



# Cambodia Rapid eTrade Readiness Assessment



## NOTE

Within the UNCTAD Division on Technology and Logistics, the ICT Analysis Section carries out policy-oriented analytical work on the development implications of information and communication technologies (ICTs) and e-commerce. It is responsible for the preparation of the *Information Economy Report* (IER) as well as thematic studies on ICT for Development. The ICT Analysis Section promotes international dialogue on issues related to ICTs for development, and contributes to building developing countries' capacities to measure the information economy and to design and implement relevant policies and legal frameworks. It also monitors the global state of e-commerce legislation ([unctad.org/cyberlawtracker](http://unctad.org/cyberlawtracker)). Since 2016, the ICT Analysis Section coordinates a new multistakeholders' initiative entitled *eTrade For All* which aims to improve the ability of developing countries, and particularly least developed countries, to use and benefit from e-commerce.

This document has been edited externally.

The following symbols have been used in the tables:

**Two dots (..)** indicate that data are not available or are not separately reported. Rows in tables have been omitted in those cases where no data are available for any of the elements in the row;

**A dash (-)** indicates that the item is equal to zero or its value is negligible;

**Reference to “dollars” (USD)** means United States of America dollars, unless otherwise indicated;

**Details and percentages** in tables do not necessarily add up to the totals because of rounding.

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## PREFACE

The eTrade for All initiative, launched at the fourteenth Ministerial Conference of UNCTAD in July 2016, is a practical example of how to harness the digital economy in support of the 2030 Agenda for Sustainable Development, notably Sustainable Development Goals (SDGs) 5, 8, 9 and 17. The initiative seeks to raise awareness, enhance synergies and increase the scale of existing and new efforts by the development community to strengthen the ability of developing countries to engage in and benefit from e-commerce by addressing seven relevant policy areas:

- E-commerce readiness assessment and strategy formulation
- ICT infrastructure and services
- Trade logistics and trade facilitation
- Payment solutions
- Legal and regulatory frameworks
- E-commerce skills development
- Access to financing

As part of the initiative, demand-driven assessments are envisaged to provide a basic analysis of the current e-commerce situation in the countries concerned, and to identify opportunities and barriers. The resulting reports will serve as valuable inputs to these countries' involvement in various discussions related to e-commerce and digital trade, such as in the WTO Work Programme on E-Commerce and the new UNCTAD Intergovernmental Expert Group on E-Commerce and the Digital Economy. It may furthermore help LDCs to identify areas in which they could benefit by assistance from partners of eTrade for All.

The first e-Trade Readiness assessment was conducted in Cambodia in November-December 2016. I would like to express my sincere appreciation to His Excellency Pan Sorasak, Minister, Ministry of Commerce, Royal Government of Cambodia, for his relentless dedication to e-commerce development in Cambodia for the past 20 years and for his personal support for eTrade for All. Also, I would like to express my sincere appreciation to all those who have contributed to this assessment. Let me assure of UNCTAD's commitment to continue support of Cambodia in the development of e-commerce.

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The views expressed in this report are those of the consultant and do not necessarily reflect the views of UNCTAD or the Royal Government of Cambodia.

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## GLOSSARY OF TECHNICAL TERMS AND ABBREVIATIONS

<b>3G</b>	3 <sup>rd</sup> Generation of wireless mobile telecommunications technology
<b>4G</b>	4 <sup>th</sup> Generation of wireless mobile telecommunications technology
<b>ADB</b>	Asian Development Bank
<b>AEC</b>	ASEAN Economic Community
<b>APAC</b>	Asia Pacific
<b>API</b>	Application Programme Interface
<b>ASEAN</b>	Association of Southeast Asian Nations
<b>ATM</b>	Automatic Teller Machine
<b>BPO</b>	Business Process Outsourcing
<b>BritCham</b>	British Chamber of Commerce (in Cambodia)
<b>DP</b>	Development Partner
<b>EuroCham</b>	European Chamber of Commerce (in Cambodia)
<b>ICT</b>	Information and Communication Technology
<b>ICTF</b>	ICT Federation of Cambodia
<b>IT</b>	Information Technology
<b>ITU</b>	International Telecommunications Union
<b>MCFA</b>	Ministry of Culture and Fine Arts
<b>MFI</b>	Micro Finance Institution
<b>MOC</b>	Ministry of Commerce
<b>MOIH</b>	Ministry of Industry and Handicrafts
<b>MPTC</b>	Ministry of Posts and Telecommunications
<b>MSME</b>	Micro, Small and Medium Enterprises
<b>NBC</b>	National Bank of Cambodia
<b>NiDA</b>	National ICT Development Authority
<b>NIPTICT</b>	National Institute of Posts, Telecommunications and ICT
<b>POS</b>	Point of Sale
<b>TPP</b>	Third Party Processor
<b>UNCTAD</b>	United Nations Conference on Trade and Development
<b>UPU</b>	Universal Postal Union
<b>WEF</b>	World Economic Forum



## EXECUTIVE SUMMARY

The potential for e-commerce development is significant in Cambodia, promising to diversify the economy, provide new jobs, and increase financial inclusion, as well as contributing to improved lives and livelihoods.

Cambodia is in a stage of development in which e-commerce is becoming visible, with an IT-hungry urban middle class that has emerged over the past 10 years, and with 60 per cent of the population below the age of 25. Consumers prefer traditional markets or retail stores and the financial market still relies on cash. The demand for e-commerce is currently limited to products that customers cannot find through regular retail outlets.

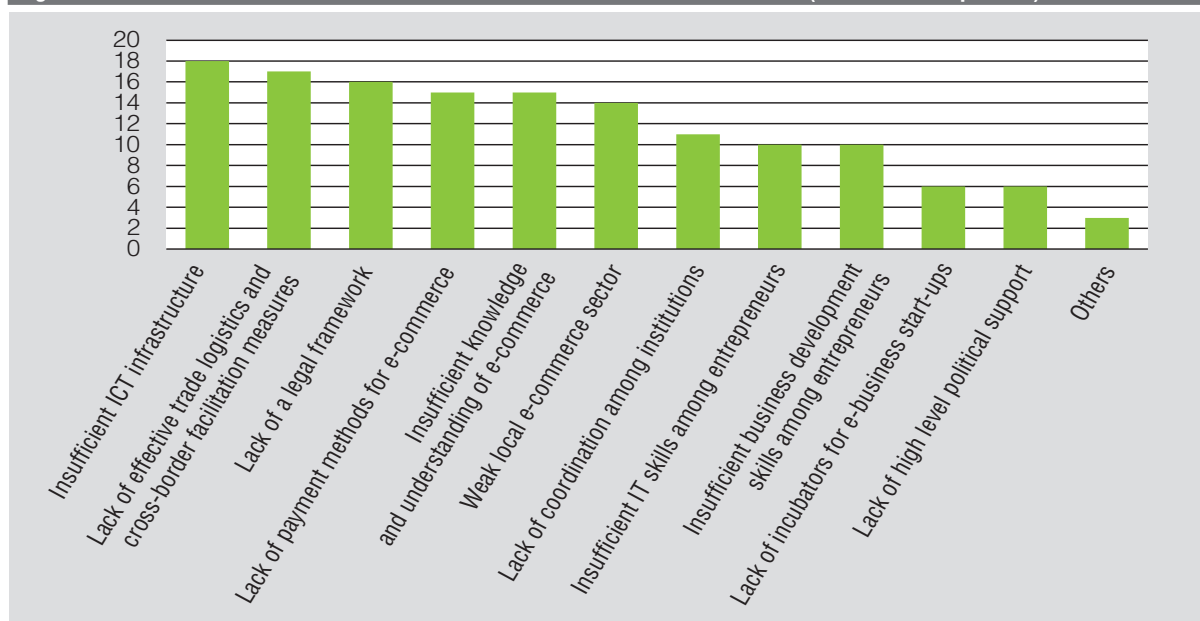
There is nonetheless a real opportunity in Cambodia for small entrepreneurs buying products overseas to sell them online, mainly through Facebook or Instagram platforms. There is already a potential clientele of some 15,000 consumers for most current e-commerce ventures.

The transformation of Cambodia into a digital economy is advancing with rapid improvements in Internet accessibility and affordability. The Ministry of Posts and Telecommunications expects the

number of citizens with regular Internet access to almost double to 9.5 million by 2020 (60 per cent of the population). Cambodia has considerable advantages that could be leveraged to create ICT jobs and benefit the national economy, such as the highest rate of Internet connectivity growth in the Asia-Pacific region and a very young population. Over the coming years, enhanced connectivity will continue to create new opportunities and online platforms for Cambodian businesses to reach customers. If effectively harnessed, these opportunities can significantly improve financial performance and contribute to economic growth and sustainable development.

E-commerce, however, remains limited compared to other ASEAN countries, and the potential for export development is relatively low. Despite recent progress, Cambodia ranked only 119 out of 137 in the UNCTAD B2C e-commerce index 2016. A relatively small market size, low broadband Internet penetration (especially in rural areas), payment issues and poor logistics networks are cited as stumbling blocks to e-commerce development in questionnaires and interviews.

**Figure 1. Main bottlenecks for the effective use of e-commerce in Cambodia (number of responses)**



Source: UNCTAD



Going further, the eTrade readiness assessment conducted with key stakeholders confirmed that barriers to further e-commerce development include: (1) confusion within and between relevant government agencies and public institutions over priorities and implementation processes; (2) technical factors, including accessibility and affordability of broadband Internet infrastructure, the digital divide between cities and the countryside;

limited access to financial services, and logistical challenges related to the delivery of goods; (3) trust factors, i.e. moving from a cash to a cashless society, building consumer trust in online platforms and mobile payment solutions; (4) unclear legal and regulatory framework; and (5) focus on copying existing platforms for quick return rather than on innovating or investing in new skills and knowledge to bridge a persistent market mismatch.

## Summary statistics



Population of Cambodia 2016:  
**15.4 million**



Mobile phone subscribers:  
**20.5 million**  
Cambodia is a “mobile first” market, where most Cambodians go online via their mobile device.  
(Source: MPTC, 2016).



Registered fixed-line Internet subscribers:  
**82,926** as of June 2016, compared to more than 7 million mobile Internet subscribers  
(Source: MPTC, 2016).



Rapid adoption of smartphones, estimated at  
**50%** of smartphones in 2015  
(Source: MPTC, 2016)



The majority of Cambodians are unbanked:  
**22%** of Cambodians had bank accounts in 2014,  
**39,000** possessed credit cards, and 1.5 million people – or **10%** of the population – had bank cards.  
(Source: World Bank, 2015)



**The vast majority** of e-commerce transactions are for imports or domestic trade. While there are no statistics available on foreign eTrade volume, online exports are limited to tourism and handicrafts (including through the Government-led e-visa system)



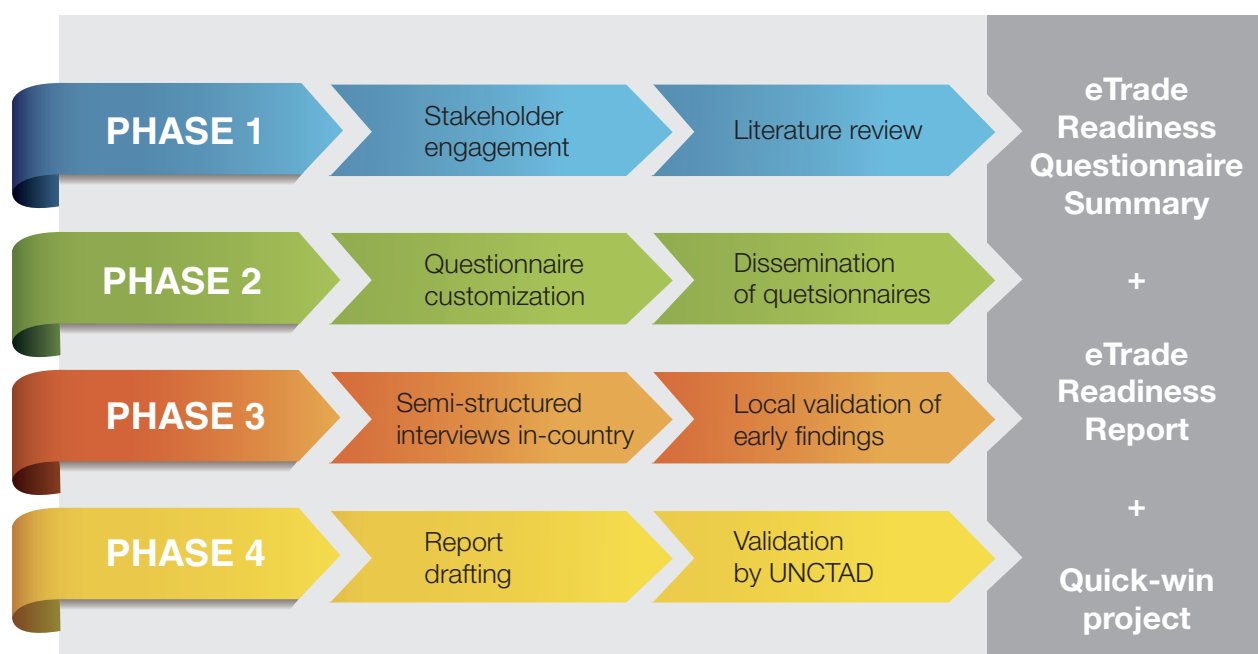
**99%** of the online population uses Facebook.  
(Source: TNS Kandara, 2016)





## METHODOLOGY

Figure 2. Survey methodology



A four-step approach was used for the eTrade readiness assessment in Cambodia, to ensure a high level of participation and engagement of key stakeholders in the consultative process as per below.

Two parallel tracks were used to ensure a high level of participation and increased awareness of both the eTrade for All initiative and e-commerce in general. In both tracks, a questionnaire designed by UNCTAD was used as a basis for semi-structured interviews:

• **“Public sector track”:**

The Ministry of Commerce, following the participation of HE Pan Sorasak, Minister of Commerce, in the launch of the eTrade For All initiative during UNCTAD 14 (Nairobi, Kenya, 18 July 2016) and proposal for Cambodia to be a pilot country, took the lead to ensure questionnaires were distributed among Government agencies (Ministry of Commerce, Ministry of Posts and Telecommunications, Ministry of Economy and Finance, National ICT Development Agency and National Bank of Cambodia). The main findings of the eTrade readiness assessment will be presented during the 2017 first quarterly meeting of Cambodian Sub-Steering Committee on Trade

Development and Trade Related Investment chaired by the Minister of Commerce.

• **“Private sector track”:**

The ICT Federation of Cambodia (<http://www.ictfederation.org/>) hosted a breakfast meeting on 7 November to take relevant members through the eTrade for All assessment questionnaire and raise awareness about the initiative. Subsequently, the ICTF facilitated the dissemination of the questionnaire within its membership. Inputs shared by the e-commerce Commission of the British Chamber of Commerce in Cambodia - BritCham (<http://britchamcambodia.org/>) provided up-to-date data on market development

The information provided in this report is based on 22 responses to the questionnaire—18 from the private sector, four from Government institutions—some of them complemented by face-to-face interviews held between 7 November and 10 December 2016. The study benefited from primary data collected using responses to questionnaires and secondary data provided by the Mekong Business Initiative (MBI/ADB), Asia, the World Bank, TNS Kandar, the National Bank of Cambodia and the Ministry of Posts and Telecommunications.



## SUMMARY OF FINDINGS AND RECOMMENDATIONS

Table I. Summary of findings and recommendations

MAIN FINDINGS	MAIN RECOMMENDATIONS
<b>e-Commerce Strategies</b>	
Several parallel and uncoordinated initiatives developed by both the Government and the private sector alike exist to accelerate development of e-commerce in Cambodia	Develop an e-commerce strategy for Cambodia spearheaded by the Ministry of Commerce with strong private sector involvement.
<b>ICT Infrastructure and Services</b>	
Very high mobile Internet penetration fueling the development of mobile solutions while access to electricity and broadband Internet, in particular in the provinces remains challenging.	Promote investment in broadband Internet in particular in the provinces, support to lower the costs of electricity.
<b>Trade Logistics and Trade Facilitation</b>	
Logistics players entering the complex, mostly urban market, competing with local Micro, small and medium enterprises (MSMEs) for “last mile” delivery, while improvements are being made aligning Cambodia trade facilitation with regional standards and international best practices.	Support implementation of Trade Facilitation Agreements (TFA) with conducive regulation for clearance of small shipments (import and export), increase findability of addresses.
<b>Payment Solutions</b>	
Cash economy culture making it hard for mobile payments and cashless solutions to be launched, made difficult by the absence of a comprehensive e-payment gateway (in 2016).	Accompany the development of industry-wide solutions and promote acceptance of mobile payments solutions among consumers and merchants alike.
<b>Legal and Regulatory Framework</b>	
Progress towards an enabling legal environment is tangible in the ICT and infrastructure fields but remains patchy for e-commerce and e-payment, leading to conservative investment decisions by major e-commerce players	Carry out a review of existing and still missing ICT-and e-commerce related laws. Enact the much-awaited e-commerce law as soon as possible.
<b>e-Commerce Skills Development</b>	
Innovative micro-entrepreneurs “learning by doing” approach compensates for the absence of dedicated e-commerce curriculum in universities or professional training courses for the private sector	Empower and strengthen sector association in the areas of ICT and e-commerce to bridge the gaps between MSMEs needs and current education and training offered on ICT and e-commerce
<b>Access to Financing</b>	
Very high interest rates, requests for tangible assets and a lack of trust in ‘online ventures’ diminish the enthusiasm of MSMEs for developing online portals and mobile solutions. Alternative individual and collective solutions exist but their development is nascent in Cambodia	Support business associations to encourage and help members to improve the credibility and bankability of their business plans and loan requests. Help banks develop innovative products for MSMEs investing in the e-economy

Source: UNCTAD



## FINDINGS UNDER THE SEVEN eTRADE FOR ALL POLICY AREAS

### 1. E-COMMERCE READINESS ASSESSMENTS AND STRATEGY FORMULATION

Cambodia has not developed an ICT or an e-commerce strategy yet. However, some directions and measures to promote e-commerce were included in the National Strategy Development Plan 2014-2018. The Telecommunication and ICT Development Policy 2020 was adopted in 2016, and the Cambodia ICT Master Plan 2020 was adopted in 2014 (both available at: <http://www.mptc.gov.kh>).

At the regional level, ASEAN has launched the 'ASEAN ICT Masterplan 2015,' to help ICT become a key enabler for ASEAN's social and economic integration. Each ASEAN Member State needs to incorporate and adopt a national version of the ASEAN ICT Master Plan, which Cambodia did in 2014. While the Ministry of Commerce is the lead ministry for services negotiations under the ASEAN Framework Agreement on Services, the Ministry of Posts and Telecommunications is responsible for telecommunications-related negotiations (aimed at accelerating services trade liberalization under the ASEAN Economic Community–AEC-blueprint).

The Ministry of Posts and Telecommunications has the objective of promoting the e-Economy and e-Services in Cambodia in three parts:

- **First**, legislation and policy making for online business are made. Online payment methods are developed for online business. As a prerequisite for e-commerce, a robust nationwide postal system is established. Based on the new postal system, major logistics and retail distribution companies lead the market.
- **Second**, the economic population acknowledges e-banking and its services and holds at least one financial account which realizes e-banking. Thus, the total amount on e-banking transactions exceeds the total amount on over-the-counter transactions.
- **Third**, all organizations in tourism sectors operate own homepages to provide their services such as related information, reservation and issuance of tickets. ICT systems are applied to tour industry to result in doubling the number of the tourists and travelers. As an objective, personally specialized

products and services in tourism are developed and served."

### 2. ICT INFRASTRUCTURE AND SERVICES

The results of the questionnaire illustrated the need for Internet accessibility and affordability as well as broadband development (Table II).

**Table II. Snapshot of most important issues, ICT infrastructure and services, top three responses**

Issue (by order of importance with 1 indicating "least important" and 5 "most important")	How important is it to improve this issue?	How important would it be to receive technical assistance in this area?
Increase usage of Internet	4.8	4.1
Reduce cost of Internet use	4.1	3.8
Invest in broadband deployment	4.2	3.5

Source: UNCTAD

Public and private investment in ICT infrastructure enabled Cambodia to bridge part of the digital gap in the country. Milestones include:

- Rapid adoption of Smartphones, estimated at 50 per cent of phones and growing
- Widely available 3G network, and some 4G, with more growth planned
- Inexpensive mobile data plans in both postpaid and prepaid contracts
- Further infrastructure company - investment in the Cambodian market

Data collected in September 2015<sup>2</sup> showed that the Cambodian phone market is already saturated, with over 94 per cent of people claiming to own their own phone, and more than 99 per cent being reachable by some sort of phone. The share of citizens using more than one phone was only 13 per cent, while one Cambodian in four used more than one operator.

According to the same study, 63 per cent of Cambodians owned phones with Khmer script capability. The use of such phones is more common



among men (68 per cent) than women (49 per cent) and more common in urban areas (67 per cent) than rural ones (62 per cent). Some 40 per cent of users had at least one smartphone. The ability of phones to display Khmer is more common in smartphones (78 per cent) than in dumb phones (56 per cent). The capability of smartphone users to display Khmer improved with education level of their owner. Almost a third of Cambodians had access to the Internet and Facebook, and most people in this group had a Facebook account.

Smartphones are by far the most common means of accessing Facebook; only 3 per cent of users accessed the social media site solely through a computer, while 80 per cent did so exclusively through a phone. Internet/Facebook use has risen to become in 2015 the second most important channel for Cambodians to access information—trailing only TV (30 per cent vs 24 per cent)—having surpassed radio (20 per cent) and continuing to gain market share<sup>3</sup>.

While sufficient infrastructure exists within Cambodia to allow for basic e-commerce functions, additional capacity is needed. According to the World Bank<sup>4</sup>, Cambodia's ICT infrastructure and connectivity lag behind other countries in Asia. Broadband connectivity, in particular, has seen little progress, especially when compared to neighboring countries, thus reducing Cambodia's attractiveness for investors in modern services industries. The World Bank recommended that Cambodia give priority to ensuring better telecommunications infrastructure, establishing a country-wide broadband strategy and reducing regulatory and de facto limitations on foreign investment in communications. The high cost of electricity has been repeatedly highlighted as a key barrier to investment in services development in general and for ICT infrastructure providers<sup>5</sup>.

### 3. TRADE LOGISTICS AND TRADE FACILITATION

The questionnaire results showed that it was important to a) improve the transparency of procedures and duties on e-commerce websites, b) make e-payment possible for customs and c) facilitate the rolling out of single windows (Table III).

**Table III. Snapshot of most important issues, trade logistics and trade facilitation, top three responses**

Issue (by order of importance) with 1 indicating "least important" and 5 "most important"	How important is it to improve this issue?	How important would it be to receive technical assistance in this area?
Fully transparent procedures and duties via websites and enquiry points	5.00	5.00
Possibility of making electronic payments for customs	4.75	4.62
Single Window to enable cross-border traders to submit regulatory documents at a single location and/or single entity.	4.50	4.50

Source: UNCTAD

Logistics are a challenge in Cambodia. Delivery is often inefficient and expensive. There are numerous logistics companies in the country, from long time installed companies such as DHL to the most recent Kerry Worldbridge Logistics to local delivery services, such as Camgo. The services provided by these companies partly compensate for the lack of an efficient postal service.

While Cambodia is a member of the Universal Postal Union (UPU) and has embraced the principles of Universal Service, the postal service is underdeveloped and most MSMEs and individuals use alternative mail delivery systems (postboxes, including private ones, small local providers, private individuals delivering parcels). It can take weeks for an item to arrive from abroad and without a computerized system, recipients often must look up their package by country of origin in handwritten notebooks. Sometimes their arrival is accompanied by surprise customs fees. This is also because addresses do not always follow a logical sequence in cities, making it difficult to send parcels to home addresses. Cambodia Post (<http://cambodiapost.post/>), an autonomous entity, has a monopoly and has reserved services over postal services, including express mail services for items up to 500 grams. Yet, the postal market has been liberalized and the international express market is highly competitive.

The UPU has developed the Postal E-Services (PES) index to assess the readiness of 87 member states for e-commerce<sup>8</sup>.



- PES 1 is based on an expert assessment of e-services that are currently being provided and how e-services strategies are applied in general and in specific sectors such as e-post, e-government, e-commerce, digital financial and payment solutions and support services. A ‘yes’ response to any given service is assigned a value of 1, ‘no’ responses were assigned 0 (zero), and ‘under development’ responses were assigned 0.5 **Cambodia scored 0.16 and ranked 66th among the 87 countries.**

- PES 2 (External Environment Index) is based on an assessment of indicators that reflect the external (technological, legal/regulatory, market/competitive environment) forces that shape the Post’s ability to enter postal e-markets and to gain a substantial market share: barriers to entry, drivers. It is based on external indicators such as the Telecommunications Infrastructure Index (TII) developed by United Nations Public Administration Network (UNPAN)– [Internet user + telephone line + mobile subscription + wireless broadband subscription + fixed broadband] and data gathered in the assessment. **Cambodia scored 0.49 and ranked 48th among 87 countries.**

Logistics in Cambodia involve a complex web of interconnected companies, and even the largest logistics businesses rely on local MSMEs for “last mile” delivery. Some companies are asset-based, (trucks, warehouses), while others offer expertise in coordination, clearance and paperwork. Most trucking companies are small, family owned businesses. Major logistics companies such as Kerry Logistics work with them.

Micro-entrepreneurs selling goods online handle almost all deliveries in-house, with “last mile” delivery and address-finding performed by local agents. Finding an address, and “last mile” delivery of purchased goods, present significant costs and challenges– especially for smaller merchants.

**4. PAYMENT SOLUTIONS**

The results of the questionnaire stressed that the priority areas in this field were building capacity on security and trust for all stakeholders and ensuring that regulations are in place to allow for mobile payment and consumer protection (see Table IV).

**Table IV. Snapshot of most important issues, payment solutions, top three responses**

Issue (by order of importance) with 1 indicating “least important” and 5 “most important”	How important is it to improve this issue?	How important would it be to receive technical assistance in this area?
Educational initiatives on security and trust building e.g. for policymakers, banks, merchants and consumers	4.75	4.75
Clear and interoperable consumer protection regulation	4.62	4.62
Regulations that allow for mobile payments	4.75	4.33

Source: UNCTAD

The National Bank of Cambodia (NBC) states that, though electronic payments in Cambodia are deemed to be at an early stage, they have grown rapidly in the past three years. In particular, Internet banking/mobile banking and mobile payment services offer consumers better access to their funds and facilitate real-time trade transactions.

The National Bank of Cambodia (NBC) states that, though electronic payments in Cambodia are deemed to be at an early stage, they have grown rapidly in the past three years. In particular, Internet banking/mobile banking and mobile payment services offer consumers better access to their funds and facilitate real-time trade transactions. According to NBC data, a total of 1.43 million debit cards were issued by local banks as of end-2015, with 1,118 ATMs and 9,639 POS machines nationwide. In addition, there were nearly 300 ATMs belonging to microfinance institutions (MDIs).

Cambodia is still a cash-based culture, and many Cambodians have little trust in online transactions or in financial institutions. Few Cambodians have a bank account, let alone a credit card, or debit card (Table V). The absence of large legacy banking systems, a predominantly unbanked or underbanked population that is highly digitally engaged, and the absence of a perceived need to use electronic funds because everything is



available for COD explain the current underuse of electronic payments. Banks do not have the resources to assist merchants in gaining access to their payment gateways. As a consequence, almost all transactions are settled with cash-on-delivery, which raises concerns about security and the cost of handling cash. Many Cambodians use point-to-point remittance services provided by a specialized bank (see Annex 4)– to make payments; but even so, these cashless payments require cash top-ups at a physical agent location.

**Table V. Key banking data**

Commercial banks	36
Specialized banks	12
Bank offices nationwide	614
ATM	1,118
POS	9,639
MFI	58
Debit and ATM cards	1.43 million
Credit Cards	39,000
M1 cash (in circulation)	US\$ 1.53 billion
Total deposit by individuals	US\$ 6.5 billion
Quasi-money	US\$ 12 billion
Estimated electronic cash accessible	US\$ 2.54 billion

Source: NBC, 2016

Interviews conducted for this assessment showed that MSMEs in Cambodia are typically comfortable with being 100 per cent cash based and feel little need to change. They lack an understanding of banking services and are intimidated by the required paperwork. They do not have an IT department and do not understand the need for one. Many do not practice standard accounting and do not have any of their business information online. This lack of accurate business records makes it easier to avoid taxes. They consider fees for cashless transactions to be too high. They need education on the non-balance-sheet costs of using cash, such as security, which is not taken into account. They have a tight cash flow and do not want to wait until the end of the month to receive money for sales.<sup>9</sup>

Merchants who are ready to accept cashless payments find it expensive and difficult to do so because there are so many options, which are not interoperable. Merchants need a different POS for

each payment option they offer. They need backend integration for each service, so if they want to work with Wing, SmartLuy, eMoney, TrueMoney, and PayGo they need to work with each service provider individually, and separately manage the resulting transactions.

Despite all of this, the dramatic increase in the use of ATM cards and money transfer services reported by a majority of interviewees indicate changes in the way people use banking services and are becoming more prone to understand the significance of electronic money.

Additional bottlenecks include<sup>10</sup>

- Transactions like cash deposit, POS payments are only available in US\$
- Cards are mainly used for cash withdrawal at ATMs, rather than for purchase on POS.
- There is no shared national switch<sup>11</sup> for card-based electronic payments. Only ACLEDA Bank is offering an application programming interface (API) to access bank deposits via ATM or debit cards, with significant technical challenges to access the API
- No other major bank offers access to deposit accounts via debit cards
- Significant cost (>3 per cent)) and risks for credit card processing

On a positive note, the NBC announced in December 2016 that it will launch a new system to connect the account records of all local financial institutions' ATM and POS machines, allowing interoperability and making it easier for bank customers to access their funds. The new system will connect all the ATMs and POS machines of local bank and deposit-taking MDIs to a centrally shared switch maintained by the NBC.

Currently, each local bank and deposit-taking MDI operates its own network of ATMs and POS machines. While there is some interoperability, such as ATMs linked by VISA's Plus interbank network, customers generally cannot use a debit card issued by one bank to pay for goods or services from a merchant using the POS of another bank.

NBC's centrally shared switch system is scheduled to be launched with a few participating banks in mid-2017. All banks and MDIs would be required to sign on by 1 January, 2018.



## 5. LEGAL AND REGULATORY FRAMEWORKS

Despite increased number of subscribers in the telecommunications market, Cambodia is still vulnerable in terms of laws and regulations that have a great impact on long-term market growth and social development. The World Economic Forum's Networked Readiness index<sup>12</sup> ranked Cambodia at 118th of 133 countries with regard to laws relating to ICT in 2010. Its ranking moved up and finally reached 109 out of 139 in 2015. However, the ranking would have been significantly higher if a number of acts, such as the draft Telecommunications Law, the draft E-Commerce Law and the draft Cybercrime law had been enacted. Cambodia's e-commerce currently operates under a law passed in 1996 that mainly deals with postal services.

Survey respondents identified the most important legal areas for e-commerce uptake as the protection of consumers online, intellectual property and privacy (Table VI).

**Table VI. Snapshot of most important issues, legal and regulatory frameworks, top three responses**

Issue (by order of importance) with 1 indicating "least important" and 5 "most important"	How important is it to improve this issue?	How important would it be to receive technical assistance in this area?
Consumer protection online	4.70	4.40
Online IP law	4.40	4.40
Protection of data and privacy	4.20	4.20

Source: UNCTAD

## 6. E-COMMERCE SKILLS DEVELOPMENT

Several interviewees commented that the lack of trained IT and ICT services professional was slowing the development of e-commerce in Cambodia. Although there are increasing numbers of graduates in the IT field, there is a lack of hands-on practical training. Many suggested that instructors are not up-to-date on the latest technology and cannot train their students.

Adapting the existing education and training programmes on ICT and e-commerce is the way

forward according to the questionnaire results shown in the Table VII below.

**Table VII. Snapshot of most important issues, e-commerce skills development, top three responses**

Issue (by order of importance) with 1 indicating "least important" and 5 "most important"	How important is it to improve this issue?	How important would it be to receive technical assistance in this area?
Improving existing education and training programmes on ICT and e-commerce in Universities and Business schools	4.87	4.87
Promote University-Industry linkages to develop e-commerce curriculum / research / innovation.	4.75	4.75
Develop higher level education curricula on eTrade	4.75	4.75

Source: UNCTAD

IT and ICT skills are acquired through regular engineering careers (Institut de Technologie du Cambodge and the National Institute of Posts, Telecommunications and ICT, NIPTICT) or on the job training provided to new employees, in particular in Business Process Outsourcing (BPO) services, 3D animations and website development. Companies that are committed to sophisticated IT Departments have learned that they need to offer training to develop the required talent. The first three-year university programme entirely dedicated to e-commerce was launched in 2016 by the new National Institute of Posts, Telecommunications and ICT (NIPTICT), a public institution under the Ministry of Posts and Telecommunications. As described below, most "online portals" are actually improved Facebook pages for which advanced IT skills are not necessary.

In order to expand the supply of ICT human resources quantitatively as well as qualitatively, the Government plans to establish regional and sub-national ICT training centers in Phnom Penh as well as in the provinces.



The general population's understanding and the level of e-awareness of e-commerce are very low, with reasons given by respondents ranging from 'very low ICT usage', 'lack of institutional support for e-awareness', 'lack of sufficient resources for e-awareness', 'difficulties in promoting e-awareness in Cambodia', and 'lack of clear strategy or roadmap for the promotion of e-awareness' among Government authorities. Yet, with more than 60% of the population under 25, this is likely to change. Consumers are shopping more online, especially young people, and teaching their parents to be more comfortable with the activity. Young consumers are looking to the Internet for information about products to buy but also on trends in other ASEAN countries and beyond.

The Government's vision for e-awareness was set to achieve the ambitious goal that most Cambodian people would be able to access and use digital (online) information. A tangible policy goal is that, 70 per cent of Cambodians will be able to access the Internet by 2020.

The Royal Government of Cambodia is promoting adoption of e-services and e-payment by automating and moving key trade and business related procedures online. In 2015, several initiatives were started, such as moving all public-facing registration and taxation payment systems online, through an e-government initiative that promises to reduce the collection of "unofficial fees" and increase consumer use of cashless payments.

In automating key trade procedures, major obstacles include lack of skills and e-awareness, resistance from public officials, and conflicts within and between relevant government agencies and public institutions over priorities and implementation processes.

Finally, a constraint mentioned in several interviews is the lack of local-language terminology for many of the concepts and terms involved in e-commerce, together with the requirement that contracts, customs forms and tax invoices be provided in the local language (Khmer).

## 7. ACCESS TO FINANCING

Access to finance for MSMEs in general, and for MSMEs involved in ICT and e-commerce in particular, is among the top issues affecting

business development in Cambodia, as highlighted in recent Doing Business reports<sup>13</sup> by the World Bank. Despite the lack of formal training in ICT, Cambodia has a nascent number of mid-sized online shopping portals developed locally, such as LittleFashion (<http://www.l192.com/>), Shop168 (<http://shop168.com.kh/>) and Khmer24 (<https://www.khmer24.com/>).

The questionnaire results confirmed this priority as shown in Table VIII, together with stressing the need to share lessons learnt on issues related to access to financing for e-commerce and to creating an enabling investment climate for e-commerce.

**Table VIII. Snapshot of most important issues, access to financing, top three responses**

Issue (by order of importance with 1 indicating "least important" and 5 "most important")	How important is it to improve this issue?	How important would it be to receive technical assistance in this area?
Promoting and facilitating access to finance for e-commerce start-ups	4.87	5.00
Promoting peer-learning and experience sharing on issues related to access to financing for e-commerce	4.75	4.62
Creating an enabling investment climate for e-commerce	4.75	4.62

Source: UNCTAD

Key factors affecting access to financing for MSMEs are:

- High degree of informality among Cambodian MSMEs, especially in the ICT sector (in particular for Instagram and Facebook-based businesses)
- Financial systems in ASEAN economies, including in Cambodia, are dominated by a few commercial banks. Banks in Cambodia typically undertake more certain and profitable lending to consumers and big firms. Accordingly, MSMEs continue to rely on internal sources—their own savings,





moneylenders, and non-bank instruments—for most of their financial needs.

- Commercial banks lend little to MSMEs, partly because many are not designed to do so or do not know how to properly evaluate the working capital requirements of MSMEs and their investment projects.
- Lack of association and cluster mentality in Cambodia, making MSMEs approach banks in isolation from other actors in the business with reduced bargaining power.
- Low financial literacy and accountability among MSMEs: Commercial banks require sound business and financial plans that many MSMEs lack the capacity to prepare. MSMEs use a single-

entry accounting system, while banks expect to see something more sophisticated.

- Lack of independent market institutions capable of rating MSME credit worthiness, although the recently launched Credit Bureau of Cambodia is a useful way forward.

As a result, most MSMEs do not have access to lines of credit that would allow them to invest in their infrastructure and in e-commerce operations to expand their business. In addition, few ICT companies in Cambodia look beyond the Cambodian market and do not consider exports, limiting their growth potential. This makes it difficult for these companies to get funding for growth, as potential market size is limited to the population of Cambodia.

## CONCLUSION

A dynamic and open economy, a very high mobile telephony penetration, and a young and dynamic population are key ingredients that are transforming Cambodia into an innovative marketplace for e-commerce. Cambodians are adopting e-commerce, as consumers, merchants and government. E-commerce is a very promising sector for a country in dire need of economic diversification, currently evidenced by the effort to become a services economy.

The Royal Government of Cambodia has spearheaded numerous business-friendly legal and regulatory reforms over the past 15 years that enabled the birth of an e-commerce ecosystem. The legal framework is still unfinished, however. Several important legal tools are still missing, starting with the much-awaited e-commerce law. In parallel to this Government-led evolution, the private sector, mostly MSMEs, has been able to develop a small e-commerce domestic market targeting both

businesses and consumers, almost exclusively for local consumers. The perceived absence of a robust legal enabling environment has limited the foreign direct investment in the sector and resulted in an insignificant contribution to Cambodia's trade development.

Obstacles to the e-commerce revolution are listed in the report. This assessment identifies many barriers and provides a number of short-to-medium term actions (see action matrix in "The Way Forward") to support and accelerate e-commerce adoption in the Royal Government of Cambodia

The actions listed call for dedicated support from the eTrade for All partners and other organizations, in particular for actions in e-commerce strategy, legal and regulatory framework, infrastructure, and access to finance. Actions might potentially also include *Business for e-Trade Development* members in areas such as e-payment, logistics, skills and knowledge.



## THE WAY FORWARD: ACTION MATRIX

Opportunities for eTrade for All partners to support e-commerce development along the seven eTrade for All policy areas are based on analysis of suggestions received in 22 interviews and questionnaires, including with Government counterparts. The matrix should be seen as a preliminary assessment.

E-COMMERCE STRATEGY			
Activity	Expected outputs	Priority Level	Support potentially by
Support e-commerce law adoption and implementation, build awareness of its contents	Increased confidence for foreign e-commerce players to invest in Cambodia, stable and complete e-commerce ecosystem	H	UNCTAD, KOICA
Review the legal and regulatory framework for e-commerce	Avoid duplication and increase synergies among legal instruments	H	UNCTAD, UNCITRAL
Implement existing Telecommunications and ICT Development Policy 2020 and Cambodia ICT Master Plan 2020	Robust infrastructure and strategy in place for smooth e-commerce development nationwide	M	ITU, WB, UNESCAP
Develop a national e-commerce strategy	Provide a roadmap for e-commerce development ensuring coherence and alignment of actions among public, private sectors and development partners	M	UNCTAD
Enhance the capacity of the ICT Federation of Cambodia to provide services to its members	The ICT Federation plays a stronger role representing the ICT sector in dialogue with Government agencies	M	ITC
Include e-commerce in trade promotion activities	Make e-commerce an effective contributor to exports of Cambodian products and services	L	ITC

ICT INFRASTRUCTURE AND SERVICES			
Activity	Expected outputs	Priority Level	Support potentially by
Lower costs, improve access to, and capacity of IT infrastructure	Better connection, reliability and security of online purchases, electronic payments	M	ADB, JICA, KOICA, WB, ITU, UNESCAP
Work to lower electricity costs for businesses, especially MSMEs	Investment in ICT infrastructure are encouraged	M	JICA, China, WB
Increase usage of Internet in the provinces, in particular broadband Internet	Bridge the digital divide between main cities and provincial towns	M	JICA, KOICA, WB

TRADE LOGISTICS AND TRADE FACILITATION			
Activity	Expected outputs	Priority Level	Support potentially by
Improve delivery efficiency and “findability” of address locations	Reduced delivery time, improved logistics	H	UPU, B4ETD
Prevent unwanted stops and fees for delivery vehicles nationwide	Decreased costs of logistics and faster delivery time	H	WB
Accelerate implementation of single windows, in particular the possibility to make electronic payments to customs	Reduced layover at borders and decreased informal payments	H	WB, UNCTAD, WCO, DPs, UNECE, UNESCAP
Accelerate implementation of WTO TFA agreement	Faster border crossing, better predictability of shipments and delivery	M	WB, UNCTAD, WCO, DPs, WTO

H=High, M=Moderate, L=Low



PAYMENT SOLUTIONS			
Activity	Expected outputs	Priority Level	Support potentially by
Support adoption of online and mobile payment systems	Increased adoption of e-commerce by larger segments of population	H	B4ETD
Promote adoption of single e-payment gateway with National Bank of Cambodia	Increased interoperability among e-payment platform leading to easier adoption of e-payment by consumers	H	ADB
Support banks to invest in infrastructure and improve their ICT systems so that they can conduct transactions in real time	Banks are able to keep pace with increased demands for electronic payments for e-commerce	H	B4ETD, WB, UNSIF
Provide education on the value of cashless transactions, including the hidden costs and risks for handling cash	Increased confidence in electronic means of payment and reduced costs associated with handling cash	M	B4ETD, ITC
Encourage banks to engage with TPPs to expand access to cashless payment systems	More competition among TPPs and more affordable costs of electronic payments	M	B4ETD, WB
Encourage adoption of a national switch to process cashless transactions through a single integration	Avoid costs associated with multiple institutional integrations	M	ADB, KOICA
Increase access to cashless payment tools such as credit, debit, and stored-value cards	Increased adoption of e-commerce by the general public and reduced risks associated with storage and handling of cash on delivery (for merchants and customers)	M	ADB, KOICA, WB

LEGAL AND REGULATORY FRAMEWORK			
Activity	Expected outputs	Priority Level	Support potentially by
Discourage regulation and licensing requirements that could hurt or curtail MSME operations	Ensure smooth development of the MSMEs products and services and promote their migration to the formal sector	H	WB, ADB, UNCTAD
Pass the Consumer Protection law, and build awareness of the law and its protections	Increase online confidence of consumers and merchants	H	UNCTAD
Implement planned changes in customs clearance, in order to make it easier and more cost-effective, especially for MSMEs	Faster delivery time for goods purchased online, in particular for small shipments (Less than Container Load)	H	UNCTAD, WCO, ITC, UPU, WB
Improve speed of approval, and ease requirements, for Third Party Processor (TPPs) to do business in Cambodia	Increase the options for consumers to use electronic and mobile payments	M	WB, ADB
Improve compilation of data and generation of statistics on e-commerce	Better policy formulation and implementation by relevant ministries	L	UN, ITU, UNCTAD

H=High, M=Moderate, L=Low



E-COMMERCE SKILLS DEVELOPMENT			
Activity	Expected outputs	Priority Level	Support potentially by
Educate consumers on the trustworthiness and advantages of cashless transactions and how to use cashless payment systems	Increased confidence and adoption of cashless transactions	M	B4ETD/ICTF, ITC
Create programs to education merchants on value of cashless payments	Increased confidence and adoption of cashless transactions	M	B4ETD/ICTF, ITC
Support education and training of ICT professionals in universities	Link university curricula to the demand of the ICT industry, bridge the skill gaps between the ICT industry needs and current ICT-related curriculum	M	B4ETD/ICTF
Include the ICT Academy under the umbrella of MPTC/NIPTICT	Improve existing ICT related curriculum, by offering short, medium and long terms professional courses.	M	KOICA
Create a lexicon of e-commerce terms in Khmer, and a corresponding English / Khmer dictionary of these terms	Facilitate the comprehension of online purchases for consumers	L	ICTF/MOC
Educate about the value of inventory management and general business management best practices	Better participation of MSMEs in commerce, especially as providers for online platforms	L	BritCham, EuroCham,, B4ETD
Establish Regional and Sub-National ICT Training Centers	Ensure harmonized development of ICT skills and e-commerce activities nationwide	L	KOICA

ACCESS TO FINANCING			
Activity	Expected outputs	Priority Level	Support potentially by
Strengthen the capacity of business associations to provide access to finance services for members	Harness the potential of group actions to ensure favorable financing conditions for MSMEs	H	ITC, Local business associations
Promote and facilitate access to finance for e-commerce start-ups	Dynamic sector of the economy is able to create job and business opportunities	M	ITC, UNSIF
Empower women-led associations such as CWEA to develop dedicated training and support on e-commerce	Ensure that women entrepreneurs are offered equal chances to benefit from e-commerce development, facilitate access to finance for women-owned MSMEs	M	ITC, UNCTAD, ILO, UNSIF
Encourage a more international outlook, focusing on ASEAN, the region, and globally, beyond just a focus on the Cambodian market	E-commerce is viewed as a channel to diversify the economy and increase gains from foreign trade and investments	L	ITC

Source: UNCTAD

H=High, M=Moderate, L=Low

## NOTES

- 1 Source: *Connected Life*, TNS Kandar (2016)
- 2 Research study, "Mobile Phones and Internet in Cambodia", The Asia Foundation for USAID (2015)
- 3 Source: *Connected Life*, TNS Kandar, 2016
- 4 Knowledge Economy Index (KEI), World Bank, 2013
- 5 CTIS 2014-2018
- 6 Cambodia Post announced the launch of its online shopping portal for mid-2017 (Phnom Penh Post, January 5, 2017).
- 7 Although there is no official definition of the scope of the universal postal service, the following services should be provided to all citizens throughout the territory: (i) letter post; (ii) parcel post; (iii) money orders.
- 8 UPU, Measuring postal e-services development, a global perspective (2016). The assessment was based on a questionnaire sent by letter to the Posts of the UPU 192 member countries, but only 87 Posts responded to the questionnaire.
- 9 Report Citation: "eCommerce Readiness and Opportunities in Cambodia", January 2017
- 10 Source: Presentation by Sabay CEO, ICT Federation Workshop, November 2016
- 11 A Payment Switch is a system that can interface with any POS system, Automated Teller Machine (ATM), Mobile Payment System and Internet based commerce portals, consolidate all electronic transactions and then intelligently channel them to one or more payment processors for authorization and settlement
- 12 WEF, Global Information Technology Reports, 2010, 2016
- 13 Doing Business 2016, *Measuring Regulatory Quality and Efficiency*, World Bank

