability of an industry (Mechanism A). E-commerce can grow supporting industries to the e-commerce retail sector, for example, the logistics sector (Mechanism B). Local industries can grow by joining global value chains for crucial ICT hardware, software and related services needed for the growth of an industry, for example, semiconductor chips or chip design, as in the case of Egypt. In the global value chain for the growing e-commerce-related IoT industry, for example, semiconductor chips are essential (Mechanism C). Growth opportunities also exist in brand new industries relating to e-commerce, in particular in emerging new technologies such as IoT, 3D printing and virtualization (Mechanism D).

Both B2C and B2B e-commerce can help by eliminating excess supplier production and in ensuring that supply is driven by demand. Through its marketing channel capacity to trigger product or service demand generation in the local, regional and global markets, e-commerce can help fuel export demand. This, in turn, helps drive supply, increased efficiencies and

productive capacity to meet this demand. As suppliers expand their productive capacity and increase profits, they are able to invest and strengthen their production capacities, including through technological upgrading, to better meet global demand. This, in turn, can further fuel demand for their products in a virtuous cycle (see figure 7).

The overarching strategic objective can only be achieved by:

- Mobilizing all sectors to adopt e-commerce for buying and selling goods and services;
- Strengthening export competitiveness;
- Mobilizing the creation of jobs through e-commerce;
- Making the enabling environment more conducive to online commerce; and
- Optimizing government infrastructure and processes to support and benefit from e-commerce growth.

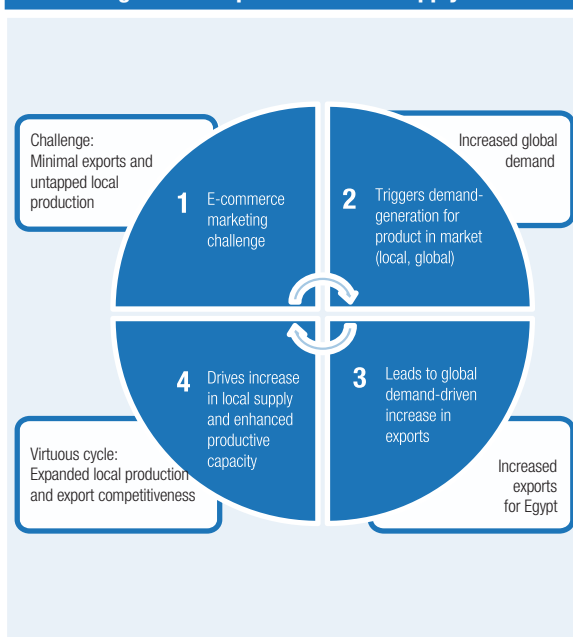
Developments in sectors such as ICT infrastructure and ITES, financial services and logistics will be needed to create a supportive environment for e-commerce growth. Achieving this overarching intervention relies on the effective implementation of each of the six sub-strategies in this strategy.

Figure 6. Growing industries through e-commerce



Source: UNCTAD.

Figure 7. E-commerce-supported demand generation to generate exports and drive supply



Source: UNCTAD.

C. Strategic goals and sub-strategies

The achievement of the vision and mission statement is guided by six strategic goals, which develop the themes inherent in this vision and mission:

Goal 1: Empower businesses through e-commerce

Target 2020: To double the number of businesses using e-commerce

Goal 1 is designed to empower businesses through e-commerce and to strengthen enterprise use of e-commerce. The performance of Egyptian businesses of all sizes in the adoption ICT and of e-commerce lags behind the average reported performance for middle-income countries for both placing and receiving orders. There is a need for greater adoption of the Internet among MSEs and greater uptake of e-commerce among enterprises of all sizes.

Through this goal, Egypt aims to achieve the following first goal:

By 2020, there has been a doubling since 2015 of the number of Egyptian businesses selling online

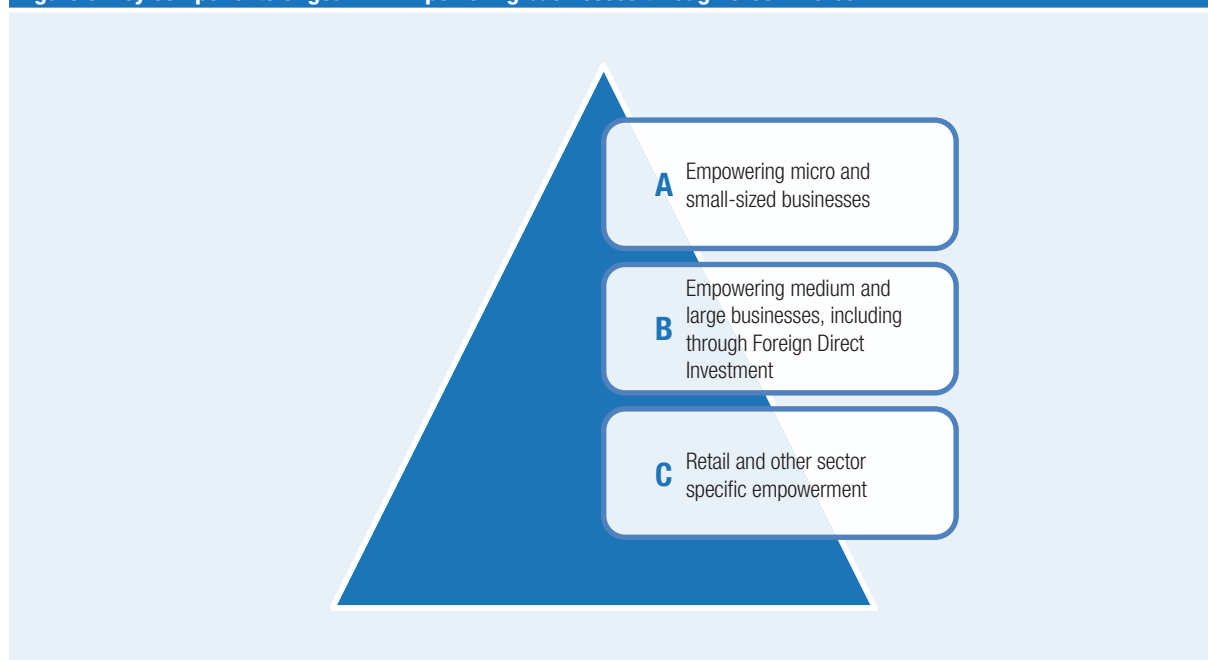
and a doubling of the value of their e-commerce transactions.

This use of e-commerce will enable Egypt's businesses to:

- Increase market reach, particularly in export markets;
- Enhance service delivery to the consumer markets in Egypt and abroad;
- Strengthen their linkages to multinationals and firms in other countries;
- Improve their participation in domestic and international supply chains.

The goals will build on the IT sector's strength in bringing new applications to Egypt, the IT systems already in place in large businesses, that will form the back-office applications for e-commerce and the training programmes in IT literacy for SMEs provided by ITI and ITIDA. Business use of e-commerce will also require a business environment conducive to investment and the adoption of e-commerce and conditions in businesses of all sizes and sectors that encourage and enable them to adopt e-commerce.

Figure 8. Key components of goal 1 – Empowering businesses through e-commerce



Source: UNCTAD.

Goal 1A: Empower Egypt's small businesses through e-commerce

Figure 9. Sub-strategy 1A – Eight point plan for strengthening e-commerce among micro and small businesses



Table 9. Strategic recommendations/actions: Sub-strategy 1A – Eight-point plan for strengthening e-commerce among micro and small businesses

No.	Goal 1A: Empower micro and small businesses through e-commerce	Short, medium, or longer-term target	Essential (E), Important (I), or Useful (U) action	Responsibility
1. Bring offline businesses online				
1	Encourage launch of national weekly television show featuring interviews with successful Egyptian small business entrepreneurs who have effectively adopted technology and e-commerce in their businesses. Talk show format hosted by charismatic presenter to establish wide viewership. Appoint select e-commerce business owners for each governorate as champions to make television and radio interviews and appearances, and to do hands-on road shows on the opportunities made possible by e-commerce in small towns and rural areas.	M	I	MCIT, National television and Broadcasting Association
2	Information dissemination featuring video series on value proposition of e-commerce for small businesses and offering supplementary in-person hands-on workshops through chamber of commerce and sector-specific business associations. Also to be disseminated through small business support services of ICT non-governmental organization (NGOs) in all governorates.	S	E	Chamber of Commerce, business associations, ICT NGOs
2. Upgrade and automate online businesses				
3	Through the E-commerce Centre of Excellence and Technology Innovation and Entrepreneurship Centre, introduce an E-commerce Automation Programme for MSMEs featuring hands-on workshops and demonstrations on upgrading and automation e-commerce applications designed specifically for the needs of MSMEs and offering business owners opportunities to meet with small businesses that have successfully automated and upgraded. Funding for a select number of small businesses should also be made available through application, and these automation pilot projects used to walk through and demonstrate to all participating businesses how an automation process can be implemented from beginning to end. Video series on upgrading and automation techniques also to be produced and made available through a digital library (as well as in CD format) disseminated through the Centres of Excellence, as well as ICT NGOs.	M	E	TIEC, Chamber of Commerce and business associates
4	Integrate e-commerce, digital marketing and web tools, Internet security skills and related training into existent business development support services throughout the country, including the ICT NGOs.	M	U	IMC, Bedaya Institute, Chamber of Commerce
5	Creation of networks for women micro-entrepreneurs and youth interested in e-commerce and digital marketing. Launch a social media and mobile-based information network for women micro-entrepreneurs and youth. To be coordinated in conjunction with business development support services, activities and trainings for women and youth entrepreneurs.	S	I	MCIT, General Authority for Investment (GAFI) (Bedaya Institute), Social Fund

Table 9. Strategic recommendation/actions: Sub-strategy 1A – Eight-point plan for strengthening e-commerce among micro and small businesses (Continued)

No.	Goal 1A: Empower micro and small businesses through e-commerce	Short, medium, or longer-term target	Essential (E), Important (I), or Useful (U) action	Responsibility
3. Commercial real estate designed for small e-commerce businesses				
6	Introduce commercial real estate model designed for small e-commerce businesses, in particular in available office spaces in Desert Cities and new tech parks. In addition, a mixed-use retail and residential real estate development model (bundled with mortgages for low and medium income housing) could also be explored. See best practice in box 6	M	E	MCIT, ITIDA, GAFI
4. Tax incentives for small businesses				
7	Offer tax deduction on expenditure incurred in the development of e-commerce enabled websites.	S	I	MCIT, MOF
5. National awareness-raising on MSEs				
8	Launch an annual Small Business and E-commerce Week celebrating, honouring and recognizing small businesses, with strong thematic focus on e-commerce.	S	I	MCIT, Ministry of Trade and Industry, Chamber of Commerce
6. Promote e-procurement and local sourcing				
9	Government to launch a national office for the development of suppliers and, in collaboration with private sector, establish a national B2B e-marketplace for Egyptian suppliers and producers, including a pilot sourcing programme and information-sharing system with multinationals.	S	I	MCIT, Chamber of Commerce, Ministry of Industry and Foreign Trade
10	Appoint a Chairman on E-procurement (public) and establish under his/her oversight an e-Tendering Expert group to advise on policy initiatives relating to the architecture and design of e-procurement. The group should develop a national public e-procurement plan to roll out a new and improved e-procurement system. Establish a standard government e-procurement procedure and e-platform for the requisitioning and purchasing of indirect products and services for government use. Develop a multi-phased plan for incrementally rolling out public e-procurement to SMEs, including a training programme and orientation to e-platform. See best practice in box 18.	M	E	Ministry of Planning, Ministry of Finance
7. Export promotion				
11	The export promotion agency to offer tailored services for exporting e-commerce companies, including a computerized trade information database, arranging trade fairs and missions, conducting training and providing advisory services for exporting e-commerce companies.	S	U	MCIT, Ministry of Industry and Trade, Tradepoint, Export Development Agency
12	Tradepoint partnership with other country trade promotion B2B marketplaces to organize annual online exhibitions between their clients. The online exhibition is followed by a trade mission that brings the Egyptian participants to the partner country and vice versa.	S	I	MCIT, Ministry of Industry and Trade, Tradepoint
13	Launch SME E-commerce Champions Overseas Trade Fair Programme aimed at support, commercialization and promotion of small businesses globally.	S	I	MCIT, Ministry of Industry and Trade
14	Facilitate e-commerce trade among partners by leveraging customs duties exemptions through partnership agreements, free trade agreements and the WTO Trade Facilitation Agreement.	S	U	MCIT, Ministry of Industry and Trade
8. Incentivize competition				
15	Launch local entrepreneurship and competitiveness stimulus programme based on idea that each village has at least one native product that can provide the basis for a competitive business. Selected products are to be championed by the Government, showcased internationally and made available for purchase through a special website. Including use of quality and certification standards.	M	E	MCIT, Ministry of Industry and Trade, Ministry of Local Development

Goal 1B: Empower Egypt's medium and large businesses through e-commerce

Figure 10. Sub-Strategy 1B – Three point plan for strengthening e-commerce among medium and large businesses



Table 10. Strategic recommendations/actions: Sub-strategy 1B – Three-point plan for strengthening e-commerce among medium and large businesses

No.	Goal 1B: Empowering medium and large businesses through e-commerce	Short, medium, or long-term target	Essential (E), Important (I), or Useful (U) action	Responsibility
1. Foster online presence and e-procurement				
16	Encourage Egyptian businesses to invest in online presence, including online shopping capability where applicable, and to adopt e-procurement, including cloud and IoT-based ERP, inventory management, warehousing and distribution, and other services. Encourage development of integrated front-and back-office processes.	S	E	MCIT, GAFI, Chamber of Commerce, Eitesal
2. Enhance productivity and competitiveness for suppliers of e-commerce products through incentives for product and process improvement				
17	Enhanced Productivity and Competitiveness Initiative for suppliers of e-commerce products, including through innovative technology labs and pilot projects via Centres of Excellence to innovate and upgrade production processes. Introduce incentives for suppliers such as soft credit lines and credit guarantees for process and product improvement, as well as tax depreciations and tax exemptions for investment in laboratories and quality control equipment. Establish productivity networks, including virtual communities of practice on productivity by sector, to exchange information and best practices on raising productivity.	M	E	MCIT, ITIDA, Ministry of Industry and Foreign Trade, Ministry of Finance, Chamber of Commerce
3. FDI-related interventions to support e-commerce				
18	FDI strategy aimed at creating clusters of e-commerce-related businesses by targeting potential investors in select industry areas (services, advanced manufacturing, IoT, 3D printing).	M	I	ITIDA, GAFI
19	Encourage key international and regional B2C and B2B e-platforms and e-marketplaces (i.e. Amazon, Alibaba, eBay, Apple App Store) to invest in Egypt and to ensure that Egyptian merchants have full access for selling products, fulfilment services, app development.	M	I	MCIT, ITIDA, GAFI
20	Conduct review of current status of investment relating to ICT, smart technologies and technology sector – including strong focus on intersection of these technologies on innovations in horticulture and agribusiness sectors – and aimed at strengthening investment and innovation in these sectors.	M	U	International organizations
21	Encourage private sector investment on ICTs and e-commerce-related industries through cooperation with Egyptian diaspora.	S	E	MCIT, ITIDA, GAFI

Goal 1C: Empower Egyptian businesses across sectors and industries through e-commerce

Figure 11. Sub-strategy 1C – Five point plan on sector-specific and industry wide e-commerce measures for businesses



Table 11. Strategic recommendations/actions: Sub-strategy 1C – Five-point plan on sector-specific and industry-wide e-commerce measures for businessse

No.	Goal 1C: Sector-specific and industry-wide measures for empowering businesses	Short, medium, or long-term target	Essential (E), Important (I), or Useful (U) action	Responsibility
1. Organizational and legal measures				
22	Facilitate creation of a federation of e-commerce companies or industry association for e-commerce. This institution also to serve as industry liaison and representative for dialogue with Egyptian Government, as well as to mobilize market studies on the sector and its members.	S	E	MCIT, Ministry of Industry and Trade
23	Address issue of intermediary liability and provide in Egyptian law for limited liability for Internet service provider intermediaries.	S	E	MCIT, NTRA, , Ministry of Justice
2. Tourism sector				
24	Launch marketing strategy leveraging e-commerce to focus on specific tourism market segments. Egypt may wish to consider developing e-commerce products and services targeting market segment of tourists known as Egyptologists. These are regular international travellers to Egypt who are generally archaeologists, historians, linguists, art historians and customized tourist agents who specializes in Egyptology, the scientific study of Ancient Egypt and its antiquities. The strategy can aim to double the frequency of this market segment's travel to Egypt each year. Through cooperation between the Government of Egypt and the Museum of Egyptian Antiquities, e-commerce products and services can include the launch of a fee-based membership website for Egyptologists featuring digital content of interest on recent archaeological findings, hieroglyphics, art and ancient writings, along with special member travel discounts and conference incentives, offered for both advanced Egyptologist and amateur memberships, as well as institutional memberships.	S	I	MCIT, Ministry of Tourism, Ministry of Culture
3. Food/processed food sector				
25	As part of an "Introducing Egypt" outreach campaign, launch "Egyptian Kitchen to the World" branding and export promotion of Egyptian processed foods initiative, leveraging e-commerce and social media platforms for exports of food products. In conjunction, may also wish to encourage the launch of an Egyptian food ful franchise, based on a food app model, and sponsorship of social media-popularized national "Ful Fests". By raising the profile of Egyptian cuisine globally, this initiative also helps to set the ground for growing food tourism in Egypt.	S	E	MCIT, Ministry of Trade and Industry, Export Development Agency, Ministry of Industry and Foreign Trade, Ministry of Tourism, Ministry of Culture

Table 11. Strategic recommendations/actions: Sub-strategy 1C – Five-point plan on sector-specific and industry-wide e-commerce measures for business (Continued)

No.	Goal 1C: Sector-specific and industry-wide measures for empowering businesses	Short, medium, or long-term target	Essential (E), Important (I), or Useful (U) action	Responsibility
26	Encourage digitalization of insurance, home mortgage loan and real estate industries through marketing and sales of automobile insurance on websites and by mobile; through digitalization and digital marketing of the home mortgage industry. This may include creation of an online or app-based mortgage broker which matches individuals seeking mortgage loans with lenders offering competitive wholesale lending options for purchase of low- and medium-priced homes, and provides market information and loan comparison search engines. Aimed at targeting low- and middle-income segments and to be supplemented by government-supported affordable home ownership counselling agencies. Also encourage digitalization of real estate industry, in particular through creation of digital hubs through franchises in Egypt, i.e. real estate franchise Coldwell Banker.	M	U	ITIDA, Ministry of Finance, Insurance Federation of Egypt, Egyptian Automobile Manufacturers Association, banks
5. Professional training development and education sectors for e-commerce				
27	Strengthen the capacity of ITI and task it with the development of a certification programme in e-commerce. Promote Internet security education and related areas through closer collaboration with major international e-commerce, ERP and Internet security companies. Design certification series aimed specifically toward developing top-notch middle management capability for the e-commerce industry.	S	I	ITI
28	Undertake a market assessment and mapping of the processes and skills required at each step in the retail/e-commerce service and supply chain to develop specialized skills trainings for e-commerce, including customized curriculum and training delivery mechanisms.	S	U	Chamber of Commerce
29	To prepare the ground for e-commerce, create an entrepreneurial culture by embedding entrepreneurial content and knowledge in the curriculum starting at the high school level through to the university level. Embed entrepreneurial education in both degree and professional development programmes such as marketing, finance, IT, strategy, leadership and more. Create an inter-university platform (both online and offline) enabling aspiring student entrepreneurs to share business ideas and discussions and form an entrepreneurial mindset, including through the creation of an incubator/accelerator environment in every higher education institution in Egypt.	M	E	Ministry of Education, MCIT
30	Develop an introductory e-commerce self-learning package for offline retailers and service providers (such as payment processing, distribution and logistics, etc.) interested in learning about e-commerce and its application to their businesses.	S	U	MCIT, Chamber of Commerce
31	In cooperation with the private sector, develop beginner, intermediate and advanced sector-specific e-commerce trainings (handicrafts, food retail, etc.) and domain-specific e-commerce trainings (website creation, automation tools, online payment systems, fulfilment services, etc.) for entrepreneurs in mixed format (online and in-person). Develop women and youth-targeted trainings, taking into account their specific needs.	S	I	MCIT, Chamber of Commerce
32	To strengthen online content which can attract more consumers to the online environment for e-commerce, introduce curriculum and courses in online content development in universities, aimed at growing the online content development profession in Egypt, including talent market for online content developers and managers.	S	I	MCIT, Chamber of Commerce
33	Develop training programme for MSEs on how to make best use of existent e-commerce platforms and e-marketplaces. Branches of the Chamber of Commerce can help in delivering training programmes for public use.	S	I	MCIT, Chamber of Commerce, Social Fund
34	Encourage the creation or expansion of education e-marketplaces. See best practice in box 13.	M	I	MCIT, Ministry of Education

Goal 2: Leverage e-commerce to incentivize formalization of the informal sector

The second goal is designed to leverage e-commerce to incentivize more informal businesses to enter the formal economy. The Egyptian Government recognizes the importance and contribution of the informal sector to the economy. Nevertheless, the large extent of informality creates challenges:

- Government programmes, policies and support measures aimed at supporting the business sector and promoting the growth of small business are often beyond the reach of small informal businesses and traders;
- Informal businesses, due to their lack of awareness and ineligibility for many key resources such as e-marketplace membership, business advice and small business loans, are disadvantaged;
- (Regulatory measures aimed at supporting and

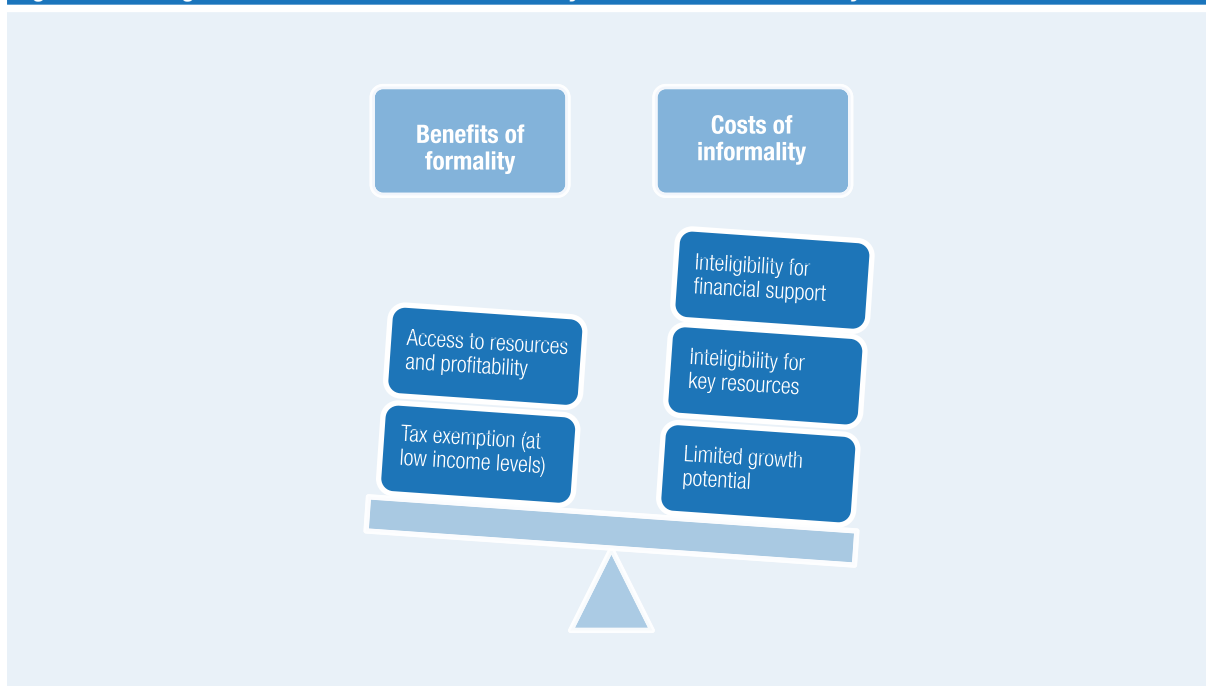
protecting small businesses cannot readily be imposed on the informal sector, subjecting them to increased risk and vulnerability, and less social protection.

In the long run, an increase in the proportion of businesses that register and thereby become formal is desirable. There is resistance in the informal sector to formalization. Tax avoidance and negative perceptions of the Government are some of the reasons for small businesses remaining informal. Conversion of the formal sector to the informal sector is a challenging process, and strategies to encourage formalization must take into account these various barriers.

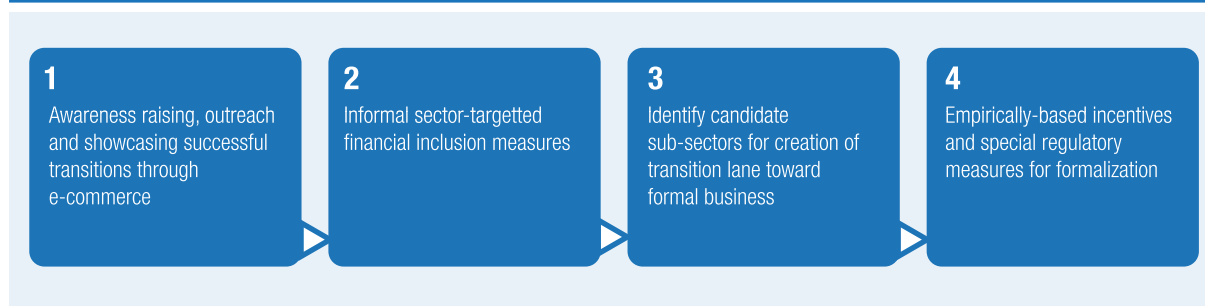
Egypt aims to achieve the following goal:

Through e-commerce, incentivize the recognition and transition of considerable numbers of informal, small and micro enterprises toward the formal economy and accelerate their financial inclusion.

Figure 12. Raising awareness on the costs of informality vs. the benefits of formality



Source: UNCTAD.

Figure 13. Sub-Strategy 2 – Four Point Plan for Incentivizing Formalization of the Informal Sector through E-commerce**Table 12. Strategic recommendations/actions: Sub-strategy 2 – Four-point plan to incentivize formalization of informal sector through e-commerce**

No.	Goal 2: Leverage e-commerce to incentivize formalization of the informal sector	Short, medium, or longer-term target	Essential (E), Important (I), or Useful (U) action	Responsibility
1. Awareness-raising, outreach and showcasing successful transitions through e-commerce				
35	Launch roadshow targeting informal businesses to be implemented in all governorates showcasing business opportunities through e-commerce, success stories and benefits offered to transitioning businesses. Information booths to be set up in markets. Registration drive to subscribe interest in national roll-out of free CD-based video series on e-commerce starter kit/ programme for offline businesses and to join in an SMS/Unstructured Supplementary Service Data ⁷² /Facebook or radio-based info network, also available by app. Participation open to informal businesses only. Sign up also announced through radio and market bulletin boards.	M	I	MCIT, Social Fund, Egypt Post
2. Informal sector-targeted financial inclusion measures				
36	Launch major mobile wallet outreach to unbanked businesses through agents and Egypt Post. Ensure outreach includes team of women agents to communicate with women and specific measures to reach unbanked women in rural areas. Bundle mobile wallet outreach with introductory information on e-commerce business opportunities made possible through e-payments.	S	I	MCIT, Social Fund, Egypt Post, banks
37	Provide briefings on mobile-delivery of microfinancing to loan recipients bundled with basic information on e-commerce business opportunities made possible through e-payments.	S	U	MCIT, Social Fund, Egypt Post, banks, microfinance institutions
3. Identify candidate subsectors for creation of transition lane toward formal business				
38	Conduct comprehensive assessment of informal sector, including primary types of informal jobs and key subsectors of informal sector in Egypt. On the basis of the analysis, identify candidate subsectors for creation of transition lane toward formal business. Data collection through focus groups and consultations with NGOs on prevailing attitudes toward formalization, major barriers, incentives and disincentives within the informal sector.	S	I	Social Fund
39	Conduct pilot project aimed at transitioning large numbers of informal businesses in underground food and street market vendor economy into formal businesses, supporting the development of an e-platform-based cottage industry for homemade cooking and creating entrepreneurship opportunities for women in this subsector.	M	E	MCIT, Social Fund, TIEC
4. Empirically-based incentives and special regulatory measures for formalization				
40	On the basis of empirical studies and analysis, explore viability of enacting entrepreneurship law to support transition of informal businesses to formal economy and to incentivize formality.	M	I	MCIT, Ministry of Trade and Industry, Ministry of Justice

Goal 3: Exploit strengths of the ICT sector for e-commerce

Goal 3 is designed to exploit the strengths of and opportunities in Egypt's ICT sector, including its infrastructure, for e-commerce. Egypt has a strong ICT infrastructure. It boasts a large pool of IT and engineering personnel. The IT and BPO sectors contribute significantly to the economy through revenue generation, job creation and innovation. These sectors are also major exporters of services to other countries in the region and elsewhere, and contribute to the wealth of the country through relatively high wages and salaries paid.

In addition to building on the strengths and opportunities of the ICT sector, the goal will also

leverage the following aspects of Egypt's ICT sector:

- Its potential to help make most sectors more competitive;
- The local development of software to meet the needs of Egyptian businesses;
- Its use by the financial services, logistics and insurance industries – which are all likely to want to move onto more e-commerce based systems.

The goal aims to enable Egypt to achieve the following goal:

By 2020, to build a cutting edge, world-class industry in IT systems development, applications for e-commerce and supplying excellent information technology services to many of Egypt's major businesses to enable their e-commerce functions.

Figure 14. Sub-Strategy 3 – Eight point plan to leverage the ICT sector for e-commerce

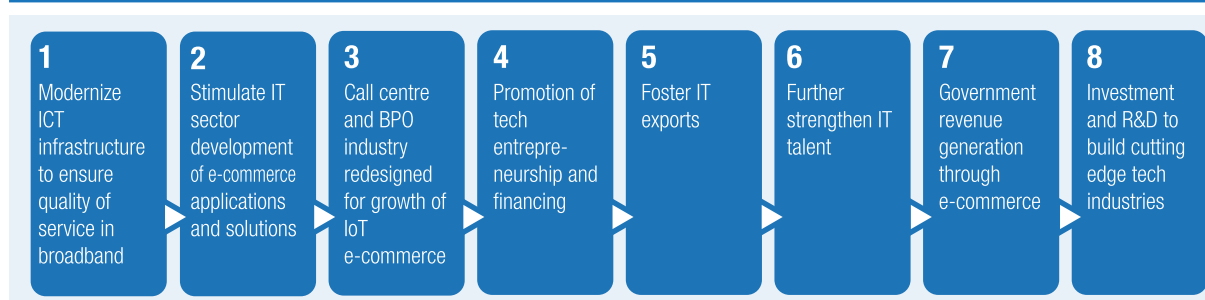


Table 13. Strategic recommendations/actions: Sub-strategy 3 – Eight-point plan to leverage the ICT sector for e-commerce

No.	Goal 3: Leverage ICT sector for e-commerce	Short, medium, or longer-term target	Essential (E), Important (I), or Useful (U) action	Responsibility
	1. Modernize ICT infrastructure and measures to ensure quality of service in broadband			
41	Continue to build out fibre access infrastructure through Telecom Egypt's FTTx programme.	M	E	Telecom Egypt, NTRA
42	NTRA should make available sufficient spectrum to satisfy the demand for mobile broadband services and release spectrum with good coverage characteristics for 3/4G mobile broadband in rural areas as soon as is possible.	S	E	MCIT, NTRA
43	NTRA should conduct a study investigating reasons which may compromise broadband QoS and, on this basis, establish and implement monitoring measures which can strengthen and improve QoS. The study should include an analysis of the following: (a) the quantity of spectrum assigned to operators for mobile services; (b) technical, commercial and administrative constraints on siting of base stations and power levels; (c) availability and pricing of fibre for backhaul from base stations and for trunk networks; (d) availability of capacity and pricing of national transmission services and services for backhaul from base stations, availability of capacity and pricing of access to international cables; and (e) availability of capacity and pricing of capacity on international networks. The study should include international benchmarks of capacity, pricing and regulation of spectrum, provision of fibre and telecommunications services.	S	E	NTRA

Table 13. Strategic recommendations/actions: Sub-strategy 3 – Eight-point plan to leverage the ICT sector for e-commerce (Continued)

No.	Goal 3: Leverage ICT sector for e-commerce	Short, medium, or longer-term target	Essential (E), Important (I), or Useful (U) action	Responsibility
44	Develop an innovative, systematic approach, vision, methodology and plan for strategic management of Egypt's QoS. This may include diagnostic techniques involving (a) analysis of congestion caused by traffic overflow and identifying root bottlenecks; (b) equipment type/IPv6 compliance and maintaining network equipment to avoid delays, which in turn are caused by poor servicing and maintenance network equipment; (c) low performance in large loads and loss due to retransmission of lost packets; (d) conducting a conceptual mapping between QoS and QoE to provide a combined view of network QoS and client's experience to provide better access (high bandwidth, QoS), to be able to efficiently carry different services and to integrate mobile and fixed architectures and service; (e) analysis of QoS methodologies and algorithms that link network parameters to the QoS experienced by users; (f) analysis of users' requirements for different applications to define QoS levels and services, etc. ⁷³ NTRA should also continue to apply pressure to operators and service providers over QoS. NTRA should continue its monitoring of mobile QoS and introduce monitoring of fixed broadband speeds.	M	E	NTRA
45	Continue to encourage infrastructure-based competition in the transmission market with the current roll-out of 4G, ending Telecom Egypt's monopoly and enabling the licensing of further transmission infrastructure and service providers.	M	E	MCIT, NTRA
46	Enable mobile operators to provide fibre to their base stations by giving mobile operators the right to dig and install fibre to meet their requirements and to provide services to other operators.	M	E	NTRA
47	Reduce the price of international gateway licenses to enable competitive provision.	S	E	MCIT, NTRA
48	Implement triple play, cable television bundled with Internet or other paid subscription options (to provide viable attractive alternative to illegal line sharing).	M	I	
49	Explore implementation of unified licensing framework, allowing service provision competition in rural areas.	M	I	MCIT, NTRA
50	Implement modernization of government IT infrastructure, prioritization on selected offices, i.e. taxation office.	M	E	MCIT, Ministry of Finance
2. Stimulate IT sector development of e-commerce applications and solutions				
51	Launch an E-commerce Centre of Excellence.	M	I	MCIT, ITIDA
52	Through the Centre of Excellence, MCIT should also launch an E-commerce TechCamp programme aimed at bringing together Egyptian developers and specialists from IT subsectors to develop e-commerce solutions.	S	U	MCIT, ITIDA, universities
53	To support deployment of advanced ICT applications and technologies, accelerate development and implementation of a cloud computing strategy, policy and a legal and regulatory environment that can help improve performance, productivity and efficiency for large, medium and small-sized businesses to engage in e-commerce.	M	I	MCIT, ITIDA
54	Support the development of Arabic e-commerce-related software and services by IT sector.	M	U	MCIT, ITIDA, Chamber of Commerce
55	Explore creation of public-private partnership in support of local e-commerce platform and hosting solutions for Egyptian businesses.	M	I	MCIT, ITIDA, Chamber of Commerce
56	Public-private partnership to launch special incubation programme awarded to local start-ups working to produce e-commerce platform and hosting solutions for Egyptian businesses.	M	U	MCIT, ITIDA, Chamber of Commerce, TIEC
57	The Government should conduct an assessment of the strengths and trustworthiness of Egyptian mobile apps development industry and encourage Apple to allow Egypt's app developers to sell their apps on the App Store. Based on the findings of the assessment, the Government may explore concrete measures to support mobile apps development in the country.	S	U	MCIT, ITIDA, Chamber of Commerce

Table 13. Strategic recommendations/actions: Sub-strategy 3 – Eight-point plan to leverage the ICT sector for e-commerce (Continued)

No.	Goal 3: Leverage ICT sector for e-commerce	Short, medium, or longer-term target	Essential (E), Important (I), or Useful (U) action	Responsibility
3. Call centre and BPO Industry re-engineered for growth in IoT e-commerce				
58	Conduct study of effect of IoT on call centre and BPO industry, develop specialized agent trainings and re-engineer industry for emerging e-commerce IoT environment.	S	I	MCIT, ITIDA, GAFI
59	Promote the development of full call centre and BPO services associated with B2B and B2C e-commerce and services for both small and large e-commerce companies and corporations, as well as emerging and newly digitalizing industries such as IoT and insurance. This includes specialized corporate back-office and business support services in areas such as engineering, software development, ERP, cloud computing, financial analysis, human resources, legal affairs, marketing and other services.	M	I	MCIT, ITIDA, GAFI
60	Introduce incentive measures to increase agent retention and strengthen the QoS provision by contact centre agent.	S	U	MCIT, ITIDA
61	Develop and enact data protection law.	M	I	MCIT, ITIDA, Ministry of Justice
62	Develop and enact intellectual property law to support growth of emerging IoT and 3D printing industries.	M	E	MCIT, ITIDA, Ministry of Justice
4. Promotion of tech entrepreneurship and financing				
63	Work closely with SMEs, start-ups, incubators and accelerators in the e-commerce and related tech spaces to design and provide specialized training that meets their needs.	S	U	ITIDA, GAFI (Bedaya Institute), Eitesal, Chamber of Commerce
64	Establish fund support programme for small and medium-sized youth enterprises in technology sector.	S	E	Youth Ministry
65	Establish IT and Industrial Technology Assistance Fund which provides matching grants to youth SMEs for technology acquisition and productivity improvement.	S	E	MCIT, ITIDA, private sector, donors
66	Encourage Egyptian banks and financial institutions to form venture capital funds from excess capital to invest in tech start-ups, including in particular fintech. Successful examples include venture capital funds of the Bank of Lebanon, the Bank of Ireland and UBS. See best practice in box 10.	S	I	MCIT, ITIDA, Central Bank, banks, Visa, Mastercard
67	Enact law authorizing formation of small business investment corporations, private sector financing institutions formed by individuals with private funds, and qualifying them for tax and other benefits.	M	E	MCIT, ITIDA, Ministry of Investment
68	Explore enactment of legislation providing tax incentives to individuals willing to invest in professionally managed venture capital firms.	M	I	MCIT, Ministry of Investment
5. Foster IT exports				
69	Examine the need for fostering software exports among MSMEs, including through new tax incentives and business development support through the new technology parks.	M	E	MCIT, ITIDA,
6. Further strengthen IT talent				
70	Conduct a study to analyse the projection of IoT on ICT-related skills, and identify the potential for value creation into the IoT ecosystem.	S	I	ITIDA, ITI
71	Develop a training aimed at introducing trainees to IoT and ICT. The specialized training should identify key curriculum for training at both undergraduate and post-graduate levels, as for entrepreneurs.	M	U	ITI, Eitesal, Chamber of Commerce
7. Government revenue generation through e-commerce				
72	Examine the need for a clear e-commerce tax policy for Egypt on the basis of examination and consideration of e-commerce tax treatment in other countries and aligned with OECD international standards, with particular focus on VAT on retail consumption in e-commerce. Introduce simplified arrangements for the payment of VAT. See best practice in boxes 11 and 12.	M	E	MCIT, Ministry of Finance, Tax Bureau

Table 13. Strategic recommendations/actions: Sub-strategy 3 – Eight-point plan to leverage the ICT sector for e-commerce (Continued)

No.	Goal 3: Leverage ICT sector for e-commerce	Short, medium, or longer-term target	Essential (E), Important (I), or Useful (U) action	Responsibility
8. Investment and R&D to build cutting edge tech industries				
73	Further develop electronic chip design and electronics industry, in particular with development of autonomous cars manufacturing industry.	L	E	MCIT, ITIDA, Eitesal
74	Develop cutting edge new industry in R&D IoT Smart Greenhouses with innovative new water technologies, with an aim to build this industry to expand Egypt's horticulture productivity, e-commerce and exports in the long-term. Conduct a scoping and investment study for Egypt's development of a cutting-edge R&D industry in smart greenhouses, pioneering the growth of IoT and the convergence of horticulture and innovative new water technologies. As Israel has a number of key suppliers in innovative new water technologies, Egypt may wish to explore using its Qualifying Industrial Zone Trade Agreement to help grow the industry. Formulate strategic plan for development of industry. See best practice in box 19.	L	E	MCIT, ITIDA, Ministry of Agriculture,
75	Foster industry growth of conventional modular construction, prefabricated buildings and architecture industry in combination with development of 3D printing, particularly in modular construction. Conduct scoping study to explore developing this industry to build low-cost homes and buildings to meet domestic needs and, leveraging Egypt's logistical access and proximity, for potential exports to continental Africa on the basis of regional demand. Formulate national strategy for 3D printing.	L	I	MCIT, ITIDA, Egyptian Federation of Construction

Goal 4: Boost Egypt's logistic sector into a regional hub

Goal 4 is designed to boost growth in the logistics sector in support of e-commerce. Egypt is well placed to act as a trading and logistics hub. It sits geographically at the crossroads of East and West and of international trade routes connecting the Mediterranean to Asia. From ports to land transport corridors, Egypt can build up its logistical capacity and infrastructure, and leverage its comparative advantages in support of e-commerce.

The sub-strategy will support the achievement of this goal by:

- Increasing the efficiency and ease of use of customs and trade facilitation services;
- Developing and leveraging the full capacity of Egypt Post to support e-commerce;

- Developing a fulfilment and logistics sector that has the scale necessary to support a rapidly growing distance-selling culture within Egypt as well as across the Maghreb, Levant and sub-Saharan Africa;
- Ensuring that the underlying transport infrastructure allows for affordable deliveries to any inhabited locations, including remote governorates.

The goal aims to enable Egypt to achieve the following goal:

By 2020, Egypt's full capacity to supply and support the growth of e-commerce is being exploited through the provision and use of integrated logistics services that benefit from efficient national service providers, such as national postal services, as well as cross-border customs and trade facilitation processes.

Figure 15. Sub-Strategy 4 – Six point plan for boosting growth in the logistics sector and making Egypt into a regional logistics hub

Table 14. Strategic recommendations/actions: Sub-strategy 4 – Six-point plan for boosting growth in the logistics sector and making Egypt into a regional logistics hub

No.	Goal 4: Boost Egypt's logistics sector into a regional hub	Short, medium, or longer-term target	Essential (E), Important (I), or Useful (U) action	Responsibility
1. Simplify and accelerate border procedures				
76	Develop and implement an online customs clearance platform by automatic transmission and make steps toward implementing a Single Window System.	L	I	Ministry of Finance, Central Directorate of Policies and Customs Procedures, in cooperation with MCIT
77	Implement an Authorized Economic Operator programme or equivalent and simplify customs valuation procedures.	M	I	Ministry of Finance, Central Directorate of Policies and Customs Procedures, in cooperation with MCIT
2. Strengthen intergovernorate logistics and to rural areas, including reduced costs				
78	MCIT may catalyse interaction between e-commerce companies and logistics service providers to improve logistics services for e-commerce in rural areas, poorer governorates and between governorates. Create MCIT committee on intergovernorate logistics composed of public and private sector to develop strategy.	M	E	Postal Authority, Egyptian International Federation Freight Forwarders Association
3. Form public-private sector e-commerce cooperation on logistics and leverage public-private partnerships for e-commerce logistics				
79	Develop national e-marketplace in close cooperation with the private sector.	M	E	MCIT, Federation Egyptian Industries, Chamber of Commerce
80	Egypt Post may wish to offer inexpensive, expedited export-oriented postal delivery services for small businesses, based on Brazil Post's Easy Export model.	S	I	MCIT, Egypt Post, Ministry Trade and Industry, International, UPU
81	Egypt Post to develop specialized services geared toward needs of e-commerce entrepreneurs, i.e. counter services for customer e-commerce package retrieval at postal facilities.	S	U	MCIT, Egypt Post
4. SME e-commerce logistical support, including expedited exports services				
82	Create a network of customs information centres for companies, in particular to support needs of SMEs.	M	U	Ministry of Finance, Central Directorate of Policies and Customs Procedures
83	Develop and launch an electronic platform for issuance and management of licenses, permits and/or certificates related to foreign trade (i.e. importers/exporters registration certificates, phytosanitary certificates, certificates of origin, warehouse licenses, etc.).	M	E	MCIT Ministry of Finance, International: UNCTAD Asycuda (Phytosanitary E-certification system)
84	Develop information tools for companies such as Binding Tariff Information. Make steps toward launching a Comprehensive Integrated Tariff System, providing international traders with a single source of information, such as duty and tax rates, and required documentation (certificates, quotas, restrictions and licenses) or complementary tools. Make available online.	M	U	Ministry of Finance, Central Directorate of Policies and Customs Procedures in cooperation with MCIT
85	Create a dedicated telephone number to facilitate contact between firms and all customs services.	S	U	Ministry of Finance, Central Directorate of Policies and Customs Procedures
5. Enhance logistics and supply chain efficiency, including warehousing, distribution, value added services and supply chain management.				
86	Foster development of warehousing industry by facilitating ease in licensing application procedure. Launch integrated licensing e-platform.	M	E	GAFI, Ministry of Trade and Industry
87	Encourage strengthening role of national freight and logistics association in facilitating dialogue and communications among all players in industry.	S	U	MCIT, Egyptian International Federation Freight Forwarders Association

Table 14. Strategic recommendations/actions: Sub-strategy 4 – Six-point plan for boosting growth in the logistics sector and making Egypt into a regional logistics hub (Continued)

No.	Goal 4: Boost Egypt's logistics sector into a regional hub	Short, medium, or longer-term target	Essential (E), Important (I), or Useful (U) action	Responsibility
6. Strengthen insurance industry for logistics				
88	Expand the use of customs guarantees to enhance the ease, speed and efficiency of trade facilitation for both imports and exports trade in Egypt. Conduct study exploring the introduction of mandatory use of customs bond for customs guarantees.	M	U	Ministry of Finance, Central Directorate of Policies and Customs Procedures

Goal 5: Stimulate growth of payment sector

Goal 5 is designed to pave the way for growth in the payments sector in support of e-commerce and financial inclusion. Growth in e-commerce will need to be accompanied by a transition from cash-based trade to electronic payments. Cash as a primary form of payment for e-commerce transactions nullifies many of the speed, efficiency, and ease benefits offered by e-commerce, for both the buyer and seller, in particular for international transactions. The transport of cash entails safety and operational risks, and the cash hand-off for a distance sale often involves implicit costs in terms of cumbersome commutes and transport. Electronic payments – in forms such as mobile payments, credit card and online banking transfer – facilitate the e-commerce process and boost e-commerce buying and selling over time.

The preference for cash payment in Egypt stems from various factors, including those related to culture, perceptions about electronic payments and resistance to change. Many small businesses prefer cash over electronic payments. The large unbanked population in Egypt's lower socioeconomic tiers is also subject to ineligibility for many forms of electronic payments. With the strong emphasis on financial inclusion, rapid growth in payment card penetration, more than 94

million mobile phone subscribers and 100 per cent mobile penetration, Egypt is well positioned to increase electronic payments for e-commerce. Mobile wallets and other e-money products, and mobile phone-based acceptance, also offer to advance access to transaction accounts in a cost-effective manner. Financial inclusion measures play an important part of engaging large segments of the population as potential consumers and businesses for e-commerce.

The fifth goal aims to enable Egypt to achieve the following goal:

By 2020, the financial sector provides a comprehensive portfolio of financial and payment products for e-commerce that enables consumers of all market segments to participate in e-commerce, and both formal and informal traders to have affordable merchant accounts.

Baseline 2017: (a) usage of payments: approximately 8 per cent; (b) usage of mobile payments: approximately 1 per cent; (c) proportion of adults with access to transaction accounts: approximately 14.1 per cent.

Target 2020: (a) usage of payments: approximately 50 per cent; (b) usage of mobile payments: approximately 3 per cent; (c) proportion of adults with access to transaction accounts: 60 per cent.

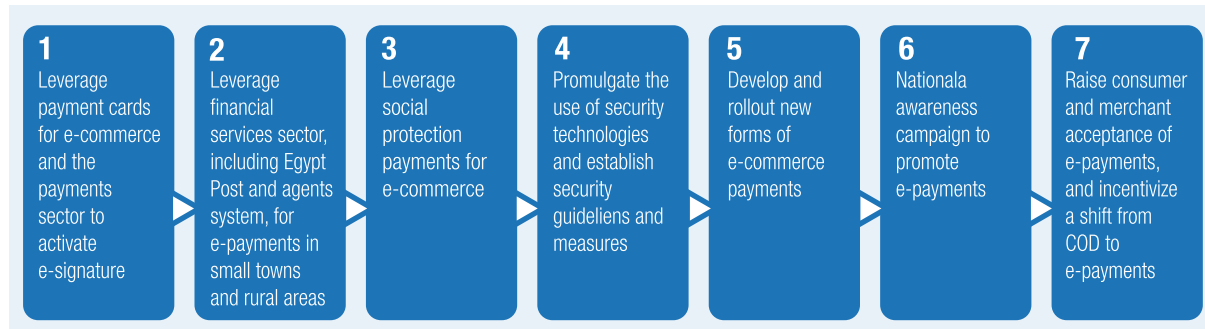
Figure 16. Sub-Strategy 5 – Seven point plan for strengthening e-payments for e-commerce

Table 15. Strategic recommendations/actions 5: Sub-strategy 5 – Seven-point plan for stimulating payment sector for e-commerce

No.	Goal 5: Stimulate growth of payment sector	Short, medium, or longer-term target	Essential (E), Important (I), or Useful (U) action	Responsibility
1. Leverage payment cards for e-commerce and the payments sector to activate e-signature				
89	Expand debit card issuance and activate all debit cards for online purchase capability	S	E	CBE, banks, Visa, Mastercard
90	Increase enrolment and use of credit card, PayPal and other payment card-based payment methods in conjunction with awareness campaign highlighting zero liability programmes and protections of such brands.	M	I	CBE, banks, Visa, Mastercard
91	Encourage Egypt's banking and payments sectors to assume a lead role in helping to operationalize e-signature usage through the initiation of e-signature in selected financial products and processes. Facilitate open discussion among key players in the sector on main factors constraining the use of e-signature for business.	M	I	CBE, banks, Visa, Mastercard
2. Leverage financial services sector, including Egypt Post and agents system, for e-payments in small towns and rural areas.				
92	Launch campaign, including through Egypt Post, to expand share of adults with access to transaction accounts such as savings accounts, debit cards and mWallets in small towns and rural areas, specifically aimed at targeting the unbanked.	S	I	MCIT, Egypt Post
3. Leverage social protection payments for e-commerce				
93	E-commerce-enabled subsidy cards of social protection recipients, including bread subsidy and fuel payment cards.	M	U	MCIT, Ministry of Supply and Internal Trade and Ministry of Social Solidarity, Visa, Mastercard
4. Promulgate the use of security technologies and establish security guidelines and measures				
94	Strengthen electronic payments by fostering the adoption of industry best practices relating to data security across e-commerce sites, payment gateways, payment system operators and payment service providers. There should also be the introduction of state-of-the-art e-commerce authentication mechanisms, such as 3D Secure for payment cards and 2-factor authentication for mWallets money. E-payment security guidelines establishing common minimum industry standards should be established. See best practice in box 7.	M	E	CBE, Banks, Visa, Mastercard
5. Encourage the development and roll-out of new forms of e-commerce payments				
95	CBE should progress on the ongoing review of regulatory framework for mWallets and e-money products, and encourage mWallet issuers to enable them for e-commerce capability and e-commerce payments.	M	E	CBE, NTRA
96	CBE should encourage EBC to develop payment mechanisms that allow direct payment from bank accounts and/or ACH-enabled payments, for example, along the lines of Deal in the Netherlands, the Unified Payment Interface (UPI) in India, and similar products in other parts of the world. See box 9.	M	U	CBE, EBC
6. National awareness campaign to promote e-payments				
97	Launch a national awareness campaign on the usage of credit cards, debit cards, mWallets and prepaid cards for e-payments for e-commerce, emphasizing the safety and convenience of these. Awareness should be raised about the zero liability programmes of payment card brands and e-commerce sellers should be encouraged to offer clarity on rights of buyers.	M	I	MCIT, ITIDA, CBE, banks, CPA
7. Raise consumer and merchant acceptance of electronic payments, and incentivize a shift from cash on delivery to electronic payments for e-commerce				
98	Establish a national annual award scheme to recognize top-performing businesses in adoption of e-payments and volume of e-payments. See best practice in box 8.	M	E	Ministry of Finance, MCIT, banks, Visa, Mastercard
99	Launch a national "lottery" scheme to incentivize use of e-payments among consumers. See best practice in box 8.	M	E	MCIT, Ministry of Finance, Mastercard, Visa

Goal 6: Build Egypt's consumer market for e-commerce

Goal 6 is designed to build Egypt's consumer market, foster consumer engagement and protect consumer interest in e-commerce. Despite widespread use of smartphones, the level of consumer purchases online is low in Egypt. Consumer aversion for change and discomfort with new ways of buying and doing business are strong mitigating factors. Nonetheless, the country has a high level of e-commerce-ready consumers. Universal adoption of e-commerce can be a slow and steady process, for example, spanning two decades in some developed e-commerce markets. Creating favourable conditions and incentives for consumer engagement and protection can help accelerate consumer adoption of e-commerce.

The goal aims to enable Egypt to achieve the following goal:

By 2020, consumers are aware of the benefits and risks associated with e-commerce, and many have the means by which to use e-commerce to buy goods and services. Consumers develop comfort and ease in shopping online, which becomes the national norm. Consumer purchases online are adequately protected

by law. Currently, 5.3 per cent of individuals who use the Internet bought goods and services online in the past year. Over the next three years, e-commerce is increasingly adopted as individuals gain experience and trust so that by 2020, 15–20 per cent of individuals who use the Internet buy goods and services online in the course of a year.

Building Egypt's consumer market will require the following conditions:

- Basic digital literacy skills have been promulgated among the majority of the population. Good quality, affordable broadband services are available to the overwhelming majority of Egyptians and used by at least 50 per cent of the population by 2020;
- Consumer protection measures for e-commerce have been promulgated and are enforced;
- Measures to ensure payment security in credit cards and other electronic payment methods have been introduced;
- Bank accounts and payment products are available for all consumers and used by many;
- The regulatory environment and trade facilitation environment are favourable for consumers as well as businesses.

Figure 17. Sub-Strategy 6 – Six point plan for building Egypt's consumer market for e-commerce

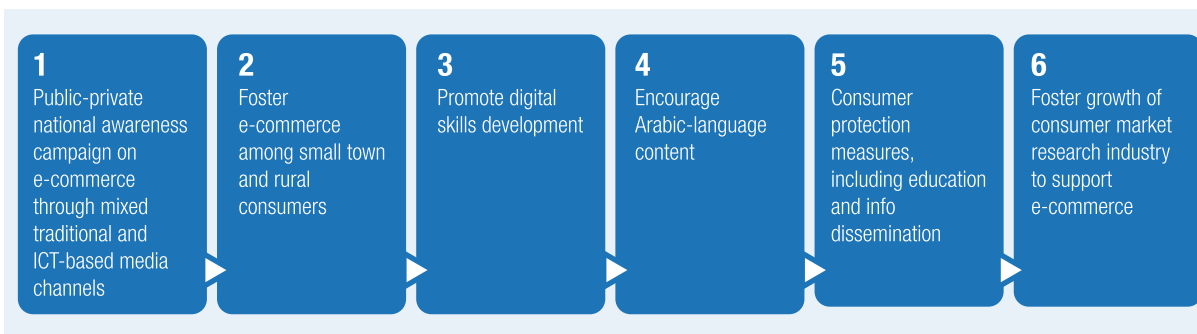


Table 16. Strategic recommendations/actions: Sub-strategy 6 – Six-point plan for building Egypt's consumer market for e-commerce

No.	Goal 6: Build Egypt's consumer market for e-commerce	Short, medium, or longer-term target	Essential (E), Important (I), or Useful (U) action	Responsibility
	1. Public-private national awareness campaign on e-commerce through mixed traditional and ICT-based media channels			
100	Undertake a large-scale consumer awareness initiative on e-commerce, including consumer rights education, working closely with private sector and targeting the different types of stakeholders involved in e-commerce such as consumers, small businesses, banks, government officials, etc. To be delivered through television, radio, websites, social media and other digital channels.	M	E	MCIT, CPA

Table 16. Strategic recommendations/actions: Sub-strategy 6 – Six-point plan for building Egypt's consumer market for e-commerce (Continued)

No.	Goal 6: Build Egypt's consumer market for e-commerce	Short, medium, or longer-term target	Essential (E), Important (I), or Useful (U) action	Responsibility
2. Foster e-commerce among small-town and rural consumers				
101	Leverage the branches of the Chamber of Commerce to develop a rural e-commerce service centres network and strengthen IT Clubs. See best practice in box 14.	M	E	MCIT, ITIDA (Local Industry Development), Chamber of Commerce, Ministry of Local Development, Ministry of Trade
102	Launch a rural youth partners for e-commerce initiative (similar to Rural Taobao partners programme. See best practice in box 15.	M	I	MCIT, Ministry of Youth
103	Develop an e-marketplace for farmers to support Egyptian farmers in complement with launch of Egyptian agriculture commodity exchange planned in 2017.	M	I	MCIT, Ministry of Agriculture
3. Promote digital skills development				
104	Develop an e-commerce self-learning package or introduction for Egyptian consumers interested in learning about e-commerce and its application.	S	U	MCIT, CPA, ITI
4. Encourage growth of online content development profession and market, including Arabic-language content				
105	In addition to providing training and education in online content development (see recommended action number 32), encourage entrepreneurial growth of creative agencies industry in Egypt which create innovative video content, making use of free new video content tools from social media platforms. Launch creative content award in universities.	S	E	MCIT, ITIDA, GAFI (Bedaya Institute), e-commerce companies
106	Launch national online course platform and best content award, encouraging the open submission of e-course content in areas ranging from academia and science to popular culture and fitness/sports.	S	U	MCIT, academia
5. Consumer protection measures, including education and info dissemination				
107	Implement the consumer protection standards set out in OECD 2016 "Consumer Protection in E-commerce Guidelines", including section C: Online Disclosures, and in the United Nations Guidelines for Consumer Protection. See best practice boxes 16 and 17.	S	I	CPA
108	In complement to the existing consumer protection law, ensure that distance selling law is expedited and passed in Parliament, and address online dispute resolution.	S	E	CPA, Ministry of Justice
109	Cybersecurity law, including security policy and guidelines	M	E	MCIT
6. Foster growth of consumer market research industry to support e-commerce				
110	Encourage formation of a non-profit National Market Research Association. Association to work closely with e-commerce companies, retailers and other consumer-oriented businesses, advertisers, digital marketers, online content developers and other market research professionals to determine the information needs of the e-commerce industry and provide services, including consumer opinion polling, market statistics and other e-marketing intelligence aimed at gauging the Egyptian consumer's needs, interests, habits and tastes.	M	E	MCIT, e-commerce companies, academia

Table 17. Summary of national e-commerce strategy for Egypt**Overarching strategic objective: Leverage e-commerce to increase the wealth of the nation**

In the context of Egypt's overall national objectives, e-commerce should serve as a conduit to increase the wealth of the nation through economic growth, export competitiveness, enhanced productive capacity and job creation. The aim is to raise the ratio of B2C and B2B e-commerce activities to 2.35 per cent of GDP. From a macroeconomic lens, e-commerce can facilitate growth in selected industries and spur job creation, in particular youth employment. Export-promotion institutions and trade agreements can be leveraged to foster e-commerce exports. Key government processes are also important, including modernization of government IT infrastructure to allow for seamless digital processes, and establishing an adequate legal and regulatory framework.

Goal 1: Empower businesses through e-commerce

Sub-strategy 1A: Eight-point plan for strengthening e-commerce among micro and small businesses

Sub-strategy 1B: Three-point plan for strengthening e-commerce among medium and large businesses

Sub-strategy 1C: Five-point plan on sector-specific and industry-wide e-commerce measures for businesses

Empowering businesses is at the core of the e-commerce strategy. Egypt aims to double by 2020 the number of companies, currently about 4,000, that do business online. B2B e-commerce remains largely unexploited by both large and small businesses in Egypt. With rapid advances in technology, converting manual processes to digital ones is not as costly and complicated as in the past. B2B – whether through direct selling or a B2B e-marketplace – can give Egyptian businesses the advantage of reduced transaction costs, greater efficiencies, higher productivity and profitability. While the infant e-commerce market is growing, its full potential is far from exploited. Many established Egyptian retailers do not have an online presence. Few small businesses are online or making use of the e-marketplace. B2B and public e-procurement are greatly underused. Strategic investments in and financing for e-commerce companies are hence crucial. Creating a favourable regulatory environment for e-commerce, including for export facilitation, and skills development, are important for empowering businesses to expand in domestic and international markets.

Goal 2: Leverage e-commerce to incentivize formalization of the informal sector

Sub-strategy 2: Four-point plan for incentivizing formalization of the informal sector through e-commerce

The digital economy also offers opportunities to include microenterprises in the informal sector. In the absence of formal sector employment, informal enterprises absorb the bulk of livelihood activities. Formal microenterprises account for up to 80 per cent of employment in many developing countries. As MSEs in the informal sector are not captured in national reporting, the actual contribution of the MSE sector to the economy is even larger. The informal sector helps to absorb work capacity and stimulate entrepreneurship. However, it also strains the economy, creating unfair competition for formally registered small businesses. E-commerce can serve as a channel for incentivizing informal MSEs to formalize with the help of appropriate incentives.

Goal 3: Exploit strengths of the ICT sector for e-commerce

Sub-strategy 3: Eight-point plan to leverage the ICT sector for e-commerce

E-commerce should be leveraged to exploit the strengths and opportunities of Egypt's ICT sector. This will involve investment in and continuing modernization of infrastructure, especially with Egypt's current implementation of 4G. The country's strength in IT talent, for example in software, should be harnessed for greater exports of IT and IT-enabled services. New and innovative digital products from Egypt's IT sector can facilitate greater government revenue. Egypt's technology sector is a key driver of the country's promising entrepreneurship and innovation. Fostering high-calibre IT talent and attracting skilled talent from abroad can further foster e-commerce.

Goal 4: Boost Egypt's logistics sector into a regional hub

Sub-strategy 4: Six-point plan for boosting growth in the logistics sector and making Egypt into a regional logistics hub

Egypt should leverage e-commerce to galvanize growth in the logistics sector. Egypt's many logistical advantages can be exploited and can help to launch the country as a regional logistics hub. In order to succeed, several key steps are needed. Customs clearing needs to be simplified and accelerated. Domestic logistics capabilities and service delivery levels should be strengthened to enhance regional and international logistics and supply chain efficiency. Making use of trade agreements, such as the WTO Trade Facilitation Agreement, to facilitating exports to trading partners (for example, the European Union, United States, sub-Saharan Africa, Gulf Cooperation Council and China) will be crucial, including through the installation of automated exports systems. Egypt Post can play a big role due to its penetration throughout the country and its ability to deliver. The cooperation of Egypt Post and domestic and international logistics partners is key in this context.

Goal 5: Stimulate growth of payment sector

Sub-strategy 5: Seven-point plan for stimulating payment sector for e-commerce

While Egypt has a sound payments system in place and a base of people holding credit cards, debit cards and access to other forms of e-payment such as mobile payments, encouraging the use of e-payment and its acceptance among retailers remains crucial. Expanding the number of people with access to e-payments, particularly in rural areas, and increasing e-payment methods for e-commerce are necessary. This will require effective cooperation among the banks, the postal sector and the retail industry. It will be necessary to increase the percentage of the population with access to transaction accounts. Elimination of barriers to e-payment usage is necessary for boosting e-commerce. Fostering security and trust in e-payments and incentivizing e-payments should be done in conjunction. With the high penetration of mobile phones, mobile payments, in particular in rural areas, are also an opportunity to further exploit for e-commerce.

Goal 6: Build Egypt's consumer market for e-commerce

Sub-strategy 6: Six-point plan for building Egypt's consumer market for e-commerce

With its large population of Internet users, in particular among the youth, and as the largest Arabic-speaking country in the region, Egypt's consumer market has huge untapped potential. Building Egypt's consumer market for e-commerce will require multi-stakeholder cooperation cutting across several policy and strategic areas. Awareness-raising and skills development are as important here as is building a favourable regulatory environment, including consumer protection. Developing Arabic language content and fostering rural e-commerce would help accelerate the process. In addition, the sheer size of Egypt's market creates opportunities for building consumer market-based industries such as digital marketing and advertising, and consumer market research, creating a potential advantage that Egyptian business could subsequently leverage in other Arabic-speaking countries.

CHAPTER 4:
PROPOSED
MEGAPROJECTS⁷⁴



A. Megaproject 1: Creation of an e-commerce business facilitation hub

The e-commerce business facilitation hub will serve as a central point of information on how enterprises can engage in and benefit from e-commerce. It will offer an online portal with relevant information on how to start an online business, highlighting different options depending on the type of goods or services that the enterprise will be offering. The portal will provide easy access to valuable resources, such as established marketplaces, legal information, advisory services and more. It will serve as a gateway for entrepreneurs and MSEs to access relevant government authorities, as well as training programmes. Potential partners would include MCIT, ITIDA, Egypt Post, Jumia, Visa, Google and the Greek Village.

Main components of the initiative are (a) construction of the e-commerce hub platform and the development of relevant resources needed to support aspiring entrepreneurs as well as existing MSEs interested in expanding online, and will also serve as a location where e-commerce service providers such as logistics, banks and export authorities can provide information to MSEs; (b) development and provision of trainings; and (c) development of entrepreneurship diagnostic tools for start-up companies.

B. Megaproject 2: Construction of a national B2C e-marketplace

While there exist already a handful of e-marketplaces in Egypt, there are gaps in the market for platform infrastructure for Egyptian national retailers and domestic MSEs. E-marketplaces and e-retailers such as Knockmart, Yaoota, etc., and foreign owned e-commerce companies, such as Jumia and Souq, are targeting certain segments of the market. However, these do not appear to be well adapted to the needs of many domestic businesses. Many Egyptian national retailers, for example, grocery chains, continue to lack an online presence. Domestic MSEs face barriers which make it difficult for them to participate in mainstream e-marketplaces that are strong in offering international brands and that tend to host more ICT-sophisticated sellers.

Egypt Post has recently embarked on a major modernization and automation effort, and is positioning itself as a more important player in e-commerce. Other postal services, such as Brazil Post and Korea Post, have effectively entered the e-commerce

market, notably in areas such as logistics and delivery service, creating dedicated webstores and e-malls, facilitating regional and cross-border e-commerce as well as payments services. Drawing from these experiences, Egypt Post should consider engaging in the development of national e-marketplaces in close cooperation with the private sector. New online marketplaces should seek to fill existing gaps. With its vast network of postal offices throughout the country, extensive distribution infrastructure and financial services, it is well equipped to play an active role in this context. Partnership with key private sector players would ensure competitiveness in the market and long-term viability of new platforms.

There appears to be scope for new e-marketplaces with an emphasis on featuring domestic brands and businesses. Particular opportunities may exist for enabling MSEs in the handicrafts sector to market their products online. Another area to consider is improved exposure of Egyptian products to regional and international markets. The success of any future initiative will depend on the creation of effective collaboration with the private sector.

Key components of this initiative include:

- In close cooperation with the private sector, explore the viability of the development of new e-marketplaces, including a virtual storefront, cataloguing, mobile application, call centres and e-fulfilment services, including parcel delivery and payments;
- Reaching out to and training relevant businesses with no online presence to show their products on the e-marketplace;
- Exploring the scope for facilitating greater exports online of Egyptian products, for example, processed food, handicraft and furniture;
- Raising awareness about the new e-marketplaces to sellers as well as buyers inside Egypt and abroad.

C. Megaproject 3: Launch a rural e-commerce development initiative

This initiative would seek to seize the potential for rural e-commerce in Egypt. A 2016 Household Survey on E-commerce Usage found that some 30 per cent of online shoppers in Egypt live in rural areas. Development of rural e-commerce in Egypt will require collaborative efforts of both the public and private

sector. The initiative should build on the experience of other countries, such as China and Thailand, for example China's Alibaba Rural Taobao initiative (refer to box 15). A similar business model could be tested and adapted for the Egyptian context. In the absence of a large e-commerce company such as Alibaba, the Egyptian model would need to rely on available resources, for example, on Egypt's network of branches of chamber of commerce, Egypt Post and local e-commerce players, backed up by strong support from the Government, including the Social Fund, if appropriate.

The main components of the initiative would include (a) a network of service centres in rural areas providing e-commerce services through youth entrepreneurs, inspired by Alibaba's Rural Taobao Ecological Service Centre initiative and leveraging the branches of chamber of commerce; (b) enabling people in rural areas to use bread ration cards as a form of payment for online purchases; (c) provision of training to rural MSEs on how to start or improve selling online, in close collaboration with the new e-commerce hub; (d) a programme targeting Egyptian youth to take up e-commerce service centre jobs in rural areas (similar to Alibaba's Rural Taobao Partners programme); (e) construction of an e-commerce platform for farmers (similar to Alibaba's Rural Taobao Cuntaobao platform); (f) an initiative to create competition process in rural villages for entrepreneurship in local products and handicrafts (similar to Thailand's One Tambon – "One Village" – Programme).

D. Megaproject 4: Empower youth and SMEs for e-commerce

Egypt's large population of online social media-savvy youths offers potential for developing the e-commerce sector. In 2016, Egyptians 15–29 years of age comprised more than half of all online shoppers. In the past decade, Egyptian youths have shown themselves to be socially conscious, activism-oriented, and proficient users of technology for civic and service-related causes that give them strong capacity for entrepreneurship and innovation. This initiative would aim at soliciting the help of unemployed university graduates to help SMEs build their own websites or create virtual stores on available e-marketplaces, and promoting freelance opportunities in Arabic. While the Government would play a lead role in catalysing, supporting and coordinating the initiative, it would

need to secure a commitment by the private sector to empower youths and SMEs for e-commerce.

This initiative is composed of the following components: (a) E-commerce Youth Volunteering Programme, aimed at soliciting the help of unemployed university graduates to help SMEs build websites or to create virtual stores on e-marketplaces; (b) the construction of a local Arabic language freelancing platform aimed at connecting freelancers with SMEs seeking assistance with e-commerce related services; (c) the formation of a virtual network and platform for young entrepreneurs and freelancers to connect with incubators, entrepreneurial institutes and tech parks targeting e-commerce and digital market opportunities; and (d) the creation of digital content and a marketing hub for Arabic content in the industry's key tech parks aimed at leveraging the large youth population there.

E. Megaproject 5: Activate and create additional e-commerce payment methods

This project will seek to establish an authentication framework like 3D-Secure and universal adoption of this by banks, in order to set the ground for safely activating and enabling all debit cards in the market for e-commerce. In addition, it will create and/or strengthen two additional e-commerce payment methods in Egypt: (a) bank account-based electronic payments either via Internet (i.e. ACH-enabled payments) or some other electronic direct payment from bank accounts (i.e. Deal, UPI); and (b) e-money products, including mWallet, and strengthened interoperability among them. In parallel and in cooperation with Egypt Post where possible, there will be initiatives to promote the usage of e-payments for e-commerce by promoting awareness, creating industry-wide promotional campaigns like luck draws and lotteries, and adoption of zero liability for customers when transactions are not authorized by the payment service user.

F. Megaproject 6: Brand Egypt's BPO/ITES sector

Currency devaluation has made the ITES and BPO industry in Egypt internationally very competitive, making per seat cost very low for BPO. This megaproject will aim to strengthen this industry through a branding initiative (see box 20).

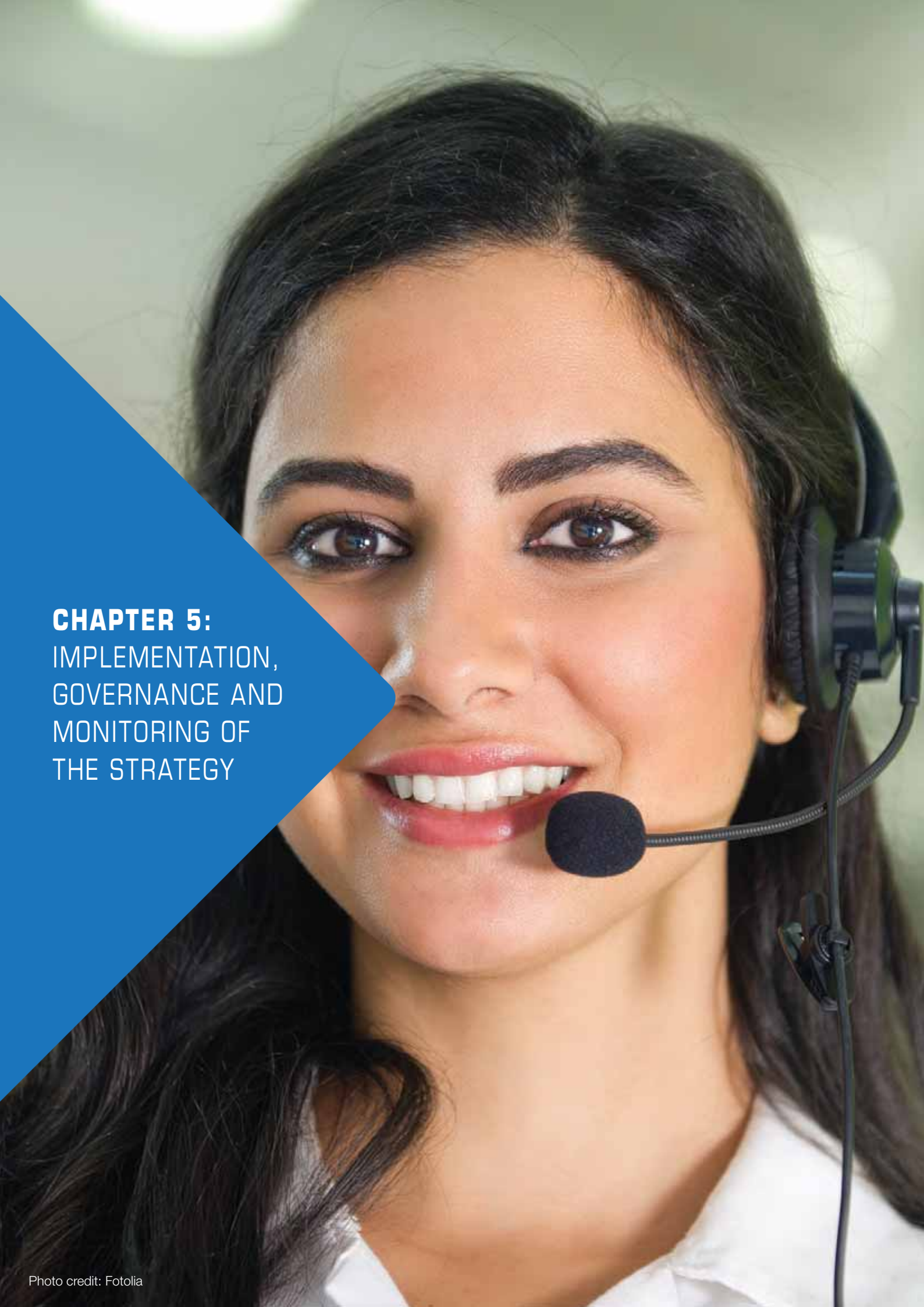
Box 20. A branding initiative for Egypt's BPO/ITES industry

Sports have always been an important part of Egyptian society, and a well-organized sporting event can play an effective dual role in helping to brand Egypt's BPO/ITES industry and in promoting national unity. MCIT and Egypt's IT industry may wish to consider becoming patron and sponsor of an industry "signature" event, the launch of an annual "Pharaonic Championship Games" featuring an epic triathlon race (running; cycling, also known as the modern-day "steel horse", reminiscent of equestrianism; rowing – all sports from Pharaonic times) from Cairo/Giza to Alexandria and along the Nile to Luxor, with a triumphal finish line at the Temple of Karnak/Luxor – a five-stage race over the course of five days designed to showcase Egypt's sportsmanship, cultural heritage and natural beauty through desert, fertile green valleys and the waters of the Nile. In capturing and embodying qualities such as "speed", "precision", "excellence in execution", "performance", "teamwork", "world class quality", "innovation" (MCIT to decide on the defining words of a branding slogan for the industry), the sporting event and the athletes can help to convey a strong branding image and message highlighting the strengths which Egypt's BPO/ITES industry has to offer a global clientele.

The national championship games should be designed first and foremost for Egyptians to symbolize and promote national pride and unity, and aim to be semi-professional with a substantial money prize, athletic scholarships and career opportunities for aspiring Egyptian athletes and youth. The core of the sports games should be national teams representing each of Egypt's governorates, though entry should be open to all interested qualifying Egyptian teams. In later years, the triathlon can be opened up to interested foreign teams. A fund through donations and contributions pooled from sponsoring companies in Egypt's ICT industry can support financing of the prize and other expenses.

A mobile app should be rolled out to popularize the event and enable all Egyptians to participate in a national lottery on the results of the Games. A website is also to be created for the event with (a) a daily blog, profiles of all the triathlon teams and team members, and sales of e-commerce products such as the sales of remote audience participation tickets targeting the global audience (providing access to livestreaming of the event, interviews with teams, training and fitness information for the global athletic community, Virtual Reality training simulations of the cycling route, GPS tracking, and other close-up information); and (b) the opportunity to bid on winning teams, and to make donations to community projects sponsored by the teams. The event should be used as an opportunity to showcase Egypt's IT industry and ITES products and services, especially relating to IT-related sports technology aimed at enhancing performance, and to strengthen Egypt's fitness industry.

Source: UNCTAD.



CHAPTER 5:
IMPLEMENTATION,
GOVERNANCE AND
MONITORING OF
THE STRATEGY

A. Implementation of the strategy

The strategy vision and goals will be realized through the initiatives specified in the strategy. These initiatives are intended to develop the awareness, understanding and practical knowledge of e-commerce in different sectors of society and business, remove barriers to the adoption of e-payments and e-commerce by consumers and businesses, and put in place the financial, technical and commercial support framework for businesses that wish to trade online, including start-ups and small businesses. While many of the required resources for the initiatives are available, they need to be effectively coordinated. To this end, this chapter proposes an institutional framework for the governance and implementation of the strategy.

B. Governance and implementation

The institutional framework for the governance and implementation of e-commerce strategy is shown in figure 18. Responsibility for implementing the strategy is vested in a newly created Ministerial E-commerce Committee to be chaired by the Minister of Communications and Information Technology and comprising heads of relevant ministries. These are the principal stakeholders who will provide for the vision for e-commerce development in Egypt, drafting and initiating policies to boost e-commerce, revision for current policies, creating new policies, and taking actions to overcome the obstacles facing e-commerce development. An MCIT National E-commerce Committee (also known as E-commerce Executive Committee) headed by MCIT will be established and will be responsible for monitoring policies implementation, coordination between different entities, participation at projects implementation, and will monitor problem-solving. The programme management unit is responsible for writing and revising projects documents, setting and measuring key performance indicators and monitoring reports.

It is anticipated that the Ministerial E-commerce Committee will meet initially to agree on the Action Plan and governance processes. The Ministerial Committee will meet semi-annually to review progress. The Project Management Unit will present a half-year progress report to the MCIT National E-commerce Committee, identify key successes, challenges and key performance indicators to each project.

The MCIT National E-commerce Committee would comprise Ministry representatives and representatives

from other organizations that have ownership of initiatives/projects. This Committee is responsible for coordinating with stakeholders and will follow implementation of the project sub-strategies, provide feedback to ministers and get guidance from ministers. It will be responsible for proposing changes of the Action Plan for approval by the Ministerial E-commerce Committee. The MCIT National E-commerce Committee will prepare and deliver a semi-annual progress report to the Ministerial Committee, highlighting progress in relevant areas of the E-Commerce Strategy, challenges encountered and recommending updates to the strategic objectives and targets.

The MCIT National E-commerce Committee will perform follow-up and monitoring, and submit reports directly to the Ministerial E-commerce Committee. Implementation of the strategy initiatives will be the responsibility of members. The Executive Committee should identify responsible offices who will serve as project owners for each initiative in the strategy – who, in turn, will be responsible for establishing indicators, baselines and targets for each initiative – and will hold them accountable for progress achieved. Resource requirements for governance should be relatively modest. The Ministerial E-commerce Committee and the MCIT National E-commerce Committee (Executive Committee) will require occasional secretariat resources for the Programme Management Unit.

C. Strategy monitoring, key performance indicators and audit

Monitoring and auditing of the strategy will take place at a strategic level and an action plan level. At the strategic level, performance will be monitored against the targets for the goals. The MCIT, in cooperation with the Central Agency for Public Mobilization and Statistics (CAPMAS), should be tasked with monitoring progress and collecting relevant information through conducting field surveys, as well as statistical information from offices responsible for strategy initiative implementation.

Seven surveys were designed and conducted by UNCTAD and cooperating partners for the strategy development (see annex 1 for more information). While key information from the survey findings has been incorporated in the diagnostic for the strategy, the survey results provide a large amount of valuable data which merits more in-depth analysis that goes beyond the scope of

this strategy work. The recommendations on statistics and data collection are summarized in table 18.

Drawing from the surveys as well as supplementary indicators, UNCTAD proposes the following set of key performance indicators (KPI), selected on the basis of important areas emerging from the country diagnostic, to support Egypt in benchmarking and monitoring its progress (see figure 19 and table 19). The KPI system – built on the ICTPR E-commerce Enabler and Assessment Framework – is designed to support the strategy implementation, establish baseline measures and monitor progress over time in key pillar areas of Egypt’s e-commerce ecosystem.

Progress will be monitored by the MCIT E-commerce Executive Committee using data supplied by the

initiative leads against milestones in the overall strategy and action plan. Initiative project plans will indicate how information for determining whether milestones have been achieved is to be collected.

Results of the initiatives will be audited as necessary. Auditing of initiatives will be carried out independently and will be reported to the E-commerce Executive Committee. The E-commerce Executive Committee will commission a yearly audit to review progress against strategic objectives and enabling objectives. It will also consider the performance of individual projects against plans. The audit will provide a written report that can be submitted to the Ministerial E-commerce Council.

Figure 18. Governance and implementation organization

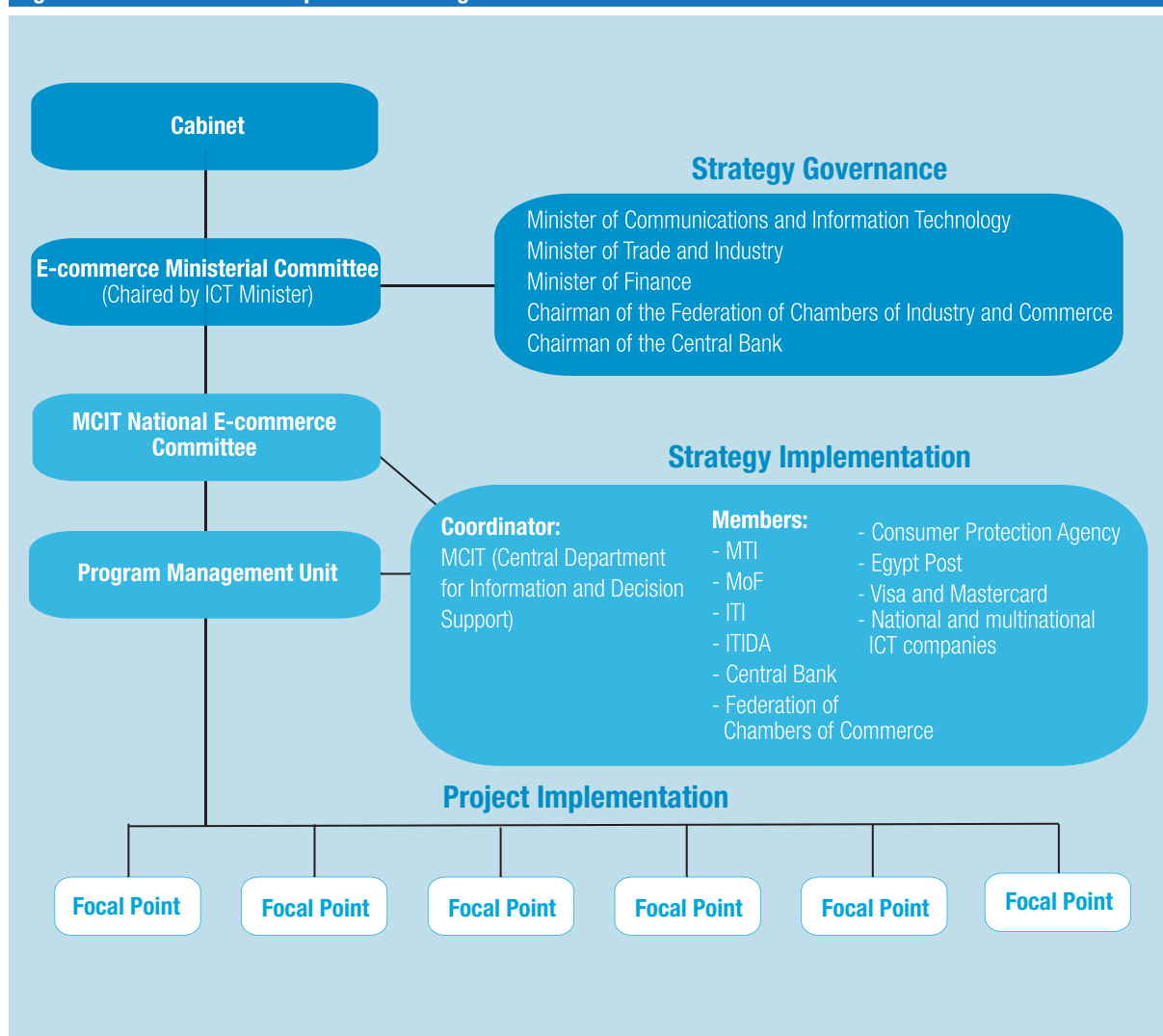


Table 18. Recommendation on statistics and data collection for monitoring on e-commerce

No.	Recommendations on statistics and data collection on e-commerce	Priority area	Responsible
S1	Develop and introduce an e-commerce retail sector survey, or incorporate a module aimed at collecting data on e-commerce sales in an existent national retail sector survey in Egypt	Gap in e-commerce services	CAPMAS, MCIT, Ministry of Industry and Trade
S2	Regularize national official data collection of E-commerce Survey of Microenterprises in Handicrafts Sector, as well as of all kinds of companies	Lack of MSE data	CAPMAS, MCIT
S3	Regularize data collection of E-commerce Survey on E-payments and Banking Services	Lack of e-payment data	CAPMAS, Central Bank of Egypt
S4	Regularize national official data collection of E-commerce Usage among Households and Individuals	Lack of data on household and individuals	CAPMAS, MCIT
S5	Regularize data collection for other surveys developed for the strategy development as felt appropriate	Lack of e-commerce data	CAPMAS, MCIT
S6	Conduct an in-depth analysis of the survey findings of IT clubs in order to determine the success factors which enabled the IT clubs to operate an effective revenue model and to build a business model for IT clubs on training and usage of ICT tools. In the medium term, the information can help in the launching of new IT service centers for the e-commerce and rural development megaproject through the branches of the Chamber of Commerce. This will involve an analysis, in particular, of the survey results on the "business model" module detailing how IT service centers achieved profitability and generated income. MCIT should probe what types of income the service center relied on, including the types of services offered, membership fee structure, etc. It may also be necessary to follow up with IT service centers to obtain more detailed information and clarify information. On the basis of this information, MCIT should construct a business model for the IT service centers which are to form the backbone for the E-commerce Rural Service Centres, which can ensure these centres' long-term sustainability.	Lack of data on IT clubs to build business model for new IT clubs	MCIT
S7	Benchmark progress in Egypt's e-commerce landscape by monitoring the selected KPI indicators identified for Egypt on the basis of the diagnostic (see figure 19). These indicators, which are specific to Egypt, are intended to support monitoring in key areas of importance to Egypt.	Lack of data in key e-commerce areas	CAPMAS, MCIT

Table 19. KPI's for Egypt**A. ICT infrastructure and telecom services**

1. Percentage of individuals using the internet
2. No. fixed broadband subscriptions per 100 inhabitants
3. No. active mobile broadband subscriptions per 100 inhabitants
4. Average download speed (Mbps) (fixed and mobile broadband)
5. Average connection speed capacity by region
6. Spectrum assignment to mobile operators (GHz)

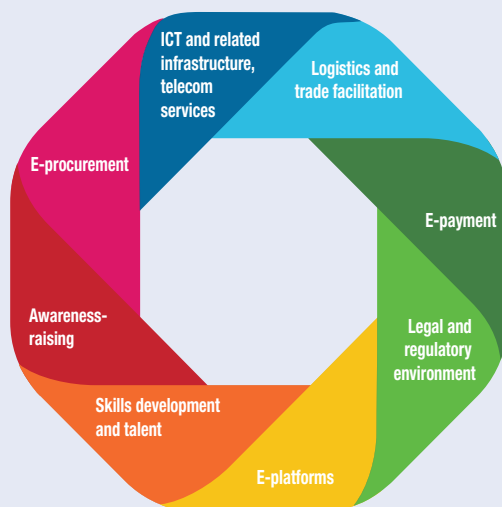
B. Logistics and trade facilitation

1. Average customs clearance time for import/export/transit
2. No. of Egyptian exporters who submitted export documentation through the electronic system
3. No. exporters who benefitted from customs duty exemption due to an existing trade agreement
4. A Modernized Trade Licenses Registration and Issuance system exists which makes possible electronic applications (yes/no)

Table 19. KPI's for Egypt (Continued)

5. Prime warehouse rent (EP/square meter/month)
6. Average cost per parcel for rural delivery (Egypt Post and third-party logistics providers)
C. E-payment
1. Number of transaction account holders, disaggregated by urban and rural). "Transaction account" is defined as accounts (including prepaid accounts and mobile money accounts) held with banks or other authorised and/or regulated payment service providers which can be used to make and receive payments and to store value.
2. Number of debit card transactions to make e-commerce purchases (per year)
3. Number of credit card transactions to make e-commerce purchases (per year)
4. Number of mobile wallet subscribers (total number of subscription in last year)
5. Number of e-commerce merchants accepting credit card or debit card payments (last year)
6. Percentage of credit card holders registered on a secure, internationally-accepted payment security system (e.g. 3D secure)
D. Legal & regulatory
1. E-signature law
2. Law providing consumer online protection (ie.distance selling law)
3. E-government e-signature law
4. Limited liability law on internet service provider intermediaries
5. Cybercrime law
6. Data protection law
E. E-platforms
1. No. of internet hosts under the domain of Egypt, e.g.
2. No. of internet hosts under the domain of e.g. as a percentage of the total population
3. No. B2C e-commerce websites (by e-marketplace, non-e-marketplace, national, international)
4. No. B2B e-commerce websites (by e-marketplace, non-e-marketplace, national, international)
5. No. C2C e-commerce companies
6. No. e-freelancer and reverse auction websites
F. Skills development
1. Student enrollment in programmes offering internet-assisted instruction
2. Total number of teachers teaching basic computer skills or computing
3. Number of MSEs in the handicraft sector who have received ICT training
4. A vocational and accreditation system for e-commerce sector professionals exists (yes/no)
5. Number of business development support services for businesses on e-commerce
6. No. of education or massive open online course e-marketplaces and e-platforms
G. Awareness raising
1. A television programme on small businesses in e-commerce has been launched and has a wide viewership (yes/no)
2. A national small business and e-commerce week has been launched (yes/no)
3. Number of awareness-raising campaigns on e-payments launched by banks
4. Number of business people attending awareness-raising sessions on e-commerce by the individual Egyptian Chambers of Commerce at the city level, the Federation of Egyptian Chambers of Commerce, and affiliated institutions.
5. Number of cities and towns reached by a roadshow introducing small businesses to e-commerce
H. E-procurement
1. Number of companies registered on the government e-procurement platform
2. Average number of bidders participating in an e-bid

Source: UNCTAD.

Figure 19. Selected key performance indicators (KPI) for monitoring e-commerce ecosystem in Egypt⁷⁵

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|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> ■ - Individuals using the internet (%) - Fixed broadband subscription per 100 inhabitants (number) - Active mobile broadband subscription per 100 inhabitants (number) - Download speed (average Mbps) (fixed and mobile broadband) - Connection speed capacity by region (average Mbps) - Spectrum assignment to mobile operators (GHz) | <ul style="list-style-type: none"> ■ - Internet hosts under the domain of Egypt: .eg (number) - Internet hosts under the domain of Egypt: .eg (number as % of total population) - B2C e-commerce websites by e-marketplace, non-e-marketplace, national, international (number) - B2B e-commerce websites by e-marketplace, non-e-marketplace, national, international (number) - C2C e-commerce companies (number) - E-freelancer and reverse auction websites (number) |
| <ul style="list-style-type: none"> ■ - Average customs clearance time - Egyptian exporters who submitted export documentation electronically (number) - Exporters who benefitted from customs duty exemption due to trade agreement - Trade license registration system permits electronic applications (yes/no) - Prime warehouse rent (Egyptian pounds/square meter/month) - Rural delivery (average cost per parcel) | <ul style="list-style-type: none"> ■ - Student enrollment in internet-assisted instruction (counts) - Teachers teaching computer skills (number) - Micro and small enterprises in handicraft sector who have received ICT training (number) - Vocational and accreditation system for e-commerce sector professionals exists (yes/no) - Business development support services on e-commerce (number) - Education or massive open online course e-marketplaces and e-platforms (number) |
| <ul style="list-style-type: none"> ■ - Transaction account holders by urban and rural (number) - Debit card transactions for e-commerce (number per year) - Credit card transaction for e-commerce (number per year) - Mobile wallet subscribers (number in last year) - E-commerce merchants accepting credit or debit card payment (number in last year) - Credit card holders registered on secure payment system, ie. 3D secure (% of total credit card holders) | <ul style="list-style-type: none"> ■ - Television programme on small businesses in e-commerce exists (yes/no) - National small business and e-commerce week has been launched (yes/no) - Awareness-raising campaigns on e-payments launched by banks (yes/no) - Business people attending e-commerce awareness-raising by chambers of commerce and affiliated institutions (number) - Cities and towns reached by introductory e-commerce roadshows for small businesses (number) |
| <ul style="list-style-type: none"> ■ - E-signature law (yes/no) - Consumer online protection law or equivalent (yes/no) - E-government e-signature law (yes/no) - Limited liability law on internet service provider intermediaries (yes/no) - Cybercrime law (yes/no) - Data protection law (yes/no) | <ul style="list-style-type: none"> ■ - Companies registered on the government e-procurement platform (number) - Bidders participating in an e-bid (average number per bid) |

Source: UNCTAD.

ENDNOTES

- ¹ “Know your customer” (KYC) refers to the process whereby a business or financial institution such as a bank identifies and verifies the identity of its client.
- ² This report defines e-commerce according to the OECD definition of e-commerce: “ the sale or purchase of goods or services, conducted over computer networks by methods specifically designed for the purpose of receiving or placing of orders. The goods or services are ordered by those methods, but the payment and the ultimate delivery of the goods or services do not have to be conducted online.” OECD Guide to Measuring the Information Society 2011, Paris.
- ³ UNCTAD, “Ministers to discuss opportunities and challenges of e-commerce with Jack Ma, eBay, Jumia, Huawei, Etsy, PayPal, Vodafone and more”, available from <http://unctad.org/en/pages/newsdetails.aspx?OriginalVersionID=1466>.
- ⁴ In Egypt, 5.3 per cent of Internet users bought online in the previous 12 months, as a percentage of the number of individuals aged 15 years or older who used the Internet in the previous three months.
- ⁵ UNCTAD (2015). Information Economy Report 2015 – Unlocking the Potential of E-commerce for Developing Countries. United Nations publication. Sales No. E.15.II.D.1. New York and Geneva.
- ⁶ Ibid.
- ⁷ UNCTAD’s ICTPR E-commerce Enabler and Assessment Framework and the Phases for Developing a National E-commerce Strategy were initially published in UNCTAD’s Information Economy Report 2015 (ibid.). They have been updated and refined in this report.
- ⁸ Payfort report 2015.
- ⁹ A.T. Kearney, Inc. (2016), The 2016 Global Development Retail Index: Global Retail Expansion at a Crossroads, available from www.atkearney.com/documents/10192/8226719/Global+Retail+Expansion+at+a+Crossroads%E2%80%932016+GRDI.pdf/dc845ffc-fe28-4623-bdd4-b36f3a443787. Also see MCIT Methodology in Annex 2.
- ¹⁰ See methodology in annex 2.
- ¹¹ Ibid. Also see MCIT Methodology in Annex 2.
- ¹² Ibid.
- ¹³ Ibid.
- ¹⁴ Otlob was bought by German investor Rocket Internet in 2015, available from www.wamda.com/2015/10/rocket-internet-buys-otlob-.
- ¹⁵ Daily News Egypt, “450 e-commerce websites in Egypt at end of 2015”, 24 May 2016, available from <https://dailynewsegypt.com/2016/05/24/450-e-commerce-websites-in-egypt-at-end-of-2015/>.
- ¹⁶ Daily News Egypt, “450 e-commerce websites in Egypt at end of 2015”, 24 May 2016, available from <https://dailynewsegypt.com/2016/05/24/450-e-commerce-websites-in-egypt-at-end-of-2015/>.
- ¹⁷ Daily News Egypt, “KnockMart.com launches initiative to partner with retail outlets in Greater Cairo”, 15 February 2017, available from <https://dailynewsegypt.com/2017/02/15/knockmart-com-launches-initiative-partner-retail-outlets-greater-cairo/>.
- ¹⁸ <http://www.arabiansupplychain.com/article-13067-amazon-planning-to-launch-logistics-centre-in-egypt/>
- ¹⁹ Categories were adapted from PWC Report: E-commerce in India Accelerating Growth.
- ²⁰ Egypt’s Ministry of Communications and Information Technology
- ²¹ Kamel, S. (2009). Evolution of Electronic Procurement in Egypt: Case of Speedsend.com. The American University, Cairo, chap. XVII, available from www.igi-global.com/chapter/evolution-electronic-procurement-egypt/10122.
- ²² Everest Group Research, “Evolution of Electronic Procurement in Egypt: Case of Speedsend.com”, an Everest Group Report, 2016, available from www.itida.gov.eg/En/Documents/Everest%20Group%20ViewPoint-%20Putting%20Egypt%20Back%20on%20your%20Location%20Radar%20March.pdf.

- ²³ Available from <http://swis.soficom.com.eg/services/ecommerce/ecommerce.htm>.
- ²⁴ Al-Monitor, "Shopping portal rides Egypt's e-commerce wave", available from www.al-monitor.com/pulse/originals/2016/11/egypt-shopping-portal-startup-economic-ecommerce.html#ixzz4mQ7VFBzG.
- ²⁵ OOXMonitor data 2015 and 2016.
- ²⁶ Ministry of State for Administrative Development, 2016, Government Procurement Portal, available from <https://etenders.gov.eg/en/index.php> (accessed 25 September 2017).
- ²⁷ MCIT, Measuring the Digital Society in Egypt: Internet at a glance. Statistical profile 2015 (Cairo, MCIT, 2015), available from www.mcit.gov.eg/Upcont/Documents/Publications_1272015000_Measuring_the_Digital_Society_in_Egypt_12_.pdf.
- ²⁸ MCIT (tbc).
- ²⁹ World Bank, 2016. Data. Egypt <http://data.worldbank.org/country/egypt-arab-republic> (accessed 25 September 2017).
- ³⁰ Ibid.
- ³¹ Payfort State of Payments Report 2014.
- ³² Available from www.export.gov/article?id=Egypt-Franchising-Industry-Sector.
- ³³ In Egypt, 5.3 per cent of Internet users bought online in the previous 12 months, as a percentage of the number of individuals aged 15 years or older who used the Internet in the previous three months.
- ³⁴ Yaoota study. Access at: <https://dailynewsegyp.com/2016/05/24/450-e-commerce-websites-in-egypt-at-end-of-2015/>
- ³⁵ This section is a summary of the findings of the diagnostic conducted for the development of Egypt's national e-commerce strategy. For more detail, the full diagnostic is available as a separate report.
- ³⁶ Available from https://gain.fas.usda.gov/Recent%20GAIN%20Publications/Retail%20Foods_Cairo_Egypt_1-22-2017.pdf.
- ³⁷ Egypt's Economic Profile and Statistics 2017, The Egyptian Center for Economic Studies, available from www.eces.org.eg/MediaFiles/Uploaded_Files/e7b0ad3f.pdf.
- ³⁸ Ministry of Planning, Egypt.
- ³⁹ AT Kearney.
- ⁴⁰ While there are no clear designations, second- and third-tier cities generally refer to cities which are smaller in size and more peripheral in contrast to a country's major metropolitan hubs.
- ⁴¹ ILO and UNCTAD partnered in 2013 to develop the new revised ILO Women's Entrepreneurship Development Framework, in particular on the technology component. It is published in the UNCTAD publication Empowering Women Entrepreneurs through ICTs: A Practical Guide, available from http://unctad.org/en/PublicationsLibrary/dtlstict2013d2_en.pdf.
- ⁴² In November 2016, as a necessary precondition to obtain a major International Monetary Fund loan, the Egyptian Central Bank allowed the Egyptian pound to float freely, leading to a dramatic devaluation.
- ⁴³ Nasr, S. and D. Pearce (2012). "Middle East and North Africa Region – SMEs for job creation in the Arab world: SME access to financial services" (World Bank).
- ⁴⁴ "EG Cloud Strategy", available from www.mcit.gov.eg/Publication/Publication_Summary/856.
- ⁴⁵ Daily Mail Egypt, "Egypt studies 5 scenarios to benefit from electricity production surplus", 6 August 2017, available from <https://dailynewsegyp.com/2017/08/06/egypt-studies-5-scenarios-benefit-electricity-production-surplus/>.
- ⁴⁶ A "tech start-up" refers to a business based on a business model driven by mobile/Internet access.
- ⁴⁷ Richard Branson, available from <https://www.virgin.com/entrepreneur/worlds-best-start-hubs-cairo-egypt>.
- ⁴⁸ A "virtual connector" refers to a unified tech ecosystem portal for the Egyptian tech start-ups community, bringing together information on entrepreneurs, start-ups, funders, tech spaces and parks, events, resources, etc.

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- ⁴⁹ UNCTAD consultations in the Greek Campus and with major players of tech entrepreneurship ecosystem, Cairo, March 2016. World Bank, “Egypt Tech Startup Ecosystem”, 2015.
- ⁵⁰ Egyptian Center for Economic Studies.
- ⁵¹ Daily Press, “E-Commerce Center of Hampton a new mixed-use concept with storage, office space”, 3 March 2017, available from <http://www.dailypress.com/business/dp-tidewaterbiz-ecommerce-center-20170303-story.html>.
- ⁵² Interviews with businesses on Greek Campus.
- ⁵³ June 2017 currency conversion rate.
- ⁵⁴ Foundation for Economic and Industrial Research, “Digital payments and tax revenues in Greece”, available from http://iobe.gr/docs/research/en/RES_05_F_21102015_REP_EN.pdf; The Economic Times, “Making your payments digitally? You may soon win Rs 1 crore in cash prize” available from http://economictimes.indiatimes.com/articleshow/55999857.cms?utm_source=contentofinterest&utm_medium=text&utm_campaign=cppst; and the Deccan Chronicle, “This is how a bank customer won Rs 1 crore lottery on digital payment”, available from www.deccanchronicle.com/business/economy/100417/this-is-how-a-bank-customer-won-rs-1-crore-lottery-on-digital-payment.html.
- ⁵⁵ Software Technology Parks of India, available from <https://www.stpi.in/11010I2020S301880I40222>; and the Star Online, “Faster SME growth”, 19 October 2015, available from <http://www.thestar.com.my/business/business-news/2015/10/19/faster-sme-growth/>.
- ⁵⁶ United States Small Business Administration, available from www.sba.gov/starting-business/learn-about-business-laws/online-business-law/collecting-sales-tax-online.
- ⁵⁷ Tech Crunch, “UPS is developing virtual reality tech to train its drivers”, 15 August 2017, available from https://techcrunch.com/2017/08/15/ups-is-developing-virtual-reality-tech-to-train-its-drivers/?utm_medium=TCnewsletter.
- ⁵⁸ Business Insider UK, “Walmart is using virtual reality to train its employees”, 1 June 2017, available from <http://uk.businessinsider.com/walmart-using-virtual-reality-employee-training-2017-6?r=US&IR=T>.
- ⁵⁹ UNCTAD consultations in Greek Campus and with major players in tech entrepreneurship ecosystem, Cairo, March 2016; “Egypt Tech Startup Ecosystem”, World Bank, 2015.
- ⁶⁰ Available from <http://documents.worldbank.org/curated/en/455391472116348902/text/107997-WP-P160311-PUBLIC-ICT-and-the-Education-of-Refugees-final.txt>.
- ⁶¹ UNCTAD Expert Meetings “E-commerce Strategies for Rural Development” and “Entrepreneurs Empowering Entrepreneurs through E-commerce and E-services”, April 2016, Geneva, Switzerland, available from <http://unctad.org/en/pages/MeetingDetails.aspx?meetingid=1097> and <http://unctad.org/en/pages/MeetingDetails.aspx?meetingid=1118>.
- ⁶² Reuters, “Manufacturers in Egypt turn to local sourcing as prices soar”, 27 April 2017, available from <http://www.reuters.com/article/egypt-manufacturing-idUSL8N1HV0A2>.
- ⁶³ OECD 2016 Consumer Protection E-commerce Guidelines.
- ⁶⁴ UNCTAD, 2016 Manual on Consumer Protection, A/RES/70/186 of 22 December 2015: Guideline 4(e) and section F.
- ⁶⁵ Ibid., Guideline 11(c).
- ⁶⁶ Ibid., Guideline 4 (j).
- ⁶⁷ Ibid., Guideline 27.
- ⁶⁸ Ibid., Guideline 31.
- ⁶⁹ Information Technology Industry Development Agency (ITIDA).
- ⁷⁰ See True Garden, available from <https://truegarden.com/pages/about/>; the Times of Israel, “Extracting water from air, Israeli firm looks to quench global thirst”, 16 April 2017, available from <http://www.timesofisrael.com/extracting-water-from-air-israeli-firm-looks-to-quench-global-thirst/>; and the Times of Israel, “Israeli firm
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to provide drinking water — from the air — for India and Vietnam”, 4 April 2017, available from <http://www.timesofisrael.com/israeli-firm-to-provide-drinking-water-from-the-air-for-india-and-vietnam/>.

- ⁷¹ B2B e-commerce is expected to generate revenues and trade volume which exceed BPO-generated B2B e-commerce, which comprises only a part of total B2B e-commerce operations. However, due to the lack of data, the B2B referred to in the strategy goal applies to B2B e-commerce generated through the BPO industry only.
- ⁷² Unstructured Supplementary Service Data is a protocol used by GSM cellular telephone technology which allows users to access various services through the use of short codes. It is used, for example, for the top-up of credit to a mobile phone. The protocol can be used for applications aimed at reaching mobile phone users in rural areas without access to the Internet.
- ⁷³ Nigeria Telecoms Sector: Strategic Imperatives for Service Quality, Dr. Yakub Aliyu and Chris Uwaje, available from www.pressreader.com/nigeria/thisday/20150917/281938836705818.
- ⁷⁴ The megaprojects are covered in detail in the Action Plan for Egypt (unpublished).
- ⁷⁵ Note on the selected indicators: The set of KPI indicators is customized for each country on the basis of the ICTPR Integrated Framework KPI system. For the purposes of simplification, the selected KPIs do not include any indexes. Well-known indexes are referenced directly in the diagnostic report.
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A man with a beard, wearing a yellow shirt, is shown in profile from the chest up. He is holding a white mug in his right hand and a smartphone in his left hand. He is looking out over a cityscape from a high vantage point. The background shows a dense urban area with various buildings and a clear sky. A large blue triangle is overlaid on the left side of the image, containing the text 'ANNEXES'.

ANNEXES

Annex 1: Surveys designed and conducted for strategy development

The following surveys were designed for Egypt for the purposes of conducting the diagnostic for the strategy development, as well as for future monitoring and benchmarking of e-commerce and ICT-related progress in Egypt.

Table 20. Surveys conducted for development of national e-commerce strategy of Egypt

Name of survey	Partner agency	Design period	Data collection period	Number of respondents and coverage	Key indicators
UNCTAD-designed surveys in cooperation with partners					
UNCTAD-MCIT Micro and Small Enterprise Survey on E-commerce in Handicrafts Sector	MCIT	4th quarter 2015	1st quarter 2016 (CAPMAS)	1000 MSEs, all governorates	Access and use of ICTs, e-commerce business use (including social media, e-marketplace use), e-commerce sales, training, main barriers
UNCTAD-World Bank E-commerce Survey on E-payments and Banking Services	World Bank	3rd quarter 2016	4th quarter 2016	4 main banks	Transactions and value of e-payment transactions by payment instrument, e-commerce initiatives, programs for SMEs, fraud, rural-urban services and facilities
UNCTAD-MCIT Survey of IT Clubs	MCIT	4th quarter 2016	4th quarter 2016 (MCIT)	40 IT clubs, several governorates	User characteristics, facilities & equipment, services offered, operational expenses, business model, challenges and opportunities
UNCTAD Customs & Single Window Survey	UNCTAD Asycuda	Asycuda	4th quarter 2016	Egypt Customs Authority	Licenses, permits & certificates, IT systems, trader application processes, data and payment processes
MCIT-designed survey					
MCIT E-commerce Survey of Households and Individuals		1st quarter 2016	3rd quarter 2016 (CAPMAS)	1 000 households, all governorates	Household and individual e-commerce usage and purchases disaggregated by socio-demographic characteristics including age, sex, socio-economic factors, rural vs urban
UNCTAD survey cooperation with UN partner agencies					
UNESCO Survey on ICT and Digital Literacy in Education in Egypt	UNESCO	2015	4th quarter 2016	Ministry of Education, all governorates	Policy and curriculum, expenditures, infrastructure, access and use of computers, student enrollment, teachers in ICT programs
ILO Survey on Women's Entrepreneurship Development in Egypt	ILO	2015	2nd quarter 2016	200 survey interviews with women entrepreneurs	Access and use of ICT and e-commerce among women entrepreneurs

Annex 2: Methodology for measuring national e-commerce in Egypt

The following is the methodology used to measure national e-commerce in Egypt and its potential growth rate:

B2C E-commerce:

B2C E-commerce activities in Egypt were estimated to have reached US\$ 544 million in B2C e-commerce in 2015/2016. This forms approximately 0.4 per cent of the total retail sales, which amounted to US\$ 133 billion according to an AT-Kearney report in 2016. This makes B2C E-commerce's ratio to GDP in the year 2015/2016 equal to 0.2 per cent. Experts estimate that B2C E-commerce activities volume grows by 35 per cent on annual basis.

Performing a forecast for the year 2019/2020, it is estimated that Egypt will realize around 2.367 trillion Egyptian pounds of the country's fixed GDP by this time. This is estimated to be US\$ 127 billion using a pilot dollar price. Applying the estimation that B2C e-commerce trade volume in Egypt will constantly grow by 35 per cent with a steadily increased demand on e-commerce products and services, B2C E-commerce volume can be predicted to be US\$ 1.93 billion and reach a ratio of 1.52 per cent to GDP by the year 2019/2020.

Outsourcing and B2B E-commerce:

In 2015, exports in the IT-enabled outsourcing industry had reached US\$ 1.6 billion broken down by BPO, ITO and KPO. The BPO industry was estimated to be around US\$ 760 million in 2015. The KPO industry amounted to an estimated US\$ 180 million according to local industry experts, and ITO exports were approximately US\$ 660 million. BPO operations use the Internet infrastructure, which classifies it as a form of B2B e-commerce and enables crude estimates. The BPO industry is forecasted to be around US\$ 1.05 billion by 2019/2020, and to reach a ratio of about 0.8 per cent to GDP given the above-mentioned GDP forecast normal growth rate.

By 2019/2020, BPO's B2B E-commerce activities, along with the predicted figure of B2C E-commerce trade volume, can add up to almost US\$ 3 billion, realizing a ratio of 2.35 per cent to GDP.

Given the limited information, it should be noted that the above figures are calculated based on B2B and B2C operations in Egypt, and are subject to change.

Source: Ministry of Communications and Information Technology, Government of Egypt.

Annex 3: List of people consulted and interviewed during UNCTAD missions (2015 and 2016)

Ministry of Communications and Information Technology

- Yasser El Kady, Minister of Communications and Information Technology, Ministry of Communications and Information Technology
- Nagwa El-Shenawi, Undersecretary for Information and Strategic Planning, Ministry of Communications and Information Technology
- Ehab Mostafa, VP Global Trade and Industry Development Group, Information Technology Industry Development Agency (ITIDA), Ministry of Communications and Information Technology
- Mostafa Abolnasr, E-commerce Manager, ITIDA, Ministry of Communications and Information Technology
- Ahmed Yahia Darwish, Local Industry and Partners Development Director, ITIDA, Ministry of Communications and Information Technology
- Mohamed Abdel Wahab, Chairman, Maadi Technology Park, ITIDA, Ministry of Communications and Information Technology
- Hossan Sabbour, Investment and Fundraising Director, Tech Parks, Maadi Technology Park, ITIDA, Ministry of Communications and Information Technology
- Essam Mohamed El Saghir, Chairman, Egypt Post, Ministry of Communications and Information Technology
- Ahmed Salah El Din Ahmed, Vice Chairman for Financial Retail Services & Chief Investment Officer, Egypt Post, Ministry of Communications and Information Technology
- Nancy Badr, Head of International Organizations Unit, Information Centre, Ministry of Communications and Information Technology
- Hedaia Nabil Mahmoud Abd El Ghaffar, Economic Researcher, International Organization Unit, Information Centre, Ministry of Communications and Information Technology
- Ehab El-Araby, Economic Researcher, International Organization Unit, Information Centre, Ministry of Communications and Information Technology
- Emad Mohsen, Public Relations and Media Manager, Smart Village Development and Management Company

National Telecom Regulatory Authority

- Mostafa Abd El Wahed, Acting Executive President, National Telecom Regulatory Authority (NTRA)
- Aly Anis, Executive Director, Societal Interaction, National Telecom Regulatory Authority

Ministry of Trade and Industry

- Fify Awad Mohamed Salem, First Undersecretary, Head of the Egyptian International Trade Point, Ministry of Trade and Industry
- Ashraf Mokhtar, Under Secretary, Head of Central Department of World Trade Organization, Ministry of Trade and Industry, Trade Agreements Sector

General Authority for Investment and Free Zones

- Eman Gamal Said, Under-Secretary Head of the International Cooperative Department, General Authority for Investment and Free Zones (GAFI)
- Mohamed El Biesi, Head of Bedaya Centre for Entrepreneurship & SME Development, GAFI
- Heba Yousry Muhammad Helmy, Economist, Chairman's Office, GAFI
- Ministry of Finance
- Atef Elfeki, Deputy Minister of Finance for IT, Head of GOV-CA, Ministry of Finance
- Mostafa Hefny, IT CIO Deputy, Income Tax Authority, Ministry of Finance

Central Bank of Egypt

- Ahmed Faragallah, Payment Systems Consultant, Central Bank of Egypt

Ministry of Supply and Internal Trade - Consumer Protection Agency

- Atef Amin Yacoub, Chairman of Consumer Protection Agency, Ministry of Supply and Internal Trade
- Amal Ehsan, International Relations Manager, Consumer Protection Agency, Ministry of Supply and Internal Trade
- Ahmed Samir, Executive Director, Consumer Protection Agency, Ministry of Supply and Internal Trade

Egyptian Customs Authority

- Mahmoud Mohamed Eissa Mohamed, Head of the Central Directorate of Policies and Customs Procedures, Egyptian Customs Authority
- Ministry of Planning
- Mostafa Ghaly, Assistant to the Minister, Ministry of Planning
- Ministry for Social Solidarity
- Menass Ibrahim, Assistant General Manager, Head of E-marketing Department, Social Fund for Development
- Yasser Helmy, Minister ICT Advisor Office, Ministry of Social Solidarity

Information Technology Institute

- Heba Saleh, Chairman, Information Technology Institute (ITI)
- Neveen Abd El-Kader, Knowledge Transfer Partnership Program Manager and Business Development, Information Technology Institute

Chamber of Commerce

- Mohamed Azzam, Executive Director, Federation of Egyptian Chambers of Commerce
- Khalil Hassan Khalil, Board Member, Federation of Egyptian Chambers of Commerce

Private sector

- Ashraf M. Fawzy, Debit Cards Products Manager, National Bank of Egypt
 - Mohamed Abd El-Rahman Hassan, E-Commerce Leader, National Bank of Egypt
 - Atef Fouad, Electronic Banking Division Head, National Bank of Egypt
 - Robert Raymond, E-Commerce Manager, Arab African International Bank
 - Mohamed Kamel Bayoumi, Managing Director, Egyptian Banks Company
 - Abdelmoneim Rashwan, Deputy Sr. Sales Manager, e-finance
 - Ahmed Abdrabboh, Director of Acceptance, MasterCard, Egypt
 - Magdy Hassan, General Manager Egypt & North Africa, MasterCard
 - Hazem Hegazy, Chief Executive Officer, Network International Egypt
 - Ashraf Sabry, Founder and CEO, Fawry
 - Ahmed Al Salahy, Regional Manager, Payfort
 - Hesham Safwat, CEO, Jumia
 - Amaury Celier, CEO, Jumia
 - Ahmed Samir, Head of Business Development, Jumia
 - Karim Shehata, Consumer Sales Director, Vodafone Egypt Telecommunications S.A.E.
 - Ahmed Hafez, Managing Director, Wireless Dynamics
 - Amr Gohar, CEO, ECCO Outsourcing
 - Alla El Khishen, ECCO Outsourcing
 - Mohamed Attya, Founder and CEO, EdFa3ly
 - Hazem Amin, Commercial Director, Post Distribution Company
 - Ahmed Farag, Logistics Manager, Post Distribution Company
 - Sayed Mahmoud, Business Development Manager, Microsoft Egypt
 - Mahmoud El Khateeb, Public Sector Director, Microsoft Egypt
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- Ahmed El Salmi, SMB Lead - Senior Channel Sales Manager; Small, Midmarket Solutions and Partners Group, Microsoft Egypt
- Noha Rabie, Executive Director, The Egyptian Center for the Advancement of Science, Technology and Innovation (ECASTI)
- Alaa Adris, Chairman of the Board of Trustees, ECASTI
- Tarek Abdel Rahim, President, Sistrum
- Karim Ghoneim, CEO, KMG
- Ahmed El Alfi, Founder and Chairman, Sawari Ventures
- Hany Al-Sonbaty, Managing Partner, Sawari Ventures
- Sara Enan, Business Analyst, Flat6Labs
- Tarek Ali Taha, CEO, The Greek Campus
- Hanan Abdel Meguid, CEO, Kamelizer
- Sherif Kamel, Professor of Management and Vice President for Information Management, School of Business, American University in Cairo
- Serena McHugh, International Consultant, DoPay
- Ezzeldin Ahmad, Global Sales Consultant, DoPay
- Ahmed Rizk, Manager, Studies and Policy Support Unit, Industrial Modernization Center
- Ahmed Kamal, Research Officer, Studies and Policy Support Unit, Industrial Modernization Center

Vision Workshop Participants (March 2016)

[List of participants available through MCIT, approximately 60 participants.]

EITESAL Meeting Participants (March 2016)

- Mohamed Shedeed, Managing Director, EITESAL
- Amr Gohar, CEO, ECCO; EITESAL Vice Chair and the African IT Alliance
- Alaa El Khishen, Vice President and General Manager, ECCO; Vice Chairman, EITESAL
- Maha Barghout, VP Technology, TEA Computers
- Maged Khalifa, Managing Director, NetWave
- Amr Radwan, General Manager, Namaa for Creative IT Solutions
- Amer Mohie, Business Development Manager, NTG Egypt
- Muhammad Elsesy, CEO, Shourasoft
- Ahmad Nagy, MD, eMarketing Egypt
- Mohammed Saeed, Managing Director, IDT Consulting & Systems
- Mohamed M. Eissa, Marketing Manager, IDS; Business Development Manager, Etisal

Chamber of Commerce Meeting Participants (March 2016)

- Ayman Anwar, Counsel
- Yousef Elma, Systems Manager, Metro Market
- Mamdouh Hassan, Director General, Zahran Market
- Omar Mamdouh, Marketing Manager, Zahran Market
- Youssef Olama, IT Manager, Metro Markets for Trading and Distribution
- Rami Elshahawy, Project Manager, Fathallah Gomla Market
- Ahmed Alsayed, Director of Development, Fathallah Gomla Market
- Amr Mohammed, Systems and Information Manager, Fathallah Gomla Market
- Mahmoud Zada, Managing Director and Member of Board, Alfa International for Trading and Marketing
- Dina Rashad, Executive Coordinator, EMAK For Computer Manufacturing
- Hajer Zaidan, Marketing Specialist, EMAK For Computer Manufacturing
- Walid Hamed, Business Development Officer, The Bank of Egypt
- Ahmed Mohamed, Business Development Manager, The Bank of Egypt
- Mustafa Barout, Director General, BIM Stores
- Islam Ahmed, Sales Manager, BIM Stores
- Khaled Abdul Aziz, Commercial Director, Ragab Sons Company

