Myanmar
Rapid eTrade Readiness Assessment

UNITED NATIONS

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NOTE

Within the UNCTAD Division on Technology and Logistics, the ICT Policy 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 Policy 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). Since 2016, the Section has coordinated a new multi-stakeholders' initiative entitled eTrade for all (etradeforall.org), which aims to improve the ability of developing countries, particularly least developed countries (LDCs), to use and benefit from e-commerce.

Reference to companies and their activities should not be construed as an endorsement by UNCTAD of those companies or their activities.

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" (US$) 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.

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 a valuable input to these countries' involvement in various discussions related to e-commerce and digital trade, the new UNCTAD Intergovernmental Group of Experts on E-commerce and the Digital Economy.

It may furthermore help LDCs to identify areas in which they could benefit from assistance by partners of eTrade for all.

The Myanmar Rapid eTrade Readiness Assessment is the fifth such assessment conducted by UNCTAD and the second for an ASEAN LDC after Cambodia (December 2016). With the eTrade Readiness Assessment for Lao PDR currently being conducted, UNCTAD will have covered all three ASEAN LDCs and contributed to Myanmar's effective participation in the ASEAN Work Programme on Electronic Commerce (AWPEC) 2017-2025. The AWPEC was finalized by the newly established ASEAN Coordinating Committee on Electronic Commerce (E-Commerce) and adopted by the ASEAN Economic Ministers (AEM) in September 2017. The AWPEC aims to facilitate cross-border e-commerce in ASEAN, covering multi-sectoral e-commerce initiatives in the areas of infrastructure, education and technology competency, consumer protection, modernization of the legal framework, security of electronic transactions, payment systems, trade facilitation, competition, and logistics. A key deliverable of the AWPEC is the development of an ASEAN Agreement on E-Commerce.

It is hoped that the report will contribute to the Government of Myanmar's quest to build a robust, safe and business-friendly e-commerce ecosystem. With the eTrade for all partners, UNCTAD is committed to continue supporting Myanmar in its resolve to harness the potential of e-commerce for development.

Shamika N. Sirimanne
Director, Division on Technology and Logistics, UNCTAD

ACKNOWLEDGEMENTS

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ABBREVIATIONS

AIIB	Asian Infrastructure Investment Bank
ADB	Asian Development Bank
AEC	ASEAN Economic Community
AEM	ASEAN Economic Ministers
AFT	Aid-for-Trade
AMCHAM	The American Chamber of Commerce (AMCHAM) Myanmar
APN	Asian Payment Network
ASEAN	Association of South East Asian Nations
ASYCUDA	Automated System for Customs Data
ATIGA	ASEAN Trade in Goods Agreement
ATISA	ASEAN Trade in Services Agreement
ATM	Automatic Teller Machine
B4ETD	Business for eTrade Development
CBM	Central Bank of Myanmar
CIB	Credit Information Bureau
CIS	Customs Intelligence Database System
CLMV	Cambodia, Lao PDR, Myanmar and Vietnam
COD	Cash on Delivery
DACU	Development Aid Coordination Unit
DEDC	Digital Economy Development Committee
DICA	Directorate of Investment and Company Administration
DP	Development Partner
DTIS	Diagnostic Trade Integration Study
EIF	Enhanced Integrated Framework
EU	European Union
EUROCHAM	European Chamber of Commerce in Myanmar
FDI	Foreign Direct Investment
FERD	Foreign Economic Relations Department
FSP	Financial Service Providers
ICT	Information and Communication Technology
ISP	Internet Service providers
IT	Information Technology
ITeS	Information Technology-enabled Services
ITU	International Telecommunication Union
JICA	Japan International Cooperation Agency
LPI	Logistics Performance Index
MACCS	Myanmar Automated Customs Clearance System
MoC	Ministry of Commerce
MoPF	Ministry of Planning and Finance
MoTC	Ministry of Transport and Communications
MCF	Myanmar Computer Federation
MCPA	Myanmar Computer Professional Association
MCIA	Myanmar Computer Industry Association
MIDO	Myanmar ICT Development Organization
mPOS	Mobile point-of-sales system

MPSS	Myanmar Payment Solution Services
MPT	Myanma Posts and Telecommunications
MPU	Myanmar Payment Union
MSDP	Myanmar Sustainable Development Strategy
MSME	Micro, Small and Medium Enterprises
MTP	Medium Term Programme for Aid-for-Trade
MYANTRADE	Myanmar Trade Promotion Organization
MYEA	Myanmar Youth Entrepreneur Association
NACCS	Nippon Automated Cargo and Port Consolidated System
NES	National Export Strategy
POS	Point of Sales
PPP	Public-Private Partnership
PSDC	Private Sector Development Committee
PSDF	Private Sector Development Framework and Action Plan
PSP	Payment Service Provider
RCEP	Regional Comprehensive Economic Partnership
SMIDB	Small and Medium Industrial Development Bank
SPS	Sanitary and Phytosanitary
TiSA	Trade in Services Agreement
TFA	WTO Trade Facilitation Agreement
UMFCCI	Union of Myanmar Federation of Chambers of Commerce and Industry
UNCDF	United Nations Capital Development Fund
UNCTAD	United Nations Conference on Trade and Development
UPU	Universal Postal Union
US$	United States Dollar
WTO	World Trade Organization

EXECUTIVE SUMMARY

Myanmar is currently best described as a country in the midst of a triple transition – from a military government to democratic governance, from a centrally directed economy to a market-oriented economy, and from 60 years of conflict towards peace in the region. Myanmar has been focusing on the many new opportunities opened by its reintegration in the global trade system and the introduction of the ASEAN Economic Community. At the same time, Myanmar is also undergoing a connectivity transition. All of this presents enormous economic opportunities as well as significant challenges.

After liberalizing its telecommunications market in 2014, the country jumped straight to smartphones and data. The mobile penetration rate is closed to 100 per cent with smartphone penetration above 80 per cent. There is an unprecedented opportunity for Myanmar to do digital, as well as financial, leapfrogging: to use technology to accelerate change and development, and to use e-commerce to move from a cash-only to a cashless society.

Yet, there are still substantial obstacles preventing tech start-ups and merchants from scaling up their businesses via e-commerce and more generally for an uptake of e-commerce in the country. While Myanmar's e-commerce future may look bright on the basis of these impressive figures, a considerable amount of work for the Government is still needed to increase the country's readiness for e-commerce. In the long run, IT products, BPO and tourism are likely to benefit the most from the e-commerce uptake, though most firms interviewed failed to see how cross-border e-commerce, besides for import of consumer goods, could help addressing the increasing foreign trade imbalance.

Three policy areas require important reforms and improvements to increase Myanmar e-commerce readiness.

- **Improving and updating the legislative and regulatory framework for e-commerce** is of paramount importance. E-commerce needs a suitable environment to grow; it also needs the government's support in establishing and optimizing such environment, especially in areas where the market mechanism fails to allocate resources. The Government's role is to set up rules, regulations, and legislation in both the physical and virtual parts of the market to ensure the security and stability of e-commerce growth. In line with UNCTAD's recommendations, improvements of existing laws and regulations, including taking advantage of international legal instruments such as the Framework Agreement on Facilitation of Cross-border Paperless Trade in Asia and the Pacific are essential for addressing consumer protection (including recourse), privacy, security of transactions, cybercrime, and other concerns.

- Since only six per cent of the population have an active bank account, bank transfers are not enabled and the use of credit cards is rare. **Trust in electronic payment** is still a long way down the road and will probably rely on acceptance of newly launched agent-based mobile wallets. Online banking services are only used by two per cent of mobile owners and the preferred way of payment is cash on delivery (COD), accounting for around 95 per cent of all e-commerce transactions. Banks need to invest in technology and know-how so that their systems are ready for online payments.

- **Lack of digital literacy, ICT skills and knowledge** slows down e-commerce adoption. Besides the lack of customization of platforms for content in Burmese and the limited command of English among the population, business and government included, it is important to educate merchants and consumers on the benefits and pitfalls of digital work and of e-commerce. Government has a role to play in educating the population on digital products, as well as in making sure that educational institutions incorporate digital literacy in their curriculum. The same goes for ensuring that tertiary educational bodies contribute to reducing the ICT skills gaps. Companies involved in the Internet economy, mostly MSMEs, can also work to provide education to encourage consumers to engage more online, including shopping and paying

digitally. It is hard to get people to use digital products other than Facebook. Retailers can do their part for growth by relying more on other platforms more conducive to e-commerce.

With such robust growth and clear demand to go digital, Myanmar is attracting the attention of business accelerators and venture capitalists, fuelling the booming tech start-ups industry. In the long run, more investors and incubators will be needed, complementing assistance from the government and banks to create the ecosystem needed for e-commerce to take off in Myanmar.

Myanmar could tap into the steady amount of support it receives annually from its development partners, some of them starting to show an interest in the digital economy (see figure 1 below on priority factor for

e-commerce development identified by respondents to the online survey) . They could for instance support Myanmar's quest to better integrate e-commerce in its trade and development agenda. Myanmar joined the Joint Statement on Electronic Commerce 2017 issued at the closure of the WTO 11th Ministerial Conference of the World Trade Organization (WTO) in December 2017. The Statement, supported by some 70 governments, establishes a new agenda within the WTO to enable e-commerce in support of global development and small-business growth. Myanmar will also explore potential benefits from a new initiative designed to drive public-private dialogue on e-commerce that was launched by the WTO, the World Economic Forum and the Electronic World Trade Platform.

Figure 1: Most important factors for e-commerce development

What is the most important factor for e-commerce development in Myanmar
(number of occurrences)?
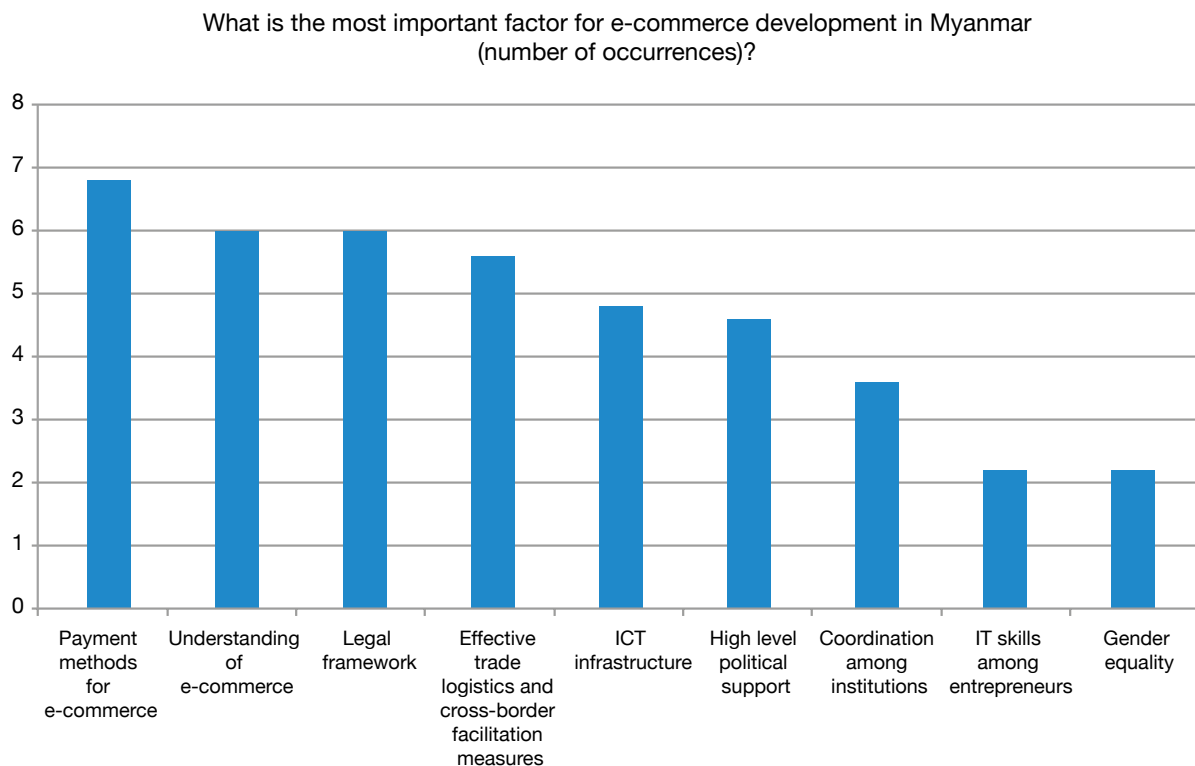
METHODOLOGY

A four-step approach was used for the Rapid eTrade Readiness Assessment for Myanmar, to ensure a high level of participation and engagement of key stakeholders in the consultative process:

Figure 2: Assessment methodology

- Phase 1 | Stakeholder engagement and literature review, 1-30 August 2017. It included official communications between UNCTAD, the Myanmar Ministry of Commerce (MoC) and the Permanent Mission of the Republic of the Union of Myanmar in Geneva. Literature review and data analysis were made possible through access to up-to-date statistics provided by ITU, UPU and the World Bank, in addition to data compiled by UNCTAD on behalf of the eTrade for all initiative.

- Phase 2 | Online survey customization and dissemination, 1-20 October 2017. Two (2) customized questionnaires for the most relevant public and private sectors stakeholders were distributed by MoC to more than 100 stakeholders in Myanmar. A total of 38 completed questionnaires were used for this report (26 received online and 12 completed offline).

- Phase 3 | Semi-structured in-country interviews and local validation, 23-27 October 2017 during the consultants' mission to Yangon and Nay Pyi Taw. Two focus-group meetings were held, for professional associations (Yangon, 24 October 2017) and for Government officials (26 October 2017). A briefing on early findings and suggestions were presented to U Yan Naing Htun, Director General, Department of Trade, Ministry of Commerce on 26 October 2017.

- Phase 4 | Report writing and finalization with UNCTAD, January 2018.

As with all Rapid E-Trade Readiness Assessments, the seven policy areas used in the eTrade for all initiative were used as entry points for this assessment. These are:

- 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

The information provided in this report is based on data collected from 38 respondents to the survey for both the public and private sectors and the 30 participants in the two focus-group meetings in Yangon and Nay Pyi Taw.

SUMMARY OF FINDINGS AND RECOMMENDATIONS

MAIN FINDINGS	MAIN RECOMMENDATIONS
e-Commerce Readiness Assessment and Strategies Formulation	
The very rapid increase in mobile penetration and booming tech start-up scene led the Government to becoming proactive in e-commerce development, although starting from a very low base. The e-Government Master Plan was a step in the right direction, though It is broadly recognized that a proper strategy is urgently needed to provide a shared vision and increase better interministerial coordination, at national and state level.	Enhance nascent Public-Private dialogue, coupled with current trade negotiations on ICT services e-commerce within ASEAN Trade in Services Agreement (ATISA) and Regional Comprehensive Economic Partnership (RCEP) to formalize inter-ministerial cooperation on e-commerce development and recognize the e-commerce sector as a promising contributor to economic development and job creation.
ICT Infrastructure and Services	
Myanmar is a mobile-only country, and increasingly a smartphone-only and "Facebook-first" country. The entrance of two foreign telecom giants ended the monopoly of the state-owned company, and brought down the price of SIM cards. Myanmar has leapfrogged from basic phones to smartphones, causing the country's Internet penetration to skyrocket. Broadband remains very limited, patchy and expensive.	Continue supporting deployment of mobile Internet (4G) to urban areas by foreign and domestic operators. Support deployment of faster broadband Internet in Nay Pyi Taw to ensure that the Government is able to cope and deploy additional e-government services to the trade sector (licensing, certificates of origin, business registration).
Trade Logistics and Trade Facilitation	
Myanmar suffers from (1) a lack of a physical address system and a postal code system, (2) outdated customs clearance procedures for small parcels, with a US$50 de minimis value on express packages not fully applied and (3) a monopoly of door-to-door delivery to individual households. Licensing third party logistics providers to cope with the underdeveloped postal services has enabled the country to cope with the fast-developing domestic e-commerce market.	Accelerate Public-Private Partnerships (PPP), working with logistics providers to support the ever-increasing e-commerce delivery markets, both for individuals and businesses. Upgrade Myanma Posts and Telecommunications (MPT) capacity to deliver to rural areas and expand postcodes nationwide. Implement the WTO Trade Facilitation Agreement as soon as possible, in particular Article 7.8 on expedited shipment and join the Framework Agreement on Facilitation of Cross-border Paperless Trade in Asia and the Pacific.
Payment Solutions	
Credit cards, mobile money services, and cashless solutions are readily available, provided by telecom operators and microfinance institutions, but the population remains largely unbanked. The use of e-payments remains very limited still, due to low banking literacy, lack of trust in cashless transactions and the lack of bank interoperability.	Develop and roll out massive awareness campaigns with the public and merchants on the benefits, ease of use of e-payment methods and the cost of handling cash. Support upgrade of domestic bank e-payment services, including national payment gateway, possibly using the existing Myanmar Payment Union (MPU) infrastructure. Accelerate the development of solutions enabling use of electronic payment for import and export procedures, including payment for taxes, duties, fees and charges.
Legal and Regulatory Framework	
E-commerce supportive laws and regulations are not yet in place, though slightly outdated cybersecurity and e-transactions were passed more than 10 years ago. Banking regulations are outdated due partly to the sanctions and restrictions affecting Myanmar until 2012, limiting the use of international debit and credit cards.	Streamline legal development work among different Government agencies involved in e-commerce with a view to prioritize and sequence the legal reform agenda, in consultation with the private sector, through the recently established Private Sector Development Committee.

MAIN FINDINGS	MAIN RECOMMENDATIONS
e-Commerce Skills Development	
Universities and training providers are not able to provide much needed e-commerce skills (web development, application development, content manager, digital products development). Tech start-ups are importing skills from Burmese diaspora living in Singapore, complemented by on-the-job training and support by a growing number of business incubators and business accelerators.	Assess current e-commerce and ICT skill gaps to accelerate the development of ICT related curricula in line with e-commerce industry's needs. Enhance dialogue with leading domestic and foreign chambers of commerce and business associations' dedicated committee.
Access to Financing	
E-commerce is considered a risk-prone industry and appropriate levels of collateral are required from e-commerce SMEs in a par with traditional SMEs. Personal and relatives' finances, donor-supported initiatives are prime sources of financing. Several venture capitalists focusing on tech start-ups have appeared only recently, slowly changing access to the capital ecosystem, though remaining discretionary due to an unsupportive legal and tax environment.	SMEs financing programmes should be better marketed through business associations and federations. Enhance dialogue between Government and tech start-ups, through business accelerators and venture capitalists to ensure mutual understanding and additional investments in Myanmar MSMEs.

FINDINGS UNDER THE SEVEN ETRADE FOR ALL POLICY AREAS

1. E-COMMERCE READINESS ASSESSMENTS AND STRATEGY FORMULATION

> Myanmar's economy is undergoing profound changes, as the country catches up with its ASEAN neighbours and vows to accelerate the integration at regional and global level. ICT and e-commerce represent formidable boosters in that regard. The growing interest within Government institutions to take advantage of the digital revolution was translated in several national policies and strategies over the past three years. Yet, the e-commerce ecosystem is not fully in place yet, owed mainly to the very low technology, skills and knowledge basis it has been built upon. Myanmar is catching up, as its large, young population are pushing for increased adoption of ICT. Public-private dialogue on the digital economy have flourished and bodes well for the future, despite the numerous structural challenges.

Myanmar ranked 123rd out of 144 economies in the 2017 UNCTAD B2C E-commerce Index, which measures the readiness of countries to engage in online commerce, using four indicators: Internet use penetration, secure servers per one million inhabitants, credit card penetration, and a postal reliability score. Myanmar ranked also 135th (up from 140th in 2016) out of 175 economies in the 2017 International Telecommunications Union (ITU) ICT Development Index (IDI) (Table I).

Table I: IT Development Ranking in Selected Countries		
Country	**ITU IDI Ranking**	**UNCTAD B2C E-Commerce Index**
Thailand	78	49
China	80	65
Cambodia	128	115
India	134	83
Myanmar	135	123
Lao PDR	138	92
Bangladesh	147	103

Source: ITU (IDI 2017 report), UNCTAD
(2017 B2C e-Commerce Index)

The relatively low position of Myanmar in these rankings hides the fact that Myanmar has made steady progress in harnessing the benefits derived from adoption of ICT and e-commerce over the past few years, in particular since the removal of economic sanctions in 2012. The growing interest within Government institutions to take advantage of the e-commerce revolution has been translated into

several national policies and strategies over the past three years. The Government is gearing up to be able to facilitate the development of an enabling ecosystem for a digital economy in general and e-commerce development in particular. The challenges faced are both daunting and complex.

1.1. National policies related to ICT, e-government and e-commerce

A focus on the Digital Economy, ICT and e-governance to catch up with international best practices.

The Economic Policy of the Union of Myanmar issued in July 2016 gives an important role to the digital economy. It is people-centered, and aims to achieve inclusive and continuous development. It aims to establish an economic framework that supports national reconciliation, based on the just balancing of sustainable natural resource mobilization and allocation across the States and Regions. One of the key objectives is to "prioritize the rapid development of fundamental economic infrastructure such as electricity generation, roads and ports, and establish a data ID card system, a digital government strategy, and an e-government system". Every ministry of the Government of the Republic of the Union of Myanmar was requested to indicate how they intend to contribute to this objective (referred to as "target") and to draw up a five-year plan highlighting their contribution. In the short run, Myanmar Sustainable Development Strategy (MSDP) will be drafted and will include sub-pillars on job creation and promoting digital economy.

To promote development in social affairs, education, health and economy by use of digital technology and to foster Myanmar as a digital hub of ASEAN region, a Digital Economy Development Committee (DEDC) was formed in July 2017, under the responsibility of the Ministry of Planning and Finance (MoPF), to perform the tasks of effective implementation of national economic policies, provision of governmental support for the emergence of a digital economy in the country.

DEDC was formed with the intention of performing the tasks of effective and successful implementation of national economic policies, provision of governmental supports for the successful emergence of digital economy in the country, development of other economic sectors based on digital economy, with a vision to place Myanmar as a digital hub of ASEAN region. One of the tasks of DEDC is to draft the Myanmar Digital Economy Development Master Plan aimed to develop and regulate the country's booming digital economy. DEDC will also prepare a short-term (2-3 years) and a medium-term (3-5 years) working programme.

The previous Government launched the Myanmar e-Governance Master Plan in 2015, developed in cooperation with ADB. The plan foresees to build institutions that would be dealing with implementation of e-government and to design the work plan and priorities for different Government bodies based on the needs assessment and the international best practices. The plan also aims to analyze the gaps in skills and find appropriate policies to remedy them. Finally, the plan seeks to develop policies to promote adoption of an e-government system and secure accessibility of the system for all stakeholders.

The e-Governance Master Plan in 2015 includes Ministry-level objectives. Each ministry is expected to develop e-government specific applications in order to provide particular services depending on the nature of tasks, related to specific departments, e.g. Government to Businesses (G2B) and/or Government to Citizens (G2C).

Ministry-specific applications (Table II) should cater to the requirements specific to each ministry and its stakeholders (businesses and citizens). These ministries will leverage the shared applications, and be interoperable with other ministry-specific applications as needed. E-commerce related applications and tools are within the purview of the Ministry of Commerce.

Table II: List of Ministry-specific application initiatives	
Ministry	**Name of the Initiative**
Electricity and Energy	Consumer Services (Billing, Grievance Redressal)
	Automatic Data Logging
	Energy Accounting and Auditing
Construction	Land Acquisition Management
	Asset Management System
	Core ERP (Material Management)
	Housing Allotment Management System
	Geographic Information System (GIS)
Ministry of Planning and Finance	Customs Electronic Data Interchange
	Central Budgeting and Financial Management System
	Commercial Tax System
	Income Tax Management System
	Social Welfare Scheme Development and Tracking
	Aid Information Management System (AIMS)
Commerce	Business Promotion Portal
	Establishment of an e-commerce Platform
	Consumer Protection Platform

Ministry	Name of the Initiative
Transport and Communication	Track Maintenance System
	Passenger Reservation System
	Control Room Automation System
	Freight Operations Management System
	Vehicle Registration Management System
	Driver License Management System
	Multimodal Transport System
	Smart Transport Management System
	Terminal Operating System
Home Affairs	Crime and Criminal Tracking Systems
	Missing Person and Most Wanted List Portal
	Online Registration of Associations
	Prison Case Management
Labour, Immigration and Population	Census Data Management
	Visa Management System
	National ID for Citizens
Central Bank of Myanmar	E-payment System
	Online Banking System

Source: e-Governance Master Plan, ADB/Ministry of Transport and Communications, 2015

1.2. National policies related to trade

Economic diversification moving from focus on value chain to a services economy, in line with vast economic potential.

Following Myanmar's decision to accelerate its reintegration into the world economy, the boom in trade and investment has boosted average economic growth beyond seven percent per year as the country starts to catch up with its neighbors. Myanmar has been focusing on the many new opportunities opened by its reintegration in the global trade system and the introduction of the ASEAN Economic Community (AEC).

Myanmar is at a crossroads in its trade development and consequently in its participation in the Aid-for-Trade initiative. Over the past 24 months, the following seven national or sectoral trade-related development plans or frameworks have been endorsed and launched by the Government:

- Diagnostic Trade Integration Study (DTIS)

- National Export Strategy (NES)
- Master Plan for Establishment of Myanmar Trade Promotion Organization (MYANTRADE)
- Private Sector Development Framework and Action Plan (PSDF)
- Gap Assessment for WTO Trade Facilitation Agreement (TFA)
- Gap Assessment on ASEAN Trade in Goods Agreement (ATIGA)
- Development of SPS Management and Capacity (SPS)

In order to sequence and prioritize actions, the Ministry of Commerce published a Medium-Term Programme for Coordinated Aid-for-Trade (MTP 2017-2021). The MTP takes stock of recent trade development, prioritizes areas of needed support, and sequences desirable trade-related technical assistance for the next five years. E-commerce, e-government and ICT development are featured in the MTP and relevant national policies, with a focus on trade facilitation (e.g. ICT improvement in customs, e-government application in the Ministry of Commerce).

1.3. National coordination

Coordination of e-commerce development is nascent.

With the introduction of a new government in 2016, new interministerial committees and task forces have been created, including those with the private sector (Private Sector Development Work Committee) and those with the Development Partners (Sector Coordination Working Groups). None of the recently created groups, committees and task forces has a dedicated focus on e-commerce. At the time of production of this report, there was still no interministerial coordination mechanism within the Government and no internal Government coordination point yet, when it comes to e-commerce. The existing coordination group on the development of a digital economy will most likely be tasked to consider e-commerce matters.

For negotiation matters however – be them for the WTO, ASEAN and Regional Comprehensive Economic Partnership (RCEP) – the national e-commerce focal point is the Department of Trade, Ministry of Commerce. This stems from a 2017 decision to house all matters regarding services negotiations under one roof, in the Ministry of Commerce. As e-commerce has emerged as a negotiation item in ASEAN and RCEP fora, the Ministry of Commerce is best placed to lead e-commerce negotiations on behalf of the Government.

Worth noting, as of 2015, ASEAN is a market of more than 600 million people, of which 25 per cent are Internet users, double the 2009 level. The associated e-commerce market is projected to reach up to US$200 billion by 2025, compared to US$31 billion in 2015[1]. An e-ASEAN Framework Agreement was concluded in 2000 with the aim of both enhancing the competitiveness of the ICT sector in ASEAN and reducing the digital divide within and among individual ASEAN members. The Framework also aims to liberalize trade in ICT goods and services and in investments to support the e-ASEAN initiative. The ASEAN Economic Community (AEC) Blueprint 2025 also aims to intensify cooperation on e-commerce with the aim of an overall ASEAN e-commerce agreement to facilitate cross-border e-commerce transactions

within ASEAN. The new agreement should harmonize both the rules on consumer rights and protection, and the legal framework for online dispute resolution; create a secure, reliable system of inter-operable, mutually recognized and user-friendly e-identification and authorization (electronic signature); and establish a coherent and comprehensive framework for personal data protection. On ICT, the Blueprint foresees measures that will spur the adoption, promotion and development of digital trade; and support ICT innovation, infrastructure and human capital. ASEAN has also signed an agreement with Australia and New Zealand that includes many mandatory e-commerce provisions. Finally, all ASEAN member states are at an advanced stage of negotiations of the RCEP for which e-commerce is a negotiation issue.

From the private sector angle, business associations and federations have slowly integrated e-commerce, e-government and the digital economy in their focus and advocacy work. Respondents to the online survey indicated that they would favour business chambers when in need of technical assistance to start developing e-commerce solutions (Figure 3). However, the business associations surveyed for this assessment have only recently integrated ICT and digital economy matters in their advocacy work (AMCHAM, EUROCHAM). Advocacy work has mostly taken the form of joint workshops organized with Government entities. Business associations and federations will need to increase their understanding of what e-commerce entails in order to support the adoption of e-commerce solutions by their members and the government alike.

The Myanmar Computer Federation[2] (MCF) is divided into two associations, the Myanmar Computer Industry Association (MCIA) and the Myanmar Computer Professionals Association (MCPA), which represent industry and professionals, respectively. MCIA mainly deals with import/export, taxation, legal framework issues, while the MCPA deals with developing ICT skills. Their focus has switched gradually from the hardware parts of ICT to the soft aspects of e-commerce. The MCF has an e-Government committee tasked with working with International Organizations, advising the ministries on e-government, and doing outreach

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[1] *Google, Temasek, « E-Conomy SEA : Unlocking the US$200 Billion digital opportunity in Southeast Asia", 2016*

[2] *The Myanmar Computer Federation created by the provisions of the 1996 Computer Science Development Law and featuring business representatives is the designated focal point for coordination with the International Telecommunication Union (ITU)*

to investors. The MCF organizes an annual event on e-government in partnership with the Ministry of Commerce.

The Union of Myanmar Federation of Chamber of Commerce and Industry (UMFCCI), the Myanmar Youth Entrepreneur Association, two of the leading business federations, both have an Information and Communication Technology (ICT) Committee. They organize regular events on ICT, tech start-ups and the digital economy, and have advocacy work with several Government agencies.[3]

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[3] *https://www.mmtimes.com/news/businesses-government-must-embrace-digital-technology-stay-relevant.html*

The European Chamber of Commerce in Myanmar (EUROCHAM Myanmar) recently launched a Digital Innovation Advocacy group. Its objectives are to improve digital literacy and stimulate fair access and use of the Internet, by stimulating efficiency and support in developing new digital business models, developing the ecosystem by driving supporting legislation and (government) investments, and raising awareness with Regional and State Ministries about the added value of digital solutions and e-commerce in the overall development and economic growth of the country.

Figure 3: Technical assistance partners

In case you need technical assistance to start developing e-commerce solutions, how likely are you to turn to the following institutions (in percentage, from 0 per cent to 100 per cent likeliness)?
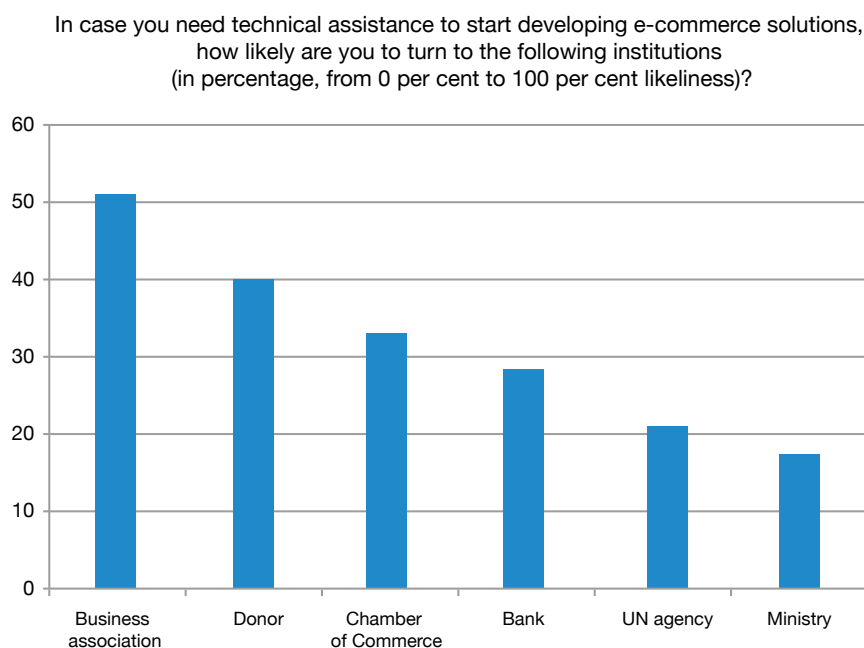
Source: UNCTAD

1.4. Access to relevant statistics

Reliable and up-to-date statistics on e-commerce volumes (both for domestic and foreign e-commerce) are not readily available in Myanmar.

Like most other countries, Myanmar customs does not disaggregate goods to include e-commerce packages. The Ministry of Commerce is producing trade statistics on goods, but does not include e-commerce in its tools. The Ministry of Transport and Communication produces statistics on telephone usage. Some up-to-date data and statistics are available, sometimes for a fee, because of the number of private companies producing research on the development of the digital ecosystem in Myanmar (e.g., Google Temasek, LIRNEasia, We Are Social, and TNS Kantar). The statistics available focus on Internet and mobile penetration, use of platforms, time spent online and consumption habits of different segments of the population. Statistics on transactions (quantity and amount) are not available yet, although the Ministry of Commerce is planning to develop trade in services statistics, starting in 2018.

2. ICT INFRASTRUCTURE AND SERVICES

The lifting of economic sanctions, coupled with a favorable investment law have created the conditions for a rapid boom in adoption of the Internet and mobile telephony. Both domestic and foreign mobile operators have deployed 3G mobile telephony to cover the entire population and launched a 4G network in 2017. This resulted in one of the fastest adoptions of the Internet in recent years. Access to technology at affordable prices has not been translated yet in an uptake in e-commerce or the development of e-government services, as corresponding skills and knowledge development have been slow to catch up, both in public and private sectors. As observed in LDCs, social media applications like Facebook are the ones benefiting the most from the better ICT infrastructure.

2.1. Broadband/Mobile/Smartphone penetration

One of the fastest increases in mobile communication and smartphone adoption in the world over the past four years.

According to the latest figures published in Q1 2017, out of a total population of 54.6 million inhabitants (with 35 per cent urbanized), the actual number of Internet users was 14 million (26 per cent penetration), active social media users were equally 14 million (including 13 million mobile social media users) and mobile subscriptions reached a total of 50.56 million [4] (93 per cent of the population)[5]. These figures indicate very dynamic growth over the past three years, and even more so over the past 12 months (January 2016-January 2017) with 97 per cent growth rate of Internet users, 84 per cent change in active social media users and 106 per cent growth of mobile social media users. The significant growth was spurred by the arrival of telecom giants in 2014 (notably Norway's Telenor and Qatar's Ooredoo), which entered the market bringing capital with them: in 2014 and 2015 telecommunications accounted for $2.8 billion in foreign direct investment, almost a third of the total.

Myanmar is therefore a mobile-only market. A SIM card can be bought today for as little as US$1.50, whereas it cost US$2,000 five years ago. With the introduction of cheap smartphones on the market and the rise of tech start-up in Yangon, Burmese mobile users have leapfrogged the basic phones in favour of smartphones causing the country's Internet penetration to skyrocket. Many households would rather have two or more smartphones on hand than owning a desktop or laptop.

Facebook-first dilemma

Myanmar is also a "Facebook-first" country. While Facebook was barely used in Myanmar five years ago, it now boasts 84 per cent year-on-year growth, one of the highest in the world. The country was also a testing ground for the Facebook Basics and Facebook Flex initiative, which allowed unlimited surfing on certain sites and use of Facebook in a data-free mode. Amid the country's growing online maturity, less than 20 per cent of mobile phone users are browsing the Internet. The growth in social users has been so significant that some Burmese youth identifies Facebook as the Internet itself.

Facebook has to some extent become a de facto Internet for Myanmar. This creates opportunities – single entry point, relationship and network building, access to information, but raises numerous challenges and drawbacks, and in particular for the acquisition of ICT and e-commerce related knowledge and skills.

Myanmar was one of the few countries in the world to benefit from zero rating services. Zero rating services refer to platforms that only allow free access to certain websites. The first was Myanmar Posts and Telecommunications (MPT) Free Basics program, a now-discontinued service that allowed customers access to some local websites, Facebook Messenger, Facebook Flex and Burmese Wikipedia. The second service was Telenor Free, an option that included 150 MB a day of full Facebook access and unlimited Viber messages. In theory, such platforms should serve as on-ramps to Internet use in places that have traditionally suffered from lack of access to Wi-Fi and other information technologies. While Telenor Free proved more popular among Myanmar residents, thanks to its offer of full-featured Facebook, the service was found to provide an on-ramp to Facebook but not to the broader web, leading to concerns about a lack of diversity of content.

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[4] *Typically in LDCs, more than one subscription per individual is the norm in developing countries to benefit from on air time incentives from different providers, in which case the actual penetration rate might be lower.*

[5] *Source: "Digital in 2017: A study of Internet, social media, and mobile use throughout Southeast Asia", We are Social, Hootsuite, 2017*

Facebook's prominence creates a cycle because companies, political parties and other organizations all have Facebook pages, so between their content and the news, entertainment and personal updates that attract people to the platform, users have no reason to leave it. This points to a critical lack of digital literacy among the population.

2.2. Reliability, affordability, latency, speed, coverage

Increasing accessibility and affordability of the mobile Internet has reached the vast majority of the population.

The large domestic population and low population density have attracted mobile operators, in particular since 2012 when international sanctions were removed and a new Foreign Investment Law was enacted. Three giant telecom companies (KDDI/MPT, Telenor, Ooredoo) now have nationwide coverage, with a fourth domestic competitor coming in 2018, which is expected to lower telephony and mobile Internet prices. Mobile providers are coming up with attractive data packages, particularly in high-speed data service, as they fight for market share.

The three current mobile operators launched 4G last year with different strategies. Ooredoo, the first to operate in the country, deployed the largest number of cells. It also invested massively in marketing activities to promote its new network. MPT and Telenor adopted a more cautious approach: MPT launched 4G solution in specific and popular places both in Yangon and Nay Pyi Taw. As for Telenor, because of a lack of frequencies, it first avoided Yangon and covered up to 17 cities as of February 2017, then launched its 4G service in Yangon in mid-2017, announcing that the new service will be progressively available in every township.

In terms of affordability, while a majority of respondents indicated prices were still high (see Figure 3), the downward price trend? has steadily continued over the months. The average blended price (mix of all operators) used to be 2,900 Myanmar Kyats (US$2.1) per gigabyte (GB) in December 2016. In June 2017, the blended price came down to 1,600 Myanmar Kyats (US$1.2) per GB, which represents 81 per cent drop within a couple of months. In December 2017, the price came down again to roughly US$1/GB for all three operators.

Meanwhile, Myanmar's very high fixed-broadband prices work prohibitively against the further uptake of digital solutions in the country. Licences for Internet service providers are very expensive and the spectrum allocated does not allow them to provide full-fledged mobile services. This works as a deterrent to the e-commerce industry.

Figure 4: Most important ICT Infrastructure Factors

Please rank the following areas according to their relative importance
to create an environment that is conducive to e-commerce (number of occurrences)
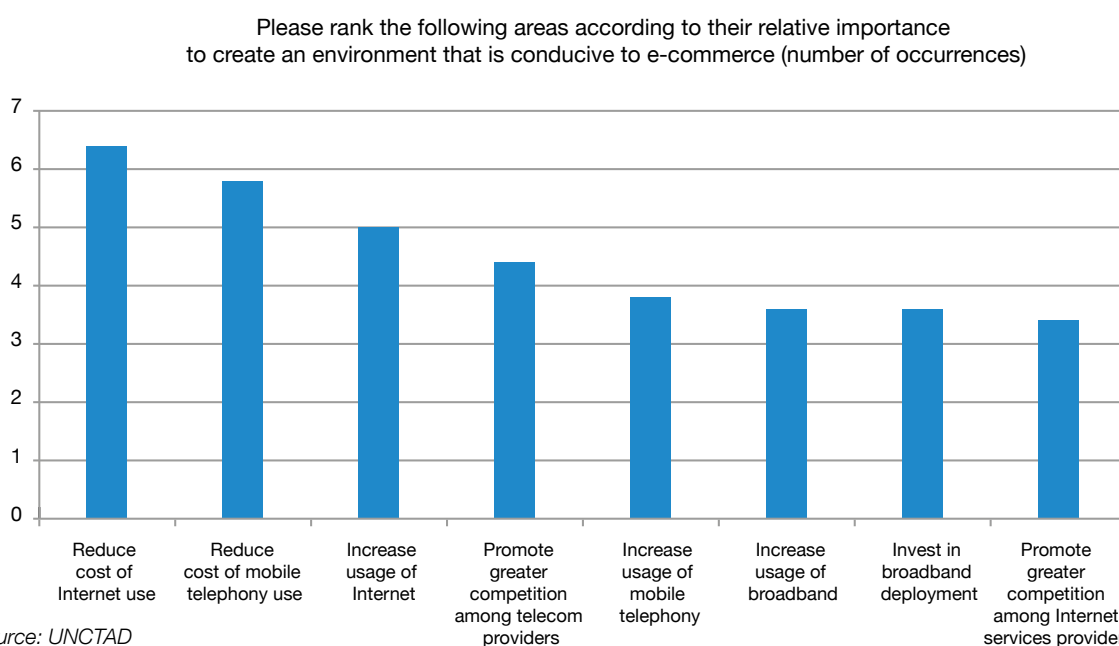
Source: UNCTAD

2.3. Major infrastructure projects

Infrastructure-hungry Myanmar is adding Internet capacity as growing demand from Government, businesses and the public alike increases year after year.

Myanmar's main connection to the Internet is via the SEA-ME-WE 3 submarine cable, and through satellite and cross-border cable links with China and Thailand. Myanmar Post and Telecom (MPT), the State-owned operator, no longer has the exclusive rights to use these connections and is making them available to other providers in the country. In addition, Telenor and Ooredoo constructed three international connections to Thailand and China in 2016 and are building (Telenor) another one going to India. In 2016, a Singapore-based company announced plans to develop the Myanmar-Malaysia-Thailand-International Connection (MYTHIC) cable, making it Myanmar's first private undersea Internet cable.

Separately, the SEA-ME-WE 5[6] subsea fibre-optic cable linking Southeast Asia to Europe via the Middle East has been completed. Built with a design capacity of 24 Terabits per second, the 20,000km cable system uses 100 Gigabyte technology from the get-go to deliver fast access to consumers and businesses in Southeast Asia countries such as Indonesia, Malaysia, Myanmar, Singapore and Thailand. The SEA-ME-WE 5 (South East Asia - Middle East - Western Europe 5 Submarine Cable System) is expected to meet the projected quadrupling in demand for bandwidth between Europe and Asia in the next five years, offering the lowest latency for Internet traffic between the two regions. It will provide a seven-fold capacity increase along the corridor connecting Southeast Asia, the Middle East and Western Europe.

Last, Intelsat signed an agreement with the Ministry of Transport and Communications to use two of its satellites to further the development of wireless networks. KBZ Gateway[7], a Myanmar-based company, partnered recently with Asia Satellite Telecommunications and Hughes Network Systems to provide high-speed broadband services for government, business and consumers.

2.4. ICT Services

Reforms across ministries following the adoption of the e-Governance Master Plan has translated into new services starting to be digitalized or automated, though trust of e-commerce and e-government solutions by businesses and citizens remains low. From a Government perspective, the need to provide public services using ICT is a priority, owing to the increasing demand from large segments of the population, both in urban and rural areas. The public investment in ICT services and, going further, in the promotion of the use of ICT services has been limited.

At an interministerial workshop organized by UNCTAD at the Ministry of Commerce for the purpose of this rapid assessment, the ministry's representatives showed a growing appetite for G2B and G2C applications to become available. In most ministries, key services have already been "computerized", i.e. made digital, but the corresponding processes are not automated yet (they still require human intervention in some critical steps, e.g., interaction with users, payments). That would require Government officials in respective ministries to review and approve the segments being automated and to have the appropriate regulatory framework in place. As several participants indicated "it is good to automate but it requires the legal aspect and collaboration with other ministries. And there is competition among ministries. Everybody wants to be focal point and not lose the control."

There is limited trust in ICT solutions both among Government officials and users of public services. From the user perspective, people feel more comfortable meeting people in person or filling in forms personally rather than doing it online.

In 2016, LIRNEasia released a comprehensive study on mobile phones, Internet, and gender in Myanmar[8] (see Table IV). The study presents a number of very revealing facts about mobile Internet usage in Myanmar:

- While mobile phone ownership is growing fast, women in Myanmar are 29 per cent less likely to own a mobile phone than men, according to the national baseline survey. There is a substantial wage disparity between men and women in Myanmar, particularly in rural areas, and this limits women's ability to pay for top-ups.

- There is a latent demand for mobile Internet services among both women and men.

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6   See: http://www.seamewe5.com/about/about-smw5/
7   http://www.kbzgateway.com/#services

8   "Mobile phones, Internet, and gender in Myanmar", Ayesha Zainudeen, Helani Galpaya for LIRNEasia and GSMA Connected Women

- Many of the interview respondents were initially motivated to adopt mobile Internet services to meet basic communication needs (social, emergency, etc.), but once they were connected (especially through data services) their usage expanded to include business communication and coordination (for those who work or own a business), improving social status, and entertainment (gaming, social media).

- Approximately one-third of mobile owners have used at least one data service on their mobile phone, according to the national baseline survey. More than half of these users stick to using one to three data services; this was slightly more common among women (59 per cent) than men (52 per cent) data service users. Much of this use is limited to social media, calling and chat applications.

- Many women were found not to possess the skills or knowledge to begin using data services (due to a lack of experience with technology), and usually relied on others (primarily men, either relatives or in phone shops) for instruction. This was seen to limit the amount of help women sought and received.

- Negative perceptions of the Internet are common, especially among those with limited experience and knowledge of it. Once people become actual data service users (even if they do not own a handset of their own), negative perceptions seem to be displaced by the benefits.

While ICT-related topics are being discussed in regular conferences and workshop, especially with the Union of Myanmar Federation of Chambers of Commerce and Industry (UMFCCI), participants in these gatherings on ICT are very high-level officials. There is a need to engage staff at lower levels and who deal with technical issues related to e-government.

First steps are being made already to increase trust and transparency in ICT solutions: Myanmar Online Security Service (http://www.moss.com.mm/) is licensed by the Government of Myanmar to provide Trusted Digital Certificates and SSL Certificates, which allow entities that participate in an electronic transaction to prove their identity towards other participants or sign data electronically. The Government, through the Ministry of Commerce, already operates a trade portal (http://www.myanmartradeportal.gov.mm/index.php), which provides a useful set of information to importers and exporters, but where no transactions are possible yet.

Services

As indicated earlier, the mobile-first Myanmar Internet users don't really use browsers and few understand the concept of a URL unless it is Facebook. Most of them use Facebook and links out of that. Social media usage is picking up with applications such as Twitter. Yet, while international brands are eager to leverage on mainstream social media platforms to reach local audiences, local brands and businesses are still slow adopters according to the interviews conducted for this survey. Even with high smartphone penetration in cities like Yangon, Myanmar people in many rural areas have yet to catch up. This will become easier once more content in the Burmese language is available.

In terms of use, start-ups in recent years have been using Facebook for trading and taking advantage of the free advertisement platforms to boost trade. But this approach has limits and more and more businesses, start-ups, are migrating towards existing platforms or developing their own applications. They can be helped in that process by business accelerators (if they qualify and can meet all criteria) or can contract services to develop their own digital strategy. For example, Cube Digital (http://www.mmcube.com/) specializes in digital strategies that add a social and development dimension through advocacy and outreach. Itself a Burmese tech start-up, it specializes in digital products, bringing positive digital disruption to the market, taking businesses from an offline model into a digitally relevant model (see www.yoteshingo.com, Myanmar's first independent movie platform, with pay per view options).

Among the most popular e-commerce websites, those selling retail products (mobile phones, IT gadgets and kitchenware), airlines and hotels websites, news (in particular video contents in the Burmese language), classified ads and job portals are the most widely used. The most popular B2C e-commerce platform in Myanmar currently is Shop.com.mm (which recently merged with Kaymu.com.mm). Products sold through Shop.com.mm include cosmetics, medicine, clothes, furniture, electronic household products, computers, mobile phones, gems and jewellery. It has its own delivery team and it also works with other local delivery companies with an aim of shipping goods quickly to its consumers and it also allows for product returns in case consumers encounter problems with their use. It also collaborates with Myanmar Post for long-distance shipments. Currently its customers are able to pay either COD, or by a debit / credit card through a POS machine. Other platforms include BaganMart, ZawGyiMart, Shwe99 and Yangon Bay.

3. TRADE LOGISTICS AND TRADE FACILITATION

> **Logistics and trade facilitation issues are multifold in Myanmar, a country affected by under-investment in transport infrastructures for decades. Technical assistance provided over the past five years have helped addressed both physical and regulatory challenges, at national and state (regional) levels. E-commerce is still limited to urban centres –Yangon and Mandalay primarily– using traditional transport means like public bus systems for deliveries. The recent and gradual liberalization of delivery services through partnership with third party logistics provides–after decades of strict monopoly by Myanmar Post for mail and small parcels–have enabled the development of a small e-commerce logistics market. Cross-border e-commerce is still nascent, but concerns over the weak customs clearance capabilities have started to emerge among importers and exporters.**

3.1. Mode of delivery, last mile delivery

Deliveries of goods purchased online suffer from the same barriers commonly found in LDCs surveyed by UNCTAD, including lack of a physical addressing system and regulatory constraints affecting postal deliveries of small parcels.

(1) Physical addressing system / post code:

Myanmar does not have a national address system or a postal code system, creating bottlenecks for goods deliveries. The Government postal service is regarded by the population as not very reliable or fast. Myanmar ranked 126th out of 170 countries in the 2016 Integrated Index for Postal Development (2IPD)[9] developed by the Universal Postal Union (UPU), a specialized United Nations agency for the postal sector. There is a national tracking system but the national and international segments are still not matching. Countrywide, other forms of delivery (e.g., express buses) are seen as much more reliable and cheaper than postal services (While their main business is transport of passengers, they also ship packages at a very low cost). This is about to change however, thanks to the forward-looking vision of The Myanmar Post. The Myanmar Post is building its own e-commerce platform, for both e-payments and tracking system, with UPU supporting Myanmar Post with cross-border tracking system.

(2) Regulatory issues:

The magnitude of problems faced by Myanmar Post in its quest to better serve the population is multifold. In addition to physical infrastructure problems, the

Myanmar Post faces legal and regulatory problems, which sometimes are beyond its control. For instance, The Myanmar Post needs laws and regulations for the registration of e-commerce shop owners, which do not exist yet.

The Myanmar Post law adopted in 1998 is currently being revised. After the adoption of the new law, it is expected that new services could be liberalized allowing private sector firms to deliver mail and packages. However, for the time being, the corresponding regulations remain unclear, according to the interviews made for this assessment. An example of the grey area in which the Myanmar Post finds itself, now reported by private companies interviewed, is that of handling transport-related complaints. Since Myanmar Post is the entity delivering door-to-door goods to customers, if there is an issue with the quality of the goods (damage, goods being different from the one ordered), the customers would come and complain to Myanmar Post, even though the issues are not related to postal services. Another example of unclear regulations is the weight limit below which logistics service providers are not authorized to deliver.

Notwithstanding the above, more than 100 online shops have registered at Myanmar Post. By registering, the firms indicate that the goods they sell can be delivered using Myanmar Post services. However, the Myanmar Post needs to ask them at least for the licence to sell online, which they usually don't have. This licence should be given by local authorities, such as the Yangon City Development Committee (YCDC) for Yangon. The licences are usually expensive and most MSMEs can't afford them.

Because of the constraints mentioned above, the Government is allowing logistics companies to deliver goods by providing licences. According to the law, the

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[9] *The final overall 2IPD score is the linear combination of the reliability, reach, relevance and resilience scores, each weighted equally*

Myanmar Post is the only organization that can do the door-to-door delivery so the requests for these private companies to do this business need to be submitted to the Cabinet. For the private companies these procedures are very expensive, so many companies are doing it illegally or are informal, not only in Yangon but also in other cities.

For the intra-cities deliveries, e-commerce merchants rely on other services such as trains and planes, but again these transportation companies are not reliable. The express buses are doing this service on their own, and they do not deliver door-to-door. They only deliver from one bus station to another.

Overall, it was widely recognized among interviewees that there is a need for a wider logistics policy to be put in place that will allow for private sector operators to act based on clear and transparent regulations.

(3) Modes of delivery (in urban areas)

While across the Southeast Asia, motorcycles remain the most popular choice for transport and delivery of goods ordered online, they are banned from urban areas in Myanmar, where traffic is very bad. The solution for the last mile delivery is being provided by a score of local third-party logistics providers, for instance Yangon Door2Door, a start-up delivering food on bicycles, Smooth Delivery Services and Phya Kalei delivering goods using vans and bicycles. Taxi vehicles are being used increasingly in Myanmar as a solution for fast and reliable shipments. Uber has recently entered Myanmar's market (using existing taxi vehicles to deliver its service and not relying on the credit card payments only).

Box 1: Yangon Door2Door and the challenges of delivery platforms

Yangon Door2Door is the leading online food ordering and delivery service in Yangon. Its website YangonD2D.com hosts menus from a broad range of roughly 200 Yangon restaurants. Customers may view menus and place orders for delivery to home or office via the website. Yangon Door2Door relays the orders to the appropriate restaurant, picks up the completed order from the restaurant, and delivers the items to the customer. Customers can also schedule a pickup for their orders from restaurants. The service fee is 5,000 Kyats (US$3.99) or 15 per cent of the value of the order.

Deliveries are predominantly through bicycles, ensuring a greener, faster and more efficient delivery service (NB: no delivery can be carried out by motorbikes: since 2003, a ban has been in place that prohibits motorbike use in the 33 townships administered by Yangon City Development Committee. The prohibition was officially put in place for safety reasons).

While COD is the predominant mode of payment, the company introduced debit and credit card payments in 2017, equipping delivery messengers with Point-of-Sale technology. Next, both at the request of customers and to keep its competitive edge, the company seeks to introduce online or mobile payments, taking advantage of the different payment gateways introduced lately.

The company was launched in 2013 by Shady Ramadan, who saw a niche market when he realized that he could not get his favourite food delivered to him on time, on top of the costs associated with picking up food from restaurant. The challenges the company had to face at the beginning were numerous, but not necessarily linked to rules and regulations, but more to cultural habits:

- low penetration of Internet and mobile phones,

- people in general and potential employees in particular would find bicycles a dangerous mode of transport,

- clients insisting on getting tax stamps[10] as is customary from "brick and mortar" companies,

- messengers and customers believing in cash only (with huge costs associated to handling cash for the company), making it difficult to convincing both to switch to cashless payment solutions

- lack of IT and ICT skills among new employees.

There is still a lot of room for company like Yangon Door2Door and the delivery and logistics sector to grow and generate further employment: better traffic law enforcement, better findability of places, a broader e-commerce ecosystem perception change, and, possibly, the introduction of electric bikes.

Source: Interview of Shady Ramadan, CEO, Yangon Door2Door

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[10] *Myanmar's 1899 Stamp Act is still in force and covers nearly all business dealings. Stamp duty arises if a business instrument is signed or received here, or relates to property or transactions located in the country. Non-payment of stamp duty is a criminal offence punishable by a fine of up to K500,000 (US$375). A document that does not bear a stamp to show that duty has been paid is not admissible as evidence in a contract dispute.*

3.2. Regulatory issues at Customs

Slow adoption of international best practices, including the WTO TFA, affects the capacity of customs to absorb the potential surge of cross-border e-commerce. Automatization of customs procedures, digitalization of key trade documents and payment of customs fees are all included in plans to modernize Myanmar Customs and improve Myanmar's logistics rankings overall. The Framework Agreement on Facilitation of Cross-border Paperless Trade in Asia and the Pacific[11] can provide Myanmar with a unique opportunity to improve its capacity and better engage in cross-border e-commerce.

For international e-commerce transactions, Customs clearance is perceived as a severe bottleneck, due to a lack of modernization and very limited use of ICT in goods clearance (see Figure 4), in spite of recent reforms introduced with the Myanmar Automated Cargo Clearance System (MACCS). Myanmar does not yet compare well with regional neighbours in terms of efficiency of border crossing procedures (see Table III).

Figure 5: Myanmar Trade Facilitation and Paperless
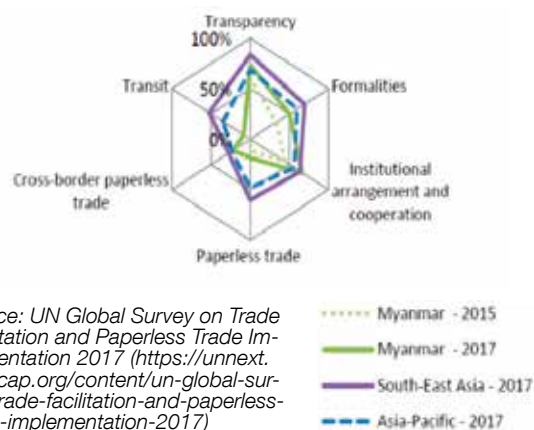
Source: UN Global Survey on Trade Facilitation and Paperless Trade Implementation 2017 (https://unnext. unescap.org/content/un-global-survey-trade-facilitation-and-paperless-trade-implementation-2017)

Main complaints mentioned by respondents to the UNCTAD questionnaire point to the practice of not trusting the declared value of goods and expressed package. While there is a de-minimis rule of US$50[12],

[11] *http://www.unescap.org/resources/framework-agreement-facilitation-cross-border-paperless-trade-asia-and-pacific*

[12] *In practice, Myanmar has a favourable de-minimis regime, as the current threshold is US$500, the highest among ASEAN member states. Goods valued at US$500, except restricted goods, are not subject to import licensing (source: ASEAN Secretariat, 2016). However, in relation to Customs duties and taxes, Myanmar Customs introduced a US$50 de minimis on April 1, 2017, applicable only to express consignment cargo.*

it is common that the customs officers open all the parcels. They usually want to inspect the goods, ending up in changing the given goods value, which is very inconvenient and takes lot of time, or the value is likely changed, either because of an inconsistency in the actual volume or a change in the tariff classification, i.e. the goods are being categorized as a different type of goods than declared in the declaration.

Table III: Trading across borders in Myanmar and in other regions			
Indicator	**Myanmar**	**East Asia and the Pacific**	**OECD High Income**
Border compliance			
Time to export (hours)	142	55.9	12.7
Cost to export (US$)	432	387.5	149.9
Time to import (hours)	230	70.5	8.7
Cost to import (US$)	457	431	111.6
Documentary compliance			
Time to export (hours)	144	68.2	2.4
Cost to export (US$)	140	112.1	35.4
Time to import (hours)	48	65.6	3.5
Cost to import (US$)	210	111.4	25.6

Source: Doing Business in Myanmar 2018 Report ("Trading Across Borders" category), The World Bank

Customs is currently undergoing modernization that should have been fully implemented by the end of 2017. With the support of the Japan International Cooperation Agency (JICA), Myanmar's Customs has embarked on an important modernization process. The Myanmar Automatic Cargo Clearance System (MACCS) is based on the Japanese Nippon Automated Cargo and Port Consolidated System (NACCS) and the Customs Intelligence Database System (CIS). This program is expected to significantly reduce the amount of manual document checking through an automated document verification process (reviewing information, valuation, and electronic payment of import duties) and the introduction of risk management for cargo inspection and capability to track cargo during the customs clearance and inspection processes. This initiative is crucial in improving efficiency and certainty in the customs clearance process. MACCS is perceived as a predecessor to a full-fledged National Single Window and its implementation will largely contribute to the implementation of commitments made by Myanmar under the World Trade Organization (WTO) Trade Facilitation Agreement (TFA).

Myanmar Customs has actively participated in the development of the Framework Agreement on Facilitation of Cross-border Paperless Trade in Asia and the Pacific. This is a UN treaty adopted in 2016 in support of digital trade facilitation. The treaty intends to facilitate cross-border exchange and legal recognition of electronic data and documents among single window and other paperless trade systems. The treaty features strong capacity-building provisions to help least developed countries and land-locked developing countries better prepare for cross-border e-commerce and paperless trade.

Box 2: De minimis value

De minimis is the minimum dollar value of qualifying goods for which formal customs procedures are not required and duties or fees are not collected, subject to certain legal requirements and exemptions. This value is a significant step in facilitating global trade because importers benefit from reduced costs as the *de minimis* value increases.

The *de minimis* value impacts more than just duty and fee collections. A higher *de minimis* can accelerate shipment delivery and improve business efficiency by expediting customs procedures and border clearance for certain shipments. These commercially meaningful thresholds make it easier to import low value goods which can lead to increased orders and more repeat customers.

Equally important, a higher *de minimis* reduces documentation requirements for qualifying shipments, even though some government agencies in import countries for certain types of goods may still require specific data to be submitted with certain shipments or may decide that *de minimis* does not apply to a shipment, regardless of value. However, in many cases, businesses benefit from less paperwork along with decreased customs compliance costs. This equates to lower overall costs borne by the importer, lessens the barrier for small to medium businesses to engage in e-commerce and reduces the time it takes to get a product to market.

Last, in particular for developing and Least Developed Countries (LDCs) that are collecting most of their revenue through taxes and duties at the time of import, higher "de minimis" values theoretically reduce the overall national revenue collection. It also risks making national retailers and stores less competitive, at least in the short term.

Source: World Customs Organization (WCO), United Parcel Service (UPS)

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4. PAYMENT SOLUTIONS

Myanmar, predominantly a cash economy, is taking giant steps towards becoming a cashless economy, although the journey will be long and arduous. While the banked population is very limited, and not using banking services more than once a month for the majority, several cashless solutions, by banks, by telecom operators and payment services providers have appeared and gained in popularity over the past few years. Cash-on-delivery (COD) remains the main method of payment, but e-commerce vendors, in particular in Yangon and Mandalay, have started to integrate cashless solutions in their offer. Mobile telecom operators are competing in this narrow segment by offering affordable e-wallet and cashless mobile solutions to their growing clientele. Trust in cashless solutions is still very low among the population in general.

4.1. Banking penetration and financial inclusion

The financial and banking system is still under development in Myanmar, despite recent progress. This is mostly due to the embargo facing Myanmar banks until 2012. Banks already had a lot of catching up to do with normal banking and trade finance, when mobile payments started appearing in Myanmar.

According to the data found in the United Nations Capital Development Fund (UNCDF) "Making Access Possible" (MAP)[13], financial inclusion in Myanmar is still very low:

- Percentage of adults who have higher education: seven per cent

- Percentage of adults with a bank account in their name: five per cent

- Percentage of adults who don't have formal access to credit, deposit and other financial

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[13] *Source: "Making Access Possible (MAP) - Financial Inclusion Diagnostic and Financial Inclusion Roadmap" (2014-2020), UNCDF, 2016*

services, such as insurance and remittances: 70 per cent

- Percentage of adults using at least one regulated financial service: 30 per cent

- Percentage of adults using unregulated financial services: 33 per cent

- Credit has the deepest reach (19 per cent formal access), while other products are underdeveloped, especially insurance (three per cent) and savings (six per cent).

The majority of citizens rely on unregulated providers or family and friends to meet their needs for financial services (see Figure 5). The cost of services provided by unregulated providers is usually substantially higher than those offered by regulated providers. UNCDF also found that rural areas are slightly better served than urban areas. This is the result of targeted credit provision to rural areas by state financial institutions coupled with a nascent commercial banking sector. Microfinance institutions, operating under a legal framework since 2011, have made some headway and currently serve 700,000 clients.

Figure 6: Financial inclusion levels by main market segments

	Formal	Informal	Self/friends	excluded
Total market	30%	21%	30%	19%
Farmers	43%	16%	27%	14%
Formal enterprises	38%	16%	32%	13%
Informal enterprises	25%	27%	31%	17%
Formal consumers	43%	18%	19%	20%
Informal consumers	15%	30%	32%	23%

Source: UNCDF Financial Inclusion Roadmap

According to UNCDF[14], an estimated 9.2 million adults have a loan from an unregulated financial services provider with an estimated total outstanding debt as high as K 5.4 trillion (US$5.7 billion). The total outstanding debt provided by unregulated money lenders is estimated to be as high as K 3.7 trillion (US$3.9 billion).

Digital financial inclusion is essential to economic development in emerging markets such as Myanmar. It was considered the most important factor for e-commerce development in Myanmar according to both public and private sector respondents to the survey (see Figure 6). Digital financial services

in Myanmar could bring millions of people into the financial system formally, providing them access to secure, regulated, reliable services. This could start with using mobile payment options, as usually in other LDCs assessed, the pattern taken by these markets is that mobile financial services start with mobile money transfer payments, forming the first backbone of financial inclusion. People don't need to have too much faith in the banking system to send money back and forth to one another. But once they see that a company makes good on its promises they are likely to use its services. Mobile transactions also create records that people can use to eventually obtain credit and build up savings for investments. Regular, on-time payments to utilities companies or e-commerce subscriptions signal consumers' abilities to repay loans or build savings.

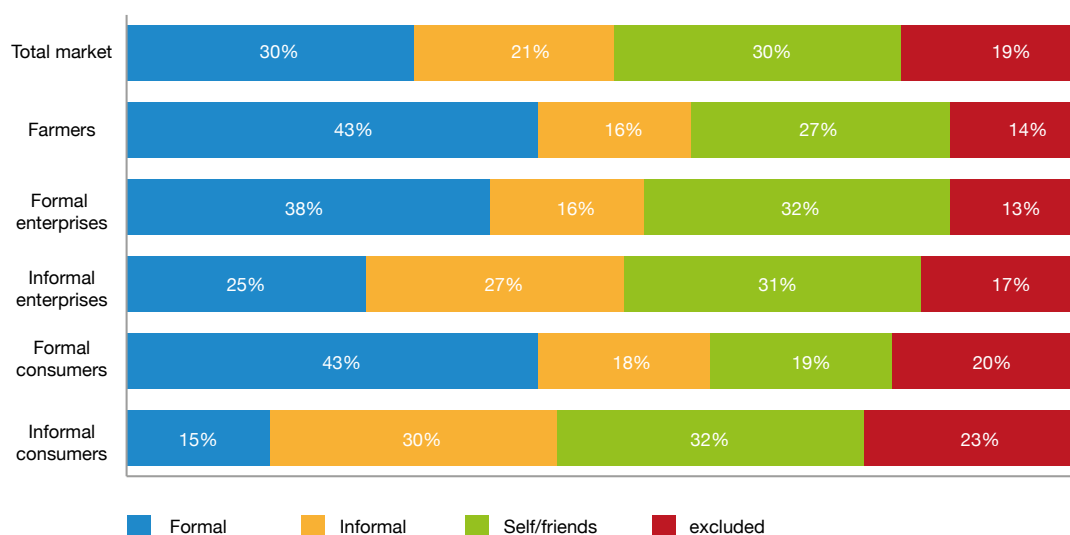[14] *Source: "Making Access Possible (MAP) - Financial Inclusion Diagnostic and Financial Inclusion Roadmap" (2014-2020), UNCDF, 2016*

4.2. Financial regulations

Weakness in bank interoperability, persistent regulatory constraints, and lack of efficiency and know-how in the supply of trade finance instruments led most of the main e-commerce importers and exporters to seek alternative modes of payment and financing.

Weaknesses in bank interoperability and in the switch between banks and mobile payments operators are pervasive. For instance, it is not yet possible to make payments from banks to mobile and vice versa. The banks have not been proactive in helping the interoperability function, hence the difficulties still encountered today in making interbank payments.

As a result, Myanmar's ICT service providers–mostly SMEs–often prefer to locate in Singapore or Thailand, which offer easier channels for international transfers, in addition to good infrastructure and more conducive regulatory requirements. One of the most common practices is the use of a parent company registered in Singapore or Hong Kong (China) to act as an intermediary with trading or banking counterparties. Using remittance channels normally used for the transfer of savings by Myanmar workers established in the region is also common practice for imports of goods. These practices mobilize a fair amount of cash, and therefore are affordable for companies of a certain size.

In 2016, Myanmar's central bank (CBM) introduced rules on mobile financial services, inspired by those in countries such as Kenya. The CBM undertook two major reforms in this area: (i) enacting the Mobile Financial Services Regulation in April 2016, and (ii) enabling licensing of mobile network operators (MNOs) to provide financial services using mobile platform.

4.3. Main mobile, cashless payment solutions available

Innovations introduced by non-financial service providers, although sometimes operating in a grey market area, have facilitated the creation of cashless payment solutions, as banks fail to catch up with growing demand for modern banking services.

As with other LDCs surveyed by UNCTAD (Bhutan and Cambodia in 2016, Nepal in 2017), cash-on-delivery is the most popular form of delivery and payment. There is no formal market research on this yet, but COD possibly enjoys 95 per cent of the gross merchandise volume in the country, as indicated by the e-commerce players interviewed for this assessment.

This is mostly explained by the inefficiency of the banking sector. Still today it's not possible to transfer money from one bank to another. Recently, check transfer has become possible. Wealthy individuals and SMEs in general have bank accounts in all the banks so it is easier to get money transfers and to buy goods online and offline at any merchant.

Figure 7: Most important factors for e-commerce development

What is the most important factor for e-commerce development in Myanmar
(number of occurrences)?
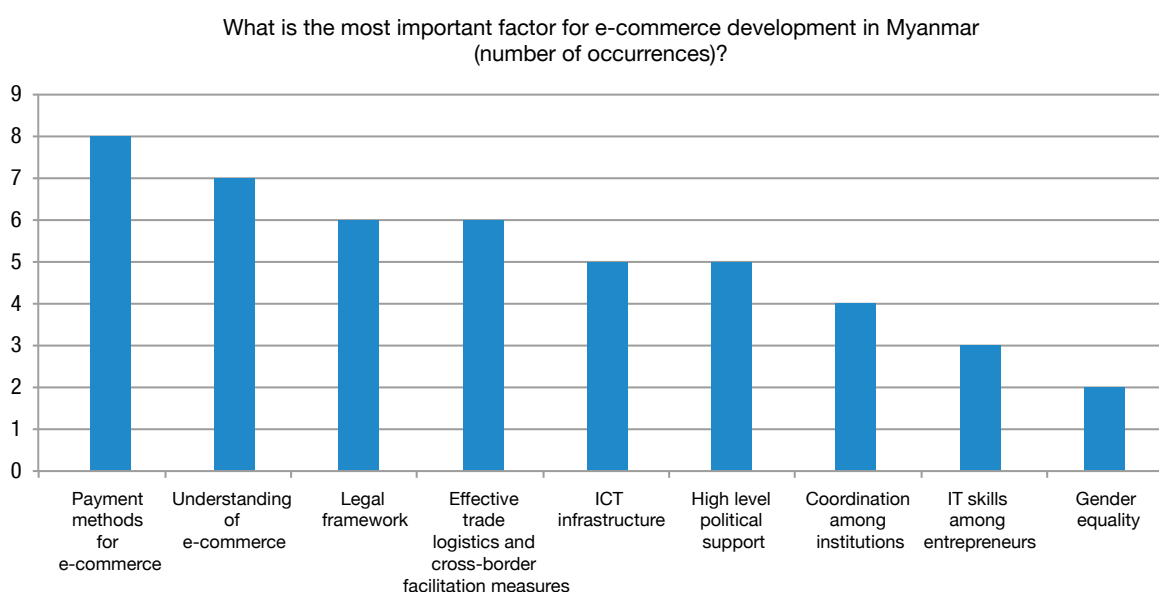
Source: UNCTAD

The banking sector is perceived as being too conservative. Banking hours are very limited and ATM machines, as well as branches, are too scarce in the country. Several banks in Myanmar have agreements with VISA, Mastercard, American Express and JCB, but some are still blacklisted by the US Treasury, which makes it impossible for them to work with VISA, Master Card and PayPal. Despite this, more and more e-commerce players, notably in Yangon and Mandalay, have added Point of Sale (POS) payments, mobile payment and e-wallet/cashless solutions payment to their offer. This can be partly explained by the recent boom in cashless solutions made available to e-commerce shoppers as detailed below.

Myanmar Payment Union (MPU) is a financial services corporation headquartered in Yangon. It provides bank card services and a major card scheme[15] in Myanmar. MPU was founded on 15 September 2011 with total of 16 members from both state- and privately-owned banks, and expanded to 23 members in 2015. The MPU aims to transform Myanmar from a cash-based to cashless society by harnessing an interbank electronic payment network among member banks to perform payments and linking with an international payment system like the APN to conduct transactions. When it first started, its purpose was to provide the ATM and POS (Point of Sale) switching services among the banks. MPU Cards are accepted in most local banks. MPU has approximately one million users. Service fees are two to three per cent of the transaction. However, MPU cards can currently only be used to withdraw money at the ATM and make payments on POS devices.

Myanmar will become a member of the Asian Payment Network (APN), which was established to create a common payment settlement platform within the Asia-Pacific region. The APN was formed in 2006 by the central banks of Indonesia, Malaysia, Singapore and Thailand with a view of establishing a cross-border settlement network in Asia. That network has since expanded to a total of 10 countries, including the Philippines and Vietnam in the ASEAN region, as well as China, South Korea, Australia and New Zealand. APN is also working on standardizing ATM services,

such as cash withdrawals, payments and balance enquiries. It is also seeking to apply the system to debit and credit card payments, money transfers and mobile banking services across member countries. When Myanmar becomes a member of APN, it will have the opportunity to utilize the network's card system for payments involving cross-border trades between Asian countries.

In order to join the APN, each country needs to have established a national-level payment switch. A Payment Switch is a system that can interface with any Point of Sale system, ATM, mobile payment system and e-commerce portal, consolidate all electronic transactions and then intelligently channel them to a payment processor for authorization and settlement. In Myanmar, the MPU will operate as the National Payment Switch.

MPU and 2C2P[16] (Cash and Card Payment Processor) have developed and implemented Myanmar's first online payments platform. The platform provides MPU card holders the opportunity to make online payments for their online purchases. The payments can be made also for the orders from abroad. Around 100 merchants, mostly start-ups, have been registered as of December 2017 (e-commerce start-ups have agreed to link their application programming interface (API) because the process for credit card support is quite complicated). Since MPU involves both public and private banks, and because the card is widely used, notably by the Yangon middle-class, there is hope that the MPU cards could be widely used within private sector businesses and becomes the payment card standard.

For most SMEs interviewed during this assessment, Fintech[17] holds the key to Myanmar's payment future: for most, if banks and telecom companies could reduce their service fees, provide better infrastructure and simplify the procedure for connecting with payment gateways, the hassle of cash payments and cash handling could be eliminated.

The very high mobile phone penetration and, even more so, the explosion in the use of smartphones means rudimentary financial offerings are appearing where even roads are rare. High mobile penetration

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15 *Card schemes are payment networks linked to payment cards, such as debit or credit cards, of which a bank or any other eligible financial institution can become a member. By becoming a member of the scheme, the member then gets the possibility to issue or acquire cards operating on the network of that card scheme (source: Wikipedia).*

16 *2C2P IS an e-commerce payment company registered in Singapore (founded in 2003 by Aung Kyaw Moe, an entrepreneur from Myanmar, based in Singapore.*

17 *Financial Technology, nowadays better known under the term 'fintech', describes a business that aims at providing financial services by making use of software and modern technology*

in the country seems like an ideal precondition for an uptake of mobile payment solutions that could be done via smartphone, eliminating thereby a need for a bank account. AGD Pay, WaveMoney, MyPay, MPPS, Red Dot network, 2C2P and OK Dollar have introduced mobile payment solutions in Myanmar, following the issuance of regulations by the CBM in 2016.

Wave (backed by Yoma Bank, Myanmar's fourth-largest bank, First Myanmar Investments and Telenor) was the first company to register under the new CBM regulations in October 2016. It uses the details associated with a customer's SIM card to satisfy identification requirements. Besides offering the opportunity to send money to their relatives within the country, the platforms offers an opportunity to make online mobile payments to e-commerce companies that have registered as 'Wave Shops'. Sign-up and user-to-user transfers are free, though people pay a small percentage for cash-outs. For example, a 50,000 Myanmar Kyats (US$39) cash-out would carry a 1,000 Myanmar Kyats (US$0.78) service charge. Wave has yet to turn a profit, despite processing almost 100,000 transactions a month. Its focus so far on spreading its name, and raising awareness of what it does. Wave Money is considered as "the most legal provider" since they received the first licence and they have a truly business licence. Wave Money Many uses a network of 12,000 agents scattered throughout the country. This is providing a very useful service, since rigid business hours mean that people often have to skip work to stand in queues at the bank instead.

Telenor's main competitor in the mobile telephony market, Ooredoo, launched a similar service called M-Pitesan to facilitate payment services in October 2017. Its current priority is to try and establish a network that is broad enough to end the demand for cash and put more e-money in circulation. That would facilitate other operations as well, not only money transactions.

2C2P is very actively offering other financial solutions in Myanmar. It launched recently first electronic bill payment system called easyBills; it also launched Myanmar's first prepaid card with a real-time mobile app called the Citizen Card. Finally, 2C2P also recently started iACCEPT, a mobile point-of-sales system (mPOS), together with MasterCard, Visa, Myanmar Citizens Bank and Myanmar Hotels International. Recently, 2C2P entered a partnership agreement with UnionPay International (UPI), a subsidiary of China UnionPay to provide UnionPay Online Payment (UPOP), an online payments service.

All of these efforts will contribute to furthering the development of Fintech solutions in Myanmar, creating competition for the risk-averse banking sector. For this to happen on a broad scale, Fintech organizations will need to establish trusted distribution networks. Agents will be on the front lines of earning consumers' trust and educating them about mobile financial platforms. Paying bills, making tax payments, and purchasing products will spur adoption of Fintech products and therefore financial inclusion.

5. LEGAL AND REGULATORY FRAMEWORK

> **E-commerce supportive laws and regulations are not yet in place, though slightly outdated cybersecurity and e-transaction regulations were passed more than 10 years ago. The recently passed consumer protection law will be updated soon to integrate online consumer protection. Banking regulations are outdated due partly to the sanctions and restrictions that affected Myanmar until 2012, limiting the use of international debit and credit cards. Business friendly laws, acts and regulations have been enacted in the past two years, reassuring investors, with a positive impact on the development of a supportive legal and regulatory framework for e-commerce.**

The enactment and enforcement of relevant legislation in a way that promotes regional integration are critical steps in this context. Among developing countries, the ASEAN has been pioneering the harmonization of such legislation. However, while the legislative process takes time, the ICT landscape continues to evolve at a rapid pace. This makes it important to continuously take stock of progress made and to identify possible needs for further work and revision (Box 3).

5.1. Current legal framework

The Myanmar legal and regulatory framework for business and development is catching up, but e-commerce related laws remain outdated for the most part.

Myanmar adopted the Computer Science Development Law in 1996 (No. 10/96) and the

Electronic Transactions Law in 2004 (No. 5/2004)[18]. Whereas the country has indicated strong interest in e-government initiatives and is encouraging electronic payments for several government services (see Figure 7), such as those related to imports and exports, the legal framework needs to be revised and updated.

In 2013, the Government officially formed an interministerial committee which includes some private sector representatives, national and international IT and legal experts to work on drafting the new e-commerce law. But progress on e-commerce law formulation has been very limited. The Ministry of Commerce is currently receiving support from the World Bank to reinitiate drafting of an e-commerce law, but no draft was available yet at the time of production of this report.

Separately, the Government, using the thrust of the e-Governance Master Plan 2016-2020, has started to work on drafting an ICT law with the support of the World Bank. It acknowledged that, despite the development of ICT and application of computer technology in government administrative mechanism

in existing law, the principal tools to support the development of e-government system are not yet included in standing laws. Therefore, the Government through relevant ministries vowed to revise and include the clear definition of the characteristic and purpose of e-Government in the standing law or to constitute new legislation.

It also stipulated that the following aspects/sections should be included in the newly constituted or revised ICT law:

a) Using coded message for dispute and electronic verification signature

b) Intellectual Property Rights

c) Protection of major infrastructure

d) Cybersecurity/Cybercrime

e) Ethic and legalities for using the social network

f) E-commerce (e.g. electronic payment)

g) Privacy and data protection

h) Conflict resolution

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[18]   *unctad.org/cyberlawtracker*

Figure 8: Most important regulations for e-commerce development

Do you agree that government regulations in the following areas are important to enhance trust in e-commerce?
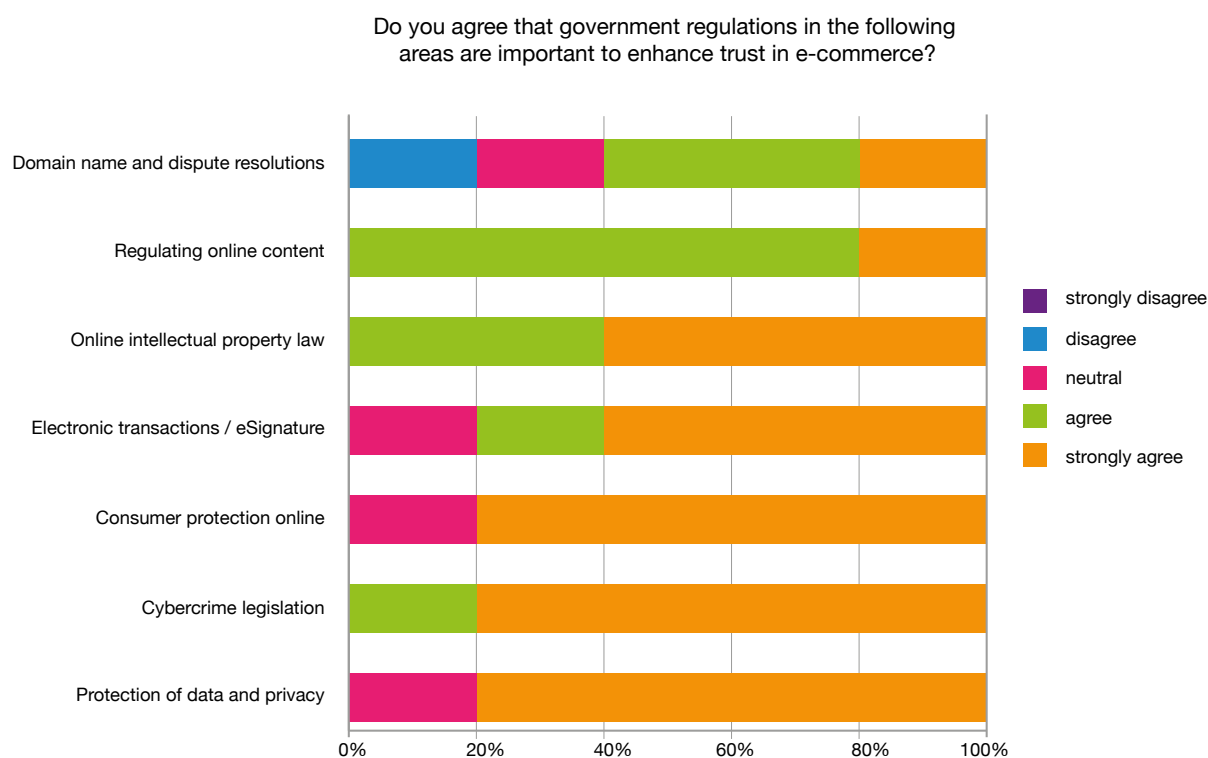
Source: UNCTAD

The Electronic Transactions Law of Myanmar (2004) adopted a media-neutral approach in regulating electronic contracts. In addition to creating electronic legal equivalents for the concepts of records, signatures and communications, the law introduces a number of cyber offences and sets up several regulatory bodies, including the Central Body of Electronic Transactions–entrusted with implementing the legislation–and the Electronic Transactions Control Board, to look after the day-to-day regulation of electronic signatures. The law introduces the institutional framework for implementation of the Law and some of the e-commerce relevant concepts including e-signature, but is very general and needs an update. The 2014 amendment of the law mostly revised some penalty provisions that were deemed as too harsh.

The new Consumer Protection Law introduced in 2014, is divided into 12 chapters and includes provisions on the rights and responsibilities of both producers and consumers. However, it does not deal specifically with situations encountered by consumers online. Because these situations are quite specific, they need to be included in any revision of this Law or in other omnibus pieces of legislation.

There is no cybercrime law in Myanmar. There are some provisions in the Electronic Transactions Law that cover hacking, intercepting communications, giving access to a communication without the permission of the originator, and misusing the electronic signature of another person without their consent. Chapter XII of the Electronic Transactions Law of Myanmar 2004 contains several offences that can be committed using technology to complete electronic transactions. These include (i) hacking or the dishonest modification or destruction of electronic records; (ii) intercepting a communication or giving access to a communication without the permission of the originator, (iii) communicating with another person using the electronic signature of that person without their consent and (iv) creating or modifying information or distributing this information such that it causes detriment to the interest or lowers the dignity of an organization or person (section 34(d)).

The content regulation of Internet activities in Myanmar is addressed in two pieces of legislation, namely in the Computer Science Development Law (from 1996) and in the Electronic Transaction Law in a way to restrict or punish distribution of content that is perceived by the Government to be harmful to the interests and dignity of persons or organizations. Section 28 of the Computer Science Development Law prohibits an individual from setting up access to a computer network without the approval of the Ministry of Communications and Information Technology. Section 26 of the Computer Science Development Law limits access to computers by only allowing access to a computer if prior approval of the Ministry is obtained. Computers used as an aid for teaching or doing business are exempted from this section. Subsection 34(d) of the Electronic Transactions Law also makes it an offence to create, modify or distribute information by electronic means that is detrimental to the interest or lowers the dignity of a person or organization.

There is currently no privacy and data protection law. The Telecommunication Law (2013) requires providers to maintain securely the information and contents that are transmitted or received through its telecommunication services, as well as confidential personal information of users. The same law forbids disclosure of information kept in secured or encrypted systems without a court order. A comprehensive data privacy law needs to be developed in Myanmar. The recently introduced Law Protecting the Privacy and Security of Citizens (March 2017) does not include provisions on data privacy and security online

5.2. Other related laws, acts, regulations

Regional commitments under the ASEAN Economic Community (e-ASEAN framework, AWPEC) have forced Myanmar to accelerate the pace of legal reforms lest it loses out on investment opportunities to other ASEAN member states.

The Posts and Telecommunications Department regulates Myanmar's telecommunications industry under the Ministry of Transport and Communications. The Telecommunications Law mandated the creation of an independent commission to take over regulatory functions within two years (by 2016), but this had not happened at the time of the production of this report. The Government has produced several pieces of legislation in recent years, which underline their intention to further liberalize the Telecommunications sector.

At the regional level, besides the e-commerce provisions in its FTA with Australia and New Zealand, ASEAN is also negotiating an e-commerce chapter in the proposed Regional Comprehensive Economic Partnership Agreement (RCEP); the issues under negotiation seem to include rules to enable information

flows, prohibit data localization, allow the cross-border provision of services, encourage the growth of online businesses, make it easy for SMEs and users to get online, and enable the use of simple online payment systems. In addition, the EU is currently negotiating bilateral deals with ASEAN countries, including on e-commerce, with the aim of concluding an ASEAN/ EU RTA on the basis of these individual deals. Myanmar would need to accelerate reforms of its legal and regulatory framework to fully benefit from the RTA negotiations with EU and other partners in the future.

Myanmar may also accede to the Framework Agreement on Facilitation of Cross-Border Paperless Trade in Asia and the Pacific, which is expected to help the country meet its e-commerce commitments (e.g., on paperless trading and single window implementation) in RTAs and other agreements.[19]

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[19] *See Ha et al. (2017). Available at: http://www.sawtee. org/publications/Trade-Insight38.pdf*

Box 3: UNCTAD and ASEAN cooperation on the e-commerce legal framework

UNCTAD has been assisting in building the capacity and prepare e-commerce legislation since 2003 with the organization of regional workshops and the preparation of the Review of E-commerce Legislation in the ASEAN, which proposed specific recommendations intended to serve as a basis for ASEAN to consider the next steps in its efforts to creating a harmonized legal framework for e-commerce in the region. The last UNCTAD/ASEAN Workshop on E-Commerce was organized in Manila, The Philippines in November 2017. The aim of the workshop was to assess ASEAN's efforts at developing e-commerce in the region so as to promote its growth both domestically and regionally. It was also an opportunity for coordinating the efforts and sharing best practices among the various stakeholders. The workshop sought to generate ideas on how to reconcile domestic processes and regional processes in the development of e-commerce. The workshop also explored how enhanced cooperation among ASEAN Member States, UNCTAD and other international organizations could enable e-commerce to serve as a means of promoting development and thus contributing to the achievement of the Sustainable Development Goals.

The UNCTAD/ASEAN workshop came up with the following recommendations regarding legal and regulatory frameworks:

- Consider the review of existing legislation or the adoption of new legislation with a view to harmonizing and modernizing it as appropriate to foster domestic and cross-border e-commerce.

- Organize regional workshops on thematic topics as required (e.g. consumer protection, online dispute resolution, online intermediary liability, cybercrime, cross-border data flows, the role of digital platforms, intellectual property rights, competition, etc.) to share good practices and learn from international experience.

- Provide training to strengthen the capacity of policy/law makers, parliamentarians, the judiciary and law enforcement agencies.

- Leverage partnerships with relevant international organizations for capacity-building.

- Update the database at the regional level of existing laws and regulations for e-commerce.

- Explore the possibilities of developing an ASEAN Regional Framework on cross-border data flows.

Source: UNCTAD

6. E-COMMERCE SKILLS DEVELOPMENT

> Use of mobile phones and the Internet in general is most exclusively focusing on communication with friends and families and access to social media. Universities and training providers are not yet able to provide much needed e-commerce skills (web development, application development, content manager, digital products development). Tech start-ups are importing skills from the Burmese diaspora living in Singapore, complemented by on-the-job training and support by a growing number of business incubators and business accelerators.

6.1. Skill gaps identification

An IT savvy young population is changing ways that ICT is used in everyday life and business activities.

As a result of the rapid technological progress in ICT, Information Technology-enabled Services (ITeS) are an increasingly important area of business services in Myanmar. ITeS include services directly related to information technology, including software development, system integration and webpage design. Trade in ITeS still represents a small share of total exports of most developing countries, like Myanmar, and only a handful have developed sizable, export-oriented ICT and ITeS subsectors.

Myanmar's large, dynamic and talented youth offers a solid starting point for IT services within the region. Thanks to the important Myanmar diaspora living in Singapore, who acquired first-world ICT skills by moving to Singapore, a large number of IT services, such as mobile apps and computer software developed in Singapore, are in fact developed by Myanmar-owned businesses. These businesses are established or conduct operations through Singapore due to

limitations in infrastructure, the regulatory environment, or difficulties in processing international payments in Myanmar. While the whole region faces important challenges in this area, Myanmar is still ranked above countries such as Cambodia and Lao PDR, both of which now have small domestic IT services industries. However, poor telecommunications infrastructure and a weak regulatory environment are holding back the subsector's overall competitiveness (DTIS 2016).

On a more general scale, print media, TV and radio have familiarized keywords such as e-commerce, online shopping, e-market and e-learning. Despite these interesting factors, ICT and e-commerce skills–in the general population, in businesses and in government–are still under-developed. Initiatives by foreign NGOs are underway to accelerate adoption of smartphones and, eventually, increase access to information and services available to different segments of the population, such as farmers (see Box 4).

Table IV below provides an interesting insight into what mobile owners do with their mobiles, with "to access mobile money or banking services" ranking last of all categories.

Table IV: What mobile owners do with their mobiles? (per cent of mobile owners)	Male	Female	Total
For missed calls	80	80	80
For text messaging	66	65	66
Receiving phone calls (via network provider, not any messaging application)	58	55	57
Taking phone calls (via network provider, not any messaging application)	58	54	56
To listen to music	53	49	52
To play games	34	32	33
For calling applications (messaging apps)	25	23	24
For chatting (instant messaging apps)	20	19	20
For sharing content (pictures, video, music)	19	18	18
To use Facebook application (not through browser)	18	15	17

	Male	Female	Total
To download/use other mobile application	14	13	13
To receive updates (news, sports)	14	7	11
To watch online video content (streaming)	12	8	10
For using the Internet through a browser	10	8	9
For email	6	6	6
For mobile money applications (send/receive talk time)	6	5	6
To access other social networking of blogs	5	5	5
To use Wikipedia applications	4	3	3
To access mobile money or banking services	2	2	2

Source: LIRNEasia Study, Myanmar, 2016

Availability of contents in Burmese [20]

Uptake of e-commerce will also depend on the availability of content in local languages, as well as on the possibility of using Burmese characters in a simplified form. Platforms that were designed for other languages were not very conducive for Myanmar. Increased digital literacy will therefore depend on better accommodations for the local language

by popular services too. For a long time, the de facto Myanmar's mainstream font for the Burmese language was Zawgyi, a font developed by a group of enterprising individuals. Nowadays, there is another Burmese-language font competing — one that is more familiar outside Myanmar, called the Unicode. This system assigns each a code to letter, and by doing so, ensures character encoding is consistent across all platforms, devices and operating systems. Initiatives are underway to facilitate content creation in Unicode and Zawgyi fonts, which could contribute to increased literacy and more diverse use of the Internet.

[20] *For a detailed account of the drawbacks and benefits of Zawgyi and Unicode, see https://frontiermyanmar. net/en/features/battle-of-the-fonts*

Box 4: Impact Terra, connecting farmers to markets

Impact Terra is a social venture that is developing and implementing digital solutions for smallholder farmers, agribusinesses and other stakeholders involved in agriculture.

Its vision is to create the go-to digital services platform for all stakeholders involved in smallholder agriculture. Its Golden Paddy platform was launched in Myanmar in December 2016 and now receives over 2.8 million unique visitors each month, covering 97 per cent of townships throughout the country. Its three-step approach is "connect, engage, impact". By connecting smallholders to our digital ecosystem, they are taking the first step towards becoming part of the global economy. It is available in a score of local languages.

Once connected, farmers can gain access to the latest and most relevant information about farming practices, weather and market price information, as well as access to suppliers, buyers and financial service providers. The information is crop and location specific where possible. With the right supporting infrastructure in place, such as digital payments, farmers will soon be able to engage in digital commerce and become part of the global economy.

With such information and access available at their fingertips, Impact Terra wishes to positively impact smallholder farmers' livelihoods, as well as more broadly increase food security and sustainability. The platform is free to use and is independent. It works with many partners, both public and private, in order to provide the best services for smallholders.

On the flipside, by connecting farmers to the digital world, Impact Terra is able to collect data that was hitherto unavailable and impossible to efficiently obtain. This data on farmers and rural communities will enable the public and private sector to design and provide better services.

Agriculture is fundamental to many developing countries and there are some 500 million smallholder households globally.

Source: Impact Terra

6.2. Availability of tertiary education/curriculum, professional training

Growing skills mismatch is costing opportunities to foreign investors supporting the e-commerce ecosystem development as they must invest in retraining or import foreign labour, due to a lack of proper ICT education and training opportunities.

In the area of education and training, all countries, especially LDCs, need to adjust their education and training systems to deliver the skills required in the digital economy. This is vital not only for young people entering the labour market, but also for existing workers who need to be retrained and prepared for a future of lifelong learning that equips them for jobs and provides skills flexibility and adaptability.[21]

Companies surveyed for this assessment all pointed to the critical lack of ICT skills among the population and in particular from their young recruits (see Figures 9 and 10 below). The ICT-related curriculum provided by universities and other tertiary education bodies are almost non-existent or clearly insufficient. Limited dedicated training on web development, content management, app development is readily available. Yet, since the demand for ICT specialists from private sector is there, government can encourage private institutions to come in and invest in training centres for ICT specialists with programs closely aligned with industry demand.

Similarly, in Government ministries and agencies, understanding and awareness of what e-commerce is and how it works are very limited, and so is the use of e-platforms among Government officials. There is currently limited demand for using e-platform because existing practices encourage the use of manual processing. Recent initiatives such as that launched by the Ministry of Commerce to raise awareness on e-commerce among relevant ministries have been very well-received as they responded to perveiced needs (Figure 9 and 10).

Most e-commerce companies are faced with two choices when looking to hire "ICT expertise": they could tap into the potential existing in Singapore (Burmese speakers) or in other ASEAN countries (at a higher cost) or could provide on-the-job training from day 1, hoping to be able to craft (instill, develop) ICT

skills and knowledge in these new recruits. For most CEOs interviewed for this assessment, the ICT skills gaps is the number one issue for the development of the sector in Myanmar.

Media have a very important role to play in educating the population and raising the awareness about e-commerce. It is important to educate the new generation of digital users. Local media and news outlets should help combat misinformation about a technology sector still in its infancy. In addition, business schools and universities should learn from global institutions and look further into research and case-studies done by these schools, in order to learn and apply best practices. If ICT education and literacy gaps are addressed, the e-commerce industry in Myanmar could accelerate in maturity.

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[21] *UNCTAD Information Economy Report 2017: Digitalization, Trade and Development*

Figure 9: Most important awareness/capacity-building needs (private sector respondents)

Capacity building on e-commerce for public servants in relevant ministries	
Capacity building on e-commerce for small and medium businesses	
Raising knowledge about existing opportunities for SMEs to engage in e-commerce	
Integrating the e-commerce dimension in existing trade promotion activities	
Raising consumer awareness about e-commerce	
Education on ICT and e-commerce in universities	

Source: UNCTAD

Figure 10: Most important awareness/capacity-building needs (public sector respondents)

Education on ICT and e-commerce in universities	
Integrating the e-commerce dimension in existing trade promotion activities	
Raising knowledge about existing opportunities for small and medium enterprises to engage in e-commerce	
Raising consumer awareness about e-commerce	
Capacity building on e-commerce for small and medium businesses	
Capacity building on e-commerce for public servants in relevant ministries	

Source: UNCTAD

7. ACCESS TO FINANCING

> E-commerce is considered a risk-prone industry and corresponding levels of collateral are required from e-commerce SMEs. Personal and relatives' finances, donor-supported initiatives are prime sources of financing for tech start-ups. Several venture capitalists focusing on tech start-ups only have appeared recently, slowly changing access to the capital ecosystem, though this is still on a small scale due to unsupportive legal (registration, ownership) and tax environments.

Access to financing is one of the biggest obstacles to developing small businesses in Myanmar. There are several weaknesses in regulatory framework.

Whereas banks often cite regulatory conditions (lack of collateral, terms of less than 12 months) as the main obstacles to developing MSME finance, several other factors may explain the lack of finance for SME development in general and for ICT and e-commerce companies in particular:

- Because of the scarcity of capital, institutions without a specific "low income client" mandate will direct capital to more lucrative opportunities in the high income and corporate markets. Clients who are unable to access regulated credit are resorting to more expensive services from unregulated institutions. Additionally, given the short-term nature of deposits that fund loan portfolios, no long-term credit products are offered.

- Severe physical infrastructure inadequacies amplify distribution challenges. The lack of electronic infrastructure drives up costs and limits scale (most financial services providers are in the early stages of adopting electronic management systems, and there is a limited supporting financial sector infrastructure - credit bureaus, payment systems, capital market, forex market).

Recent progress has been noted by SMEs interviewed for this assessment. One such action supporting the banking system overall, is the adoption by CBM of the regulation on Credit Information Reporting System in early 2017. This enables the building of credit information of borrowers, which in the long run will enable banks to do better credit evaluations and lend without collateral.

7.1. Access to finance through banks, Micro Finance Institutions (MFIs)

E-commerce and ICT are regarded as risky ventures and do not capture banks' interest yet. Banks are generally risk averse and not keen on financing private sector start-ups. Banks are asking for collateral for loans. The collateral concerns land and buildings and the customer has to be registered as business in order to get a loan. When making loan decisions, the bank does not differentiate between types of business, whether e-commerce or other.

Microfinance schemes for entrepreneurs are being introduced in Myanmar aiming to improve access to capital and reduce reliance on informal money lenders. The Microfinance Law was enacted in 2011. By 2013, 177 enterprises had licences to provide microfinancing mostly for small companies catering up to 1,000 customers.

The Small and Medium Industrial Development Bank (SMIDB) has been active in Myanmar since 1996 in improving access to finance for MSMEs and supporting innovation and start-ups. Further plans and work for supporting MSMEs in Myanmar are being made by the SMIDB with an aim to improving the investment climate for SMEs.

Government has been making efforts to support MSMEs through a number of initiatives, notably through the Ministry of Industry and the Myanmar Economic Bank to subsidize credit to MSMEs, as well as other measures through the cooperatives and the MFIs. The Ministry of Industry has attempted to provide subsidized wholesale funding in partnership with SMIDB (8.5 per cent interest, three years) and has recently expanded to other banks. Despite low interest rates, SMIDB has only 550 active loans, collateral being a major constraint.

7.2. Access to finance through business incubators, business accelerators, venture capitalists

The start-up ecosystem–business accelerators, incubators, angel investors–in Myanmar is getting better but still cannot be compared to most other countries in South-East Asia.

Law and regulations are improving day by day, including investment and taxation, which are major concerns for any investor deciding whether to jump in or not. A major drawback mentioned by several respondents is that there are many organizations focused on acceleration programs or building start-ups but none of them are working together.

Two business accelerators are working exclusively on supporting tech start-ups. Phandeeyar is the most famous among the tech start-ups (Box 4). With funding from different investors, it is structured as three "businesses": a non-profit foundation in the US, a service company called Myanmar Innovation Lab and an investment company called Phandeeyar

ventures. Phandeeyar is more than an accelerator: it supports better resource allocation and social impact programmes. Its focus is on how to use technology to have an impact. The Accelerator programme enables Phandeeyar to invest in start-ups, take equity and provide them with funding up to US$25,000. It provides start-ups with office space, coaches and mentors. All start-ups are incorporated in Singapore, not in Myanmar, for regulatory and tax purposes. This is to capitalize on the very efficient business creation and registration system in Singapore, while the Myanmar business registration and tax registration system is undergoing constant development, which may frighten venture capitalists.

Box 5: Phandeeyar, Myanmar Innovation Lab

Phandeeyar ("creation place") was established in 2014 to support Myanmar's digital leapfrogging. It is a community tech hub that is spearheading the development of the country's tech and social innovation ecosystem. Phandeeyar was established as a non-profit organization, with core funding from Omidyar Network, the Open Society Foundations and Schmidt Family Foundation.

Phandeeyar works in two ways: first, by building the pool of tech talent, investing in local start-ups and training founders; second, by helping change agents use technology to increase the impact of their work. Phandeeyar is building the pool of local technical talent and start-ups that can develop the digital products and services that the country needs. Its flagship program Phandeeyar Accelerator invests in promising start-ups, providing them with seed funding, coaching, mentoring and access to investors. Its pre-Accelerator programs: Silicon Valley's renowned Founder Institute, and Start-up Challenge, Myanmar's biggest start-up competition, help aspiring entrepreneurs to launch their companies.

Typically, promising tech start-ups identified by Phandeeyar through its annual flagship "Start Up Challenge" would receive initial funding of US$25,000, office space, mentoring and coaching to help them fine-tune their products. This usually take the form of six-month internships in Phandeeyar. The best start-ups graduating from the internship program get the unique opportunity to present their products/services to global venture capitalists and investors. The chosen start-ups have all built their product and have shown that there is demand for it in the market, and that they need to take their companies to the next level. The startups can expect to raise their next round of funding of between US$100,000 to US$200,000.

The organization has been operating for two years and has nurtured more than 20 start-ups to the point where they are able to pitch for potential investors outside Myanmar. It is too early yet to assess the survival rate of the start-ups after they have received initial accelerator support from Phandeeyar.

Phandeeyar helps change agents take advantage of Myanmar's connectivity revolution. Its Data Team runs an open data portal, OpenDevelopmentMyanmar.net, and helps policy groups, CSOs and independent media use data in their work. Finally, Phandeeyar Labs helps civic and social entrepreneurs develop new tech products, such as the parliamentary information platform OpenHluttaw. info, to increase participation, transparency and accountability.

Source: Phandeeyar, http://phandeeyar.org

Issues affecting the start-up scene are well documented, as they appear similar to those found in other frontier markets in the region. Too many start-ups do not do their homework; that creates drawbacks for investors. There is a huge risk to run a start-up in Myanmar since too many bottlenecks–

unclear regulations, lack of a proper status for tech start-ups, low adoption of online payment, lack of trust in online shops–are not yet resolved and the skills gap in Myanmar is worst compared to other countries. Separately, venture capitalists are still wary of the economic (investment law, company law) and political

situation in Myanmar. Most companies would register overseas (especially in Singapore) to raise funding for Myanmar, not willing to cope with an unstable legal and regulatory framework, especially as regards the financial system.

7.3. *Access to finance through development partners*

Development partners are only now starting to consider the ICT industry and its potential as a separate segment under their Private Sector Development or SME development programmes.

The World Bank and JICA have been providing loans to SMEs, but with no specific focus on ICT. The EU SMART Myanmar programme (a SWITCH-Asia project) is supporting knowledge and skills development in the ICT sector for both Governments and SMEs.

The Mekong Business Initiative (mekongbiz.org, funded by ADB and DFAT Australia) and the DaNa Facility (funded by UKAid) are providing grants for SME development and have been helping several initiatives in support of ICT and e-commerce development in Myanmar.

CONCLUSION

Myanmar can be considered a latecomer to the e-commerce revolution, having experienced international isolation until 2011. The steps Myanmar made since have been very encouraging, as evidenced by one of the world's fastest mobile and smartphones penetration.

Myanmar's robust development is fueled partly by the adoption of ICT and the development of e-commerce. Business accelerators, venture capitalists and the ever-increasing number of tech start-ups are clear evidence that Myanmar's e-commerce scene is booming – albeit from a low level - and Myanmar is no longer considered a frontier market when it comes to digital innovation.

While Myanmar's e-commerce future looks bright, a considerable amount of work for the Government remains, particularly in improving and updating the legislative and regulatory framework (addressing consumer protection, privacy, security of transactions, cybercrime, and other concerns in an online environment), ICT and payment infrastructure. Respondents to the online survey and private sector firms joining focus group discussions organized in the context of this assessment all

concluded that the ICT and mobile telephony sectors were the prime beneficiaries of the current boom. In the long run, they estimated that retail, healthcare and tourism could benefit the most from the e-commerce uptake, though most respondents failed to see how cross-border e-commerce, other than for import of consumer goods, could help address the increasing foreign trade imbalance.

As a next step, Myanmar should consider harnessing the potential of e-commerce by developing a national vision and strategy for e-commerce. UNCTAD support in e-commerce strategy formulation, based on the findings of this Rapid eTrade Readiness Assessment, would provide the necessary tools to Government to create and disseminate this vision.

On the longer term, the Government needs to create an e-commerce ecosystem to stimulate digital innovation, online sales, exports of products, as well as enabling an environment for those services where Myanmar has a competitive edge. This will be expected to drive future export diversification and growth, contrasting with the current focus on domestic sales and retails, where only a limited number of SMEs are able to benefit from the e-commerce uptake.

THE WAY FORWARD: ACTION MATRIX

E-COMMERCE READINESS ASSESSMENT AND STRATEGY FORMULATION			
Indicative action	**Expected outputs**	**Priority Level**	**Potential support by:**
Develop a national strategy and policy for e-commerce development as part of the current efforts to craft a vision for a digital economy.	E-commerce is recognized by the Government as a vehicle for economic growth and job creation. Line ministries and private sector working closely to support policy implementation in a shared vision.	High	MoPF, MoC, MoTC, Cabinet, UNCTAD, WB, EIF
In consultations with Myanmar's Digital Economy Development Committee (DEDC) under MoPF, and in view of MoC's new role in services development, assign specific role to the Ministry of Commerce as the lead agency for e-commerce development (with an initial focus on regulations, negotiations and statistics).	MoC has developed a "single-window" on e-commerce law, regulation and regional/multilateral trade negotiations. Public-private dialogue is reinforced as e-commerce, services development and job creation become connected under one roof.	High	MoPF, MoC, MoTC, DEDC, Cabinet
Formalize the different interministerial consultations for the digital economy into one single sector coordination group (preceded by a rationalization exercise and capacity assessment aimed at defining government mandates on e-commerce).	Overlaps, duplication and contradiction among government institutions strategies for e-commerce development are eliminated, creating the basis for a single shared national vision for e-commerce in Myanmar.	Medium	MoPF, MoC, MoTC, MoE, DEDC
Accelerate e-commerce-related compliance with AEC Blueprint and e-ASEAN framework –in particular regarding domestic regulatory framework for e-commerce–to boost interest and investment into Myanmar e-commerce ecosystem development.	Myanmar commitments under e-ASEAN framework are fulfilled and Myanmar scores higher in AEC Blueprint scorecard.	Medium	MoPF, MoC, Cabinet
Promote exports of MSMEs from Myanmar through facilitation of partnerships between leading e-commerce MSMEs and international selling platforms, with the assistance of chambers of commerce as facilitators.	Online presence of Myanmar exporting MSMEs is secured and Myanmar e-commerce firms better positioned to move e-commerce into foreign currency earner.	Medium	MoC, MoI, UMFCCI, ITC, EU, EUROCHAM, AMCHAM
Strengthen the operational capability of Myanmar Post to support e-commerce and ensure operational efficiency of the postal network to facilitate e-commerce inclusion across the whole country.	Increased e-commerce inclusion for all citizens and businesses. Strategic positioning of Myanmar Post, improvement in the operational efficiency of the Myanmar Post, and the sustainability of the universal postal service.	Medium	MoTC, MoC, Donors, Myanmar Post, UPU
In the context of the recently signed statement on e-commerce at the WTO MC11, implement a training programme for negotiators on e-commerce-related matters (including ITA, TISA, RCEP and ATISA).	Myanmar obtains better deals in current and future free trade agreement negotiations and use its experience under RCEP to become more proactive on e-commerce among LDCs.	Low	MoC, FERD, MoTC, MoPF
Update the Medium-Term Plan for Aid-for-Trade (2017-2021) to include e-commerce during the next MTP stock-taking exercise and include digital economy and e-commerce in the Myanmar Sustainable Development Plan (MSDP)"	Myanmar's e-commerce strategy benefits from development partner Aid-for-Trade resources as e-commerce becomes a priority under the country's trade development agenda.	Low	MoC, Donors, EIF, MoPF and others.

ICT INFRASTRUCTURE AND SERVICES			
Indicative action	**Expected outputs**	**Priority Level**	**Potential support by:**
Continue ensuring fair and affordable access by all mobile operators to the incumbent backhaul fiber optic network and sufficient coverage and capacity spectrum, by supporting cost-oriented and open access to sufficient local and international backhaul and backbone fiber optic network, and making sufficient harmonized spectrum available in a predictable and transparent manner.	Procedures for obtaining right-of-way access to private sector-owned ICT infrastructure made easier.	High	MoTC, MPT, Telecom operators, WB, ITU, ADB, AIIB

ICT INFRASTRUCTURE AND SERVICES			
Indicative action	**Expected outputs**	**Priority Level**	**Potential support by:**
Secure sufficient international bandwidth to keep up with increasing data traffic especially for government offices (through submarine cables and satellite links).	Better access, reliability and latency of Internet connection for Government offices at Central and State level.	High	MoTC, MPT, Telecom operators
Ensure higher segments of population outside urban areas have access to fast, reliable (3G and then 4G/LTE) Internet access through mobile phones.	Faster economic development of non-urban areas through better communication, better access to information, increased productivity, ultimately improved people's livelihoods.	High	MoTC, MPT, Telecom operators
Strengthen and modernize role of MCF, MCIA and MCPA to promote investments in ICT and digital economy.	Public-private dialogue (and advocacy) on ICT moves from focus on infrastructure to a focus on e-government and services to businesses and consumers.	Medium	MoC, MoTC, MCF
Conduct market-based assessment of ICT industry for more informed decision-making.	Up-to-date data and statistics on economic value and job creation produced by the ICT and e-commerce industries are basis for policy decision for public investment in ICT infrastructures and services.	Medium	MoTC, MoC, MCF
Encourage the development of the digital economy by improving automation of services to the public, especially those trade-related related: business registration, import/export licensing, taxation and government procurement. Information on automated public services should be disseminated once they have been testing in close loops.	Trade costs (in particular having to go to Nay Pyi Taw for business and trade-related procedures) are lowered, increased fiscal revenue.	Medium	Cabinet, MoC, CBM, MoPF, MoI
Promote ITeS as a source of services export, taking advantage of the very dynamic tech start-ups ecosystem and existing services trade with Singapore (in line with DTIS 2016 recommendations).	Myanmar's dynamic tech start-ups generates additional investments in the ITES and ICT industry.	Low	MoC, MoTC, ITC

TRADE LOGISTICS AND TRADE FACILITATION			
Indicative action	**Expected outputs**	**Priority Level**	**Potential support by:**
Foster development of additional PPP between private sector couriers and Myanmar Post, to strengthen Myanmar's logistics infrastructure (through access to better technology as well).	Postal sector is modernized ensuring broader options for shipment of parcels outside urban centres, reaching new segments of population currently inaccessible.	Medium	Myanmar Post, MoTC, B4ETD, ESCAP
Develop Myanmar Post to support small parcels for cross-border e-commerce, including the adoption of a self-declaration scheme for customs duties, and easy–export / easy-import through the Post that targets MSMEs across the country, including rural areas.	Increased exports and imports of small parcels for low value items from Myanmar MSMEs thanks to lower prices and simplified export and import processes offered by Myanmar Post.	Medium	Myanmar Post, MoC, MoTC, Myanmar Customs, UNCTAD, WB, UPU
Accelerate implementation of efficient and streamlined clearance procedures by Customs and other Government agencies involved in the import and export of goods, particularly referring to the implementation of the UN Framework Agreement on Facilitation of Cross-border Paperless Trade in Asia and the Pacific and the WTO TFA obligations (in particular, address issues in customs valuation procedures that is consistent with WTO Customs Valuation agreement and seek assistance to implement Article 8 on Expedited Shipments in TFA).	The improvements in trade facilitation for traditional trade act as positive externalities for the clearance of goods ordered through e-commerce means.	Medium (in line with categorization)	MACCS, MoTC, JICA, WB, UNCTAD, UPU, ESCAP
Review actual constraints for development of quality logistics services for last-mile delivery in Myanmar and impact assessments of opening sector to more competition.	Informed negotiations at ASEAN level and revised criteria for the market entry of foreign logistics providers for last-mile delivery services.	Medium	MoTC, WB, B4ETD, UPU

TRADE LOGISTICS AND TRADE FACILITATION			
Indicative action	**Expected outputs**	**Priority Level**	**Potential support by:**
Coordinate with other Asian LDCs to request the non-imposition of tariffs on low value shipments (de minimis) contracted by e-commerce by MSMEs in LDCs (in particular for RCEP negotiations and discussions with the WTO).	Increased exports of "Made-in-Myanmar" products and services to niche markets in developed countries, including to Myanmar diaspora overseas.	Medium	MoC, MoPF, Myanmar Customs, Cambodia/ Laos Commerce Ministries, WCO
Support the development of a physical address and postal code system and increase "findability".	Delivery time and prices are reduced, e-commerce gains popularity outside urban areas.	Low	Myanmar Post, MoTC, UPU, B4ETD

PAYMENT SOLUTIONS			
Indicative action	**Expected outputs**	**Priority Level**	**Potential support by:**
Streamline regulatory environment (licensing included) for Financial Service Providers (FSP) and Payment Service Providers (PSP) at both Central and State levels.	Grey zone operations of payment services are discouraged, boosting trust and credibility of other licence providers.	High	CBM, MoTC, MPT, Myanmar Banks Association WB, ADB, MoPF
Support public and private bank investment in technology (electronic clearing and settlement systems, retail real time processing and switching platforms) so that their systems are ready for online payments and online transfers at the domestic and cross border levels.	Banks are able to keep pace with increased demands for electronic payments for e-commerce both domestically and cross-border.	High	CBM, Myanmar Banks Association, MoPF, B4ETD
Accelerate plans to enable interbank money transfers and payments, which is not happening as of now, both at national and international level, through participation in the Asian Payment Network.	Increased acceptance of mobile/cashless payments by merchants at a reduced cost (no need to invest in separate POS or to open bank accounts in several establishments).	High	CBM, MoTC, MPT, Myanmar Banks Association, MoPF
Explore ways and means–technically and from a regulatory point of view–to move payment of taxation using online payment means.	Increased use of mobile payments (using e-wallet, mobile payments and e-banking), better collection of revenue for Central and State levels.	Medium	CBM, MoTC, MPT, IFC, WB, MoPF
Promote Fintech development to instill more confidence with investors and financial technology pioneers in Myanmar payment ecosystem.	Electronic payment providers can act in full compliance with regulations and invest in innovative solutions for new segments of the unbanked population.	Medium	CBM, MPT, Myanmar Banks Association, IFC, B4ETD, MoPF
Increase confidence of merchants to accept electronic payments, through dedicated awareness raising programmes, moving from a cost approach to an investment approach, with a special focus on MSMEs.	Increased number and value of transactions using electronic means of payments, reduction in COD payments and in the costs of handling payments (e.g., cash).	Medium	CBM, Myanmar Banks Association, MoPF
Launch an awareness campaign programs to educate merchants on value of cashless payments and the costs of handling cash and encourage enablers especially cash electronic interfaces such as POS, ATM, mobile cash-in/cash-out agents, telecommunication infrastructure to develop new services.	Increased confidence and adoption of cashless transactions by merchants.	Medium	CBM, Myanmar Banks Association, MoPF
Government, as a major source of payments, should increase adoption of electronic means of payments to personnel (leveraging the civil and military service personnel).	E-payments and e-bank savings accounts for civil servants, the military and pension recipients boost banked population and increases confidence in online payment methods.	Medium	CBM, MoPF

PAYMENT SOLUTIONS			
Indicative action	**Expected outputs**	**Priority Level**	**Potential support by:**
Evaluate the recognition of company registration information by parties external to Myanmar: is sufficient information available on company directors and their activities to permit compliance checks?	Foreign counterparts are able to evaluate the identity of Myanmar firms and their directors and more easily engage in online business.	Medium	DICA
Use the postal network with its unique reach in remote and rural areas to enable financial inclusion as a provider of financial services, especially of digital financial services (including postal payment services) and ensure its operational readiness to provide them.	Increased access to financial and payment services through digitization, partnerships with banks and other financial institutions. Post as a unique institution providing both the financial and logistics channels for the population and SMEs especially in rural areas.	Medium	MoTC, MoC, Donors, Myanmar Post, UPU

LEGAL AND REGULATORY FRAMEWORK			
Indicative action	**Expected outputs**	**Priority Level**	**Potential support by:**
Expand consultations with all relevant actors for the preparation of an e-commerce law. Study best practices from the ASEAN countries' legislation.	In line with AEC commitments, Myanmar needs to accelerate work on improving the framework for the dissemination and adoption of both ICT and services that are seen as essential to promoting the adoption of e-commerce. There are targets on this in ASEAN strategies of development.	Medium	MoC, MoI, MoTC, MoPF, UNCTAD, ITC, EU
Initial drafting of an e-commerce law for Myanmar supporting the development of a conducive e-commerce ecosystem.	The e-commerce law improves the confidence of e-commerce players (merchants, ICT firms, mobile telephony providers) and Government institutions and provides a single vision for e-commerce development.	Medium	MoC, UNCTAD, WB
Carry out a regulatory gap analysis on e-commerce in order to assess needs to update and/or upgrade e-commerce related laws (e-transactions, consumer protection as priorities) to include most recent e-commerce development on electronic transactions, data protection and cybercrime.	Duplications, overlaps among existing legal texts and loopholes are removed to create a robust and secure e-commerce legal ecosystem. E-commerce is reflected in current trade-related laws being drafted. Commitments under the e-ASEAN framework and AEC Blueprints fulfilled.	Medium	MoC, MoTC, UNCTAD, WB
Ensure broader consultations with e-commerce players in the private sector (foreign and domestic) on the current regulatory constraints for e-commerce development (marketing, distribution, payment, logistics).	E-commerce strategy and regulations are based on current constraints faced by the private sector.	Medium	MoC, CBM, MoPF, UMFCCI, EUROCHAM, AMCHAM, Myanmar Banks Association
Facilitate MSMEs registration with MoC or relevant Government institutions at Central or State level.	Increased revenue for State generated by the uptake of e-commerce nationwide. Increased confidence for consumers. Better access to finances for MSMEs.	Medium	MoC, MoI, State authorities UNCTAD e-regulation

E-COMMERCE SKILLS DEVELOPMENT			
Indicative action	**Expected outputs**	**Priority Level**	**Potential support by:**
Support the upgrade of tertiary education providers' curricula to include marketable knowledge and skills.	IT and ICT related curricula gain popularity among IT-savvy youth and are aligned with industry's needs.	High	MoE, MCF/ MCPA, MIDO
Develop awareness raising programmes on the basics of e-commerce for merchants (such as the availability and requirements to access e-commerce platform solutions, mobile and cashless payment solutions, and providing adequate online consumer protection).	Increased confidence among merchants for e-commerce.	High	MoC, UMFCCI, Banks Association of Myanmar, EUROCHAM, AMCHAM, MCF, MIDO

E-COMMERCE SKILLS DEVELOPMENT			
Indicative action	**Expected outputs**	**Priority Level**	**Potential support by:**
Incorporate basic digital skills (Internet safety and privacy awareness) into the national curriculum beginning in primary school.	More informed decisions made by IT-aware population when moving purchases or business activities online.	Medium	MoE, State authorities, MCF, MIDO ISOC
Assess current e-commerce and ICT skill gaps to accelerate the development of ICT related curricula in line with e-commerce industry's needs. Enhance dialogue with leading domestic and foreign chambers of commerce and business associations dedicated committees.	Increased marketability of young IT graduates, reduction in IT brain drain to Singapore.	Medium	MoC, MoTC, UMFCCI, MCF, MIDO, The Internet Society (ISOC)
Develop the capacity of e-commerce service sector and enterprises on advanced skills (researching product and market opportunities, creating and managing online inventory, integrating online payment solutions, proposing logistics options, handling customer orders and service).	Job creation in new services sub-sectors.	Medium	MoC, MoI, UMFCCI, MCF
Awareness raising for businesses on the opportunities created by e-commerce.	"Brick and mortar" SMEs develop digital strategy to move online with support from Government and business associations.	Low	MoC, UMFCCI, Banks Association of Myanmar, EUROCHAM, AMCHAM, MCF, MIDO, UNCTAD, ITC
Support efforts by other stakeholders to develop digital skills content (e.g. short tutorial-style videos), which can be disseminated via social media or other channels.	Use and trust in e-commerce and other online platforms increased.	Low	State authorities, MPT, Telecom operators

ACCESS TO FINANCING			
Indicative action	**Expected outputs**	**Priority Level**	**Potential support by:**
Increase awareness of incubators, business accelerators and venture capitalists among MSMEs, through business associations and targeted information campaigns.	Diversified and innovative sources of funding for MSMEs and entrepreneurs with ICT and e-commerce ventures projects.	Medium	MoC, MoI, MYEA, Business incubators, B4ETD, CBM, MEB
Attract international awards and sponsorship programmes for tech start-up (Seedstars, ICT awards) through chambers of commerce and business associations.	Myanmar's dynamic tech start-ups are offered different sources of funding and are exposed to best international practices.	Medium	UMFCCI, MYEA, Business incubators, B4ETD, CBM, MEB
Accelerate measures to improve financial inclusion, especially for youth and women, by encouraging banks to develop products and allowing PSPs to offer innovative products.	Diversified cashless solutions available to all segments of population, based on financial means.	Medium	UNCDF, IFC, MoPF, CBM, IFC, ADB
Provide technical assistance and financial literacy training to firms (especially to MSMEs) in order to enhance their capacity to develop and present bankable proposals.	MSMEs wishing to move products and services offering online have the capacity to successfully apply for a loan and effectively utilize loans for the growth of their businesses.	Low	UNCDF, IFC, MoPF, MoI, CBM, IFC, ADB
Implement a mechanism for cash flow financing of e-commerce merchants: enable advance payment to be received by small merchants on receipt of order.	Cash flow financing facility.	Low	Mobile operators, facilitated by local partners

Annex I: Myanmar Country Profile on etradeforall.org

eTrade for all
Connecting the dots

COUNTRY PROFILE: Myanmar   Contact: info@etradeforall.org

ⓘ GENERAL INFORMATION - 2015

Population
54.2 Millions

GDP
63 307 Millions current US$

Merchandise trade
28 611 Millions current US$

Internet users
11.8 Millions

GDP growth
7.2 %

Land area
653 080 km2

Source: UNCTAD and ITU (complete URL addresses in the General Notes)

📋 E-COMMERCE ASSESSMENT - 2016

Rank in UNCTAD B2C E-commerce Index	Rank in ITU ICT Development Index	Rank in WEF Networked Readiness Index
133/137	153/175	133/139

Source: UNCTAD, ITU and WEF (complete URL address in the General Notes)   Note: 1 = Best

☁ ICT INFRASTRUCTURE AND SERVICES - 2015

Fixed broadband Internet tariffs, PPP $/month

Internet users; 21.8
Active mobile broadband subscriptions; 29.5
Fixed broadband subscriptions; 0.3
Per 100 inhabitants

Hightest tariff — 1 083.2
Tariffs in 50% of eco. are below this value — 34.8
MYANMAR; 74.2
Lowest tariff — 7.15

Source: ITU (complete URL address in the General Notes)

💳 PAYMENTS - 2014

Debit card used in the past year
Myanmar; 0.4
SOUTHERN, EASTERN AND SOUTH-EASTERN ASIA & OCEANIA; 13.3
WORLD; 21.5

Credit card used in the past year
Myanmar; 0.0
SOUTHERN, EASTERN AND SOUTH-EASTERN ASIA & OCEANIA; 7.7
WORLD; 13.3

Used an account to make a transaction through a mobile phone
Myanmar; #N/A
SOUTHERN, EASTERN AND SOUTH-EASTERN ASIA & OCEANIA; 7.3
WORLD; 8.3

Per 100 inhabitants

Source: World Bank (complete URL address in the General Notes)

COUNTRY PROFILE: Myanmar

TRADE LOGISTICS - 2013-14

Percent of population having mail delivered at home

Myanmar	#N/A
WORLD	82.4

Postal reliability index (0 to 100, 100 = Best)

Myanmar	20.8
WORLD	66.1

Days to clear direct exports through customs

Myanmar	4.4
WORLD	7.8

Source: UPU and World Bank (complete URL addresses in the General Notes)

LEGAL AND REGULATORY FRAMEWORKS - 2016

Myanmar

Electronic Transactions:	Legislation
Consumer Protection:	Legislation
Privacy and data protection:	No legislation
Cybercrime:	Legislation

Source: UNCTAD

- Legislation in 4 areas
- Legislation in 3 areas
- Legislation in 2 areas
- Legislation in 1 area
- No legislation

For more information see: http://unctad.org/en/Pages/DTL/STI_and_ICTs/ICT4D-Legislation/eCom-Global-Legislation.aspx

SKILLS DEVELOPMENT - 2013-14

Percentage of firms using e-mail to interact with clients/suppliers

WORLD AVERAGE 69.7

Region	Value
Myanmar	30.1
LDCs	51.6
AFRICA	56.9
WESTERN ASIA	59.6
SOUTHERN, EASTERN & SOUTH-EASTERN ASIA AND OCEANIA	63.3
TRANSITION ECONOMIES	78.5
LATIN AMERICA AND THE CARIBBEAN	82.2
DEVELOPED ECONOMIES	86.9

Source: World Bank (complete URL address in the General Notes)

FINANCING FOR eCOMMERCE - 2013-14

Percentage of firms identifying access to finance as a major constraint

WORLD AVERAGE 27.4

Region	Value
Myanmar	21.3
DEVELOPED ECONOMIES	14.3
TRANSITION ECONOMIES	16.0
SOUTHERN, EASTERN & SOUTH-EASTERN ASIA & OCEANIA	17.2
LATIN AMERICA AND THE CARIBBEAN	30.2
LDCs	35.1
WESTERN ASIA	36.5
AFRICA	39.1

Source: World Bank (complete URL address in the General Notes)

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