



Afghanistan Rapid eTrade Readiness Assessment





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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 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;

Reference to "AFN" means Afghanistan Afghani, unless otherwise indicated; 1 AFN = 0.13 US\$ (October 26, 2018).

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, such as in the context of the 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 Afghanistan Rapid eTrade Readiness Assessment is the sixteenth such assessment conducted by UNCTAD since the launch of the Programme in 2017.

The country's development trajectory continues to face significant risks and volatility. The Government's efforts to promote economic growth, and to develop the public sector infrastructure to adequately cater to the needs of citizens and businesses, are still hampered by the uncertain security climate.

Despite a challenging environment, the digital economy has demonstrated important signs of growth. The ICT sector is maturing rapidly, and e-commerce activity has ramped up. This assessment comes at an opportune time for the country to take stock of the e-commerce ecosystem and implement the recommendations to help support the ecosystem.

With the eTrade for all partners, UNCTAD is committed to continue supporting Afghanistan in its resolve to harness the potential of e-commerce for its development.

Shamika N. Sirimanne

Director, Division on Technology and Logistics, UNCTAD



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The assessment benefited from inputs from more than 30 stakeholders in both public and private sectors, through interviews and the eTrade for all online surveys.

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ABBREVIATIONS

AAT	Advancing Afghan Trade
ACCI	Afghanistan Chamber of Commerce & Industries
ACD	Afghan Customs Department
AFN	Afghani
AML/CFT	Anti-Money Laundering / Combating the Financing of Terrorism
ANDS	Afghanistan National Development Strategy
ANPDF	Afghanistan National Peace and Development Framework
ANTP	Afghanistan National Trade Policy
APS	Afghanistan Payments System
APTTA	Afghanistan–Pakistan Transit Trade Agreement
ASYCUDA	Automated System for Customs Data
ATM	Automated teller machine
ATRA	Afghanistan Telecom Regulatory Authority
AWCCI	Afghanistan Women Chamber of Commerce and Industry
BCP	Border Control Points
BTCA	Better Than Cash Alliance
CAREC	Central Asia Regional Economic Cooperation
CERT	Cyber Emergency Response Team
COD	Cash on Delivery
CSO	Central Statistics Organization
CTR	Covered Transaction Reporting
DAB	Da Afghanistan Bank (Central Bank of Afghanistan)
DTIS	Diagnostic Trade Integration Study
ECOTA	Economic Cooperation Organization Free Trade Agreement
EMI	Electronic Money Institution
EMS	Express Mail Service
e-NIC	e-National Identity Card
EU	European Union
FATF	Financial Action Task Force
GIRoA	Government of the Islamic Republic of Afghanistan
ICD	Inland Customs Depot
ICT	Information and Communication Technologies
IP	Intellectual Property
ISP	Internet Service Provider
IT	Information Technology
ITU	International Telecommunication Union
KYC	Know Your Customer
LDC	Least Developed Country
LLDC	Land-Locked Developing Country
MCIT	Ministry of Communications and Information Technology
MFI	Microfinance Institution
MISFA	Microfinance Investment Support Facility for Afghanistan
MNO	Mobile Network Operator



MOIC	Ministry of Industry and Commerce
MoHE	Ministry of Higher Education
MOU	Memorandum of Understanding
MOWA	Ministry of Women's Affairs
MSME	Micro, Small and Medium Enterprise
NCSA	National Cybersecurity Strategy of Afghanistan
NES	National Export Strategy
NIXA	National Internet Exchange of Afghanistan
NPP	National Priority Programs
NTFC	National Trade Facilitation Committee
NTP	National Trade Policy
OFC	Optical Fibre Communication
PSP	Payment Service Provider
SAARC	South Asian Association for Regional Cooperation
SIGAR	Special Inspector General for Afghanistan Reconstruction
SME	Small and Medium-sized Enterprises
TDF	Telecommunication Development Fund
TF	Trade Facilitation
TFA	Trade Facilitation Agreement
TIR	International Road Transports
TVET	Technical and Vocational Education and Training
UAE	United Arab Emirates
UNCITRAL	United Nations Commission on International Trade Law
UNCTAD	United Nations Conference on Trade and Development
UNDP	United Nations Development Programme
UNESCAP	United Nations Economic and Social Commission for Asia and the Pacific
UPU	Universal Postal Union
US\$	US Dollar
WB	World Bank
WCO	World Customs Organization
WEE-NPP	Women Economic Empowerment National Priority Program
WIPO	World Intellectual Property Organization
WTO	World Trade Organization



EXECUTIVE SUMMARY

Since 2001, the Government of Afghanistan has placed significant emphasis on institutionalizing reforms aimed at improving the country's overall business and investment climate, improving supply-side competitiveness of key priority sectors (both goods-and services-based) and strengthening regional integration. The private sector is provided a prominent role to participate in policymaking debates affecting business and investment. However, Afghanistan continues to face security challenges that are inhibiting these promising efforts. These conditions that are exerting downward pressures on the economy are evident by the registered decline in the GDP rate (2.4 per cent in 2018 from 2.7 per cent in 2017)¹ and is expected to affect job creation as well as further productive growth. As a post-conflict country in reform, the country faces a multitude of important hurdles to overcome.

The Afghan private sector is a case study of resilience and innovation, despite overwhelming odds created by security issues and political challenges over the last fifteen years and earlier. While the ravages of conflict have no doubt stymied the capabilities of firms, the innate entrepreneurial spirit of Afghans has helped the private sector base re-emerge. Resolutely supported by a range of development partners and technical agencies, productive sectors such as carpets, agriculture (especially spices including saffron and essential oils), are showing signs of revival. Significant improvements have taken place on the supply side and business environment dimensions. Market penetration and survivability of trading relationships, however, remain a somewhat elusive goal.

In response, the Government has placed a substantial policy and development focus on trade and private sector development, evidenced by the country's accession to the World Trade Organization (WTO) in 2016, the design of the National Export Strategy, the National Priorities Programs (NPP) on private sector development and Women's Economic Empowerment, as well as participation in a number of regional integration initiatives including bilateral/multilateral treaties. The underlying theme across these initiatives involves successfully facilitating market linkages for

Afghan products, in both domestic and international markets.

E-commerce can facilitate improved penetration of markets, ensuring that Afghan products are visible in the marketplace, and the buyer-seller gap is reduced. There is now widespread cognizance in the country regarding this. E-commerce in Afghanistan has started with a focus on domestic markets, then grow on the back of mobile phones, driven by a significant demand from domestic consumers for services that can alleviate the challenges resulting from movement restrictions and safety considerations. Security challenges across the country continue to be an impediment for scaling up e-commerce operations. The same movement restrictions serve as a business driver for spurring consumer interest in services that can improve convenience and personal safety in this environment. Food delivery and grocery services, transportation services, breaking news messaging services are examples of early niches that have emerged. Geographic targets likely are Kabul and key provincial capitals like Herat and Mazar e-Sharif.

This early wave of e-commerce is being driven by the IT sector. The driving factors are a steadily growing IT ecosystem, a steady supply of IT talent predominantly comprised of young and dynamic Afghans, and a consistent demand from the development community and the Government. Challenges include overall economic performance and enterprise level capabilities, but Afghan companies emerge to embrace opportunities. The IT sector has been especially dynamic. A key finding of this assessment that IT firms (in particular, youth led) have spearheaded e-commerce activity in the country is particularly indicative of the intertwined nature of these two sectors. Care must be taken to develop sustainability at the enterprise level. The Afghan private sector sometimes tends to focus on short-term successes and goals; long-term vision and planning takes a backseat. This may be a symptom of the larger problem of long-term economic and security uncertainty but needs to be addressed. To make their businesses sustainable, e-commerce firms must absorb the fundamentals of strategic, operational and financial planning and adhere to them as standard operating practice.

¹ World Bank estimates as noted in the following UN report: *The situation in Afghanistan and its implications for international peace and security: Report of the UN Secretary-General, 2018*



The Afghan telecommunications sector has benefited from a concerted effort by Government and Development Partners to develop the policies, regulations and other soft infrastructure in a way that has promoted investment and private sector entry in a challenging and complex environment. The well-governed regulatory environment for the telecommunications sector has facilitated entry of multiple competitive Mobile Network Operators (MNOs), while ensuring that affordability and coverage for citizens remains a key focus. According to ITU statistics, the mobile cellular subscriber rate stands at 67.4 per cent, while the mobile broadband subscription base is a low 16 per cent. Less than 12 per cent of individuals use the Internet, while fewer than 0.8 per cent of individuals with a SIM card have associated mobile money accounts.

The mobile voice market is now maturing rapidly with some concerns about operator profitability and the need to diversify into value-added services based on mobile broadband. Mobile broadband – an important ingredient for m-commerce – is slow on the uptake in Afghanistan due to a number of factors that need to be addressed. To spur consumer demand, several conditions—including costs, content and applications—will need to be improved.

The value of the “digital” dimension is now slowly being realized. Policymakers can help evolve this space for the private sector further by ratifying the pending E-Transactions draft law, strengthening the consumer protection framework for online transactions and strengthening the enforcement of existing online payment consumer protection obligations. Support for mechanisms such as the Cyber Emergency Response Team (CERT) and the National Internet Exchange of Afghanistan (NIXA) will also be essential to ensure cybersecurity and to spur demand for local content with reduced latency. Development partners can contribute by integrating e-commerce components in any sector development initiatives involving a market-side component.

The Government has prioritized reforms in trade facilitation and trade logistics to address the enduring challenges related to high transit costs, high trade

transaction costs, and road/rail infrastructures. Attention to both hard and soft infrastructure will be essential going forward; the National Trade Facilitation Committee (NTFC) is a key instrument.

Two areas of concern flagged through this assessment are the need by regulators to ensure that private sector investment in ICT does not stagnate. First, operators currently feel significant pressure from crowded competition in a limited market and must be supported to expand their service delivery in 3G/4G and value-added services in a fair-competition context. Second, e-commerce in Afghanistan will likely be driven by mobiles/smartphones. Demand will be driven not only by e-commerce companies selling goods but also companies that provide local content such as news and other services. The skills development infrastructure will need to adapt considerably to ensure that m-programming skills and local content in local languages is developed. Consumer awareness will be an important function of the value and trust consumers start to place in doing certain transactions online. This includes mobile banking, paying bills, reading news, and ordering groceries. A concerted effort by telecommunications firms, e-commerce firms—as well as e-government initiatives—will help to build this confidence.

Access to financing for MSMEs is one of the weakest links in Afghanistan’s e-commerce ecosystem. The early stages of e-commerce development in an already financially challenged lending environment means that lenders are even less familiar with e-commerce companies seeking funds for operational and lending capital, leaving companies with the sole choice of informal financing, which is not sustainable in the long term. There is an important need to speed up the flow of financial intermediation, develop products in the form of debt/grant/trade-finance instruments as well as specific e-commerce loans and improve awareness and confidence among loan seekers related to these loan instruments.

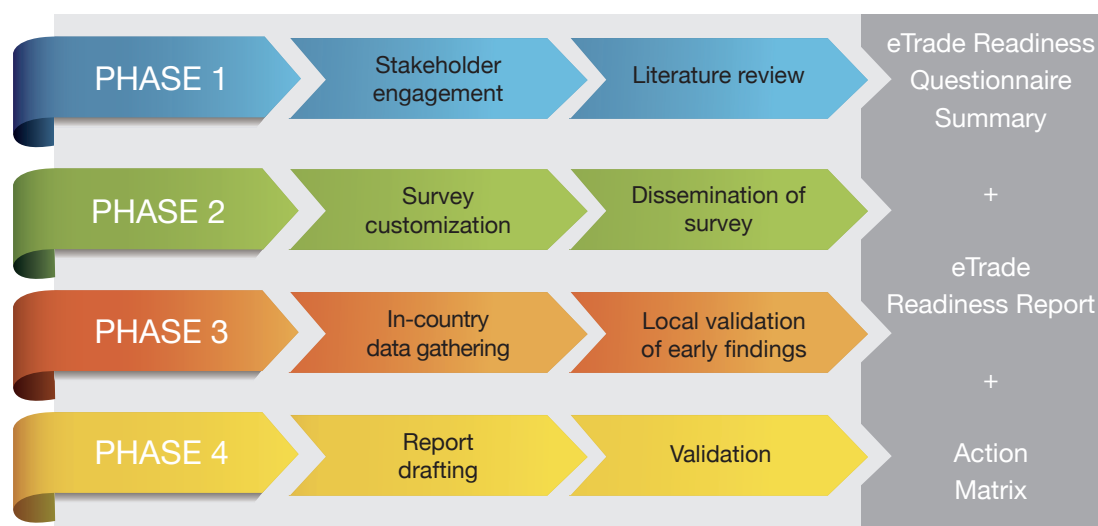
The Government and the private sector have demonstrated commitment to build Afghanistan's trade capabilities. The fledging e-commerce sector has strong potential to be part of this growth story.



METHODOLOGY

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

Figure 1: Assessment methodology²



- ✓ **Phase 1 | Stakeholder engagement and literature review, August-September 2018.**
- ✓ **Phase 2 | Questionnaire customization and dissemination, September 2018.** A customized online questionnaire was distributed to key experts within public and private sectors. The response rate was not very high, so interviews by telephone were used to carry out this assessment.
- ✓ **Phase 3 | Semi-structured interviews with national stakeholders, September-October 2018.** These were undertaken through the support of UNCTAD local team in Kabul, and remote interviews conducted by UNCTAD-Geneva.
- ✓ **Phase 4 | Report writing, UNCTAD/eTrade for all Partners reviews, and finalization, October 2018-February 2019.**

As with all other Rapid eTrade Readiness Assessments, the seven policy areas 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 systems
- ✓ Legal and regulatory frameworks
- ✓ E-commerce skills development
- ✓ Access to financing

The information provided in this report is based on data collected from respondents to the survey for both the public and private sectors and the stakeholders' meetings during the in-country mission.

² An in-country mission was not considered feasible for Afghanistan. Instead, a combined approach of a national UNCTAD team and remote interviews with UNCTAD-Geneva, in addition to the results of the questionnaire, was employed.



SUMMARY OF MAIN FINDINGS AND MAIN RECOMMENDATIONS

MAIN FINDINGS	MAIN RECOMMENDATIONS
 e-Commerce Readiness Assessment and Strategies Formulation	
<p>Good policy leadership in developing a long-term vision to position the country as a regional trade hub. Growing cognizance among policymakers and enterprises of digital business as a growth driver. Apart from social media/Facebook advertising, initial activity has originated from retail, food delivery and news services niches. Demographics will play important role given high number and quality of young IT professionals graduating per year. Significant strides in provision of e-government services, primarily driven by mobile telephony growth, m-payment services and bridging the federal-provincial gap in citizens accessing government services.</p>	<p>Develop a combined national ICT and e-commerce policy. Expand the mandate of the National Trade Facilitation Committee (NTFC) to include e-commerce issues in order to inform overall policymaking. Include e-commerce components in major sector development projects including the NPP on Private Sector Development and the NPP on Women Economic Empowerment National Priority Programme. Encourage enterprise level coordination to develop advocacy position on e-commerce. Continue progress on e-government initiatives. Develop e-government strategy as a priority.</p>
 ICT Infrastructure and Services	
<p>Mobile-penetration rate stands at 67.4 per cent, while the mobile broadband subscription base is a low 16 per cent. Fewer than 12 per cent of the population uses the Internet. Well-governed regulatory environment has boosted investments with six active Mobile Network Operators (MNOs), while ensuring that affordability/coverage remains a key focus. Voice market is crowded out, and operator profitability is contingent on consumer adoption of 3G broadband and value-added services, as well as increased demand for local content. State-owned Afghan Telecom's positioning within the ecosystem needs to be clarified from a fair competition perspective. Establishment of NIXA will promote local content and reduce latency. Infrastructure projects such as the Optical Fiber Loop, Digital CASA and the development of the Telecommunications Development Fund (TDF) bode well for further improvements in Internet access while improving international linkages.</p>	<p>Develop holistic strategies for improving awareness and adoption of 3G, as well as fixed-broadband by consumers. Continue efforts to explore privatization and restructuring of Afghan telecom to position it further for the evolving telecommunications market, while ensuring fair play competitive environment for MNOs and Internet Service Providers (ISPs). Strengthen the Afghanistan Telecom Regulatory Authority's (ATRA) capabilities to fulfill mandate. Consider utilization of the TDF as a fund for insuring the investments made by telecommunications operators in security-challenged areas of the country, and also to seed projects for financial inclusion access. Boost the technical capacities of the National Internet Exchange of Afghanistan (NIXA).</p>
 Trade Logistics and Trade Facilitation	
<p>Afghanistan is party to several bilateral agreements, regional organizations, and transit trade agreements. WTO Accession and TFA ratification are important steps, although reforms are required to develop an efficient trade facilitation regime. Rise of multiple air corridors with important target markets such as India, Turkey and United Arab Emirates (UAE), and China bodes well for e-commerce. Challenging movement restrictions in Kabul both favor e-commerce and create an impediment to order fulfillment and last mile delivery. Intra- and inter-provincial transportation infrastructure is a significant impediment to e-commerce growth. The post office can play an important role in improving trade logistics but requires significant capability development.</p>	<p>Explore mechanisms for facilitating greater SME access to air-cargo corridors to target markets. Implement reform recommendations of Trade Facilitation and Paperless Trade Implementation Survey. Implement high priority items of National Export Strategy for Trade Facilitation. Continue progress on the implementation of the operational Readiness for E-commerce (ORE) roadmap action plan with assistance from the UPU, as well as supporting postal office capability development.</p>



MAIN FINDINGS	MAIN RECOMMENDATIONS
<div style="display: flex; justify-content: space-between; align-items: center;">  Payment Solutions </div>	
<p>Cash use remains the dominant form of payment, along with strong reliance on informal financial networks such as Hawala. Legal framework for electronic payments is improving, and key regulations for electronic money institutions offering Cash Cards, Debit Cards, Electronic Mobile Wallets and Stored Value Account Cards have emerged. Consumer awareness/confidence in mobile money and other e-money solutions is low. Afghanistan Payments System (APS) is a central part of the strategy to improve interoperability between mobile banking/money products, commercial banks and other Electronic Money Institutions (EMIs) such as Payment Service Providers (PSPs) providing value added services. Promising developments in country's anti-money-laundering /combating the financing of terrorism (AML/CFT) regime bode well for increasing confidence.</p>	<p>Advocate for stakeholders within the payments ecosystem to link with APS (national switch), ensuring that timelines for scaling up APS linkages with MNOs, banks, ISPs etc. are met. Raise awareness of the mechanics and the benefits of mobile money for a wide stakeholder base across the country. Ensure that Afghanistan's progress in implementing AML/CFT reforms continues. Ensure that EMI regulations on selection, training and monitoring of money agents fully implemented. Explore inclusion of Hawala network as licensed mobile agents, and improve selection, training of agents in general. Explore non-exclusivity for agents as a mean of increasing liquidity and agent quality across network.</p>
<div style="display: flex; justify-content: space-between; align-items: center;">  Legal and Regulatory Framework </div>	
<p>Recently passed cyber-security law and tenets of consumer protection related to electronic payments are a step in the right direction. A fundamental gap exists in the form of an e-transaction law, and a draft act based on the United Nations Commission on International Trade Law (UNCITRAL) model law on e-commerce must be reviewed. Consumer protection regulation related to electronically formed contracts is also required. As the e-commerce sector matures, intellectual property (IP) protection and data protection will find increased importance.</p>	<p>Expedite review of pending Electronic Transactions and Electronic Signature Act. Ensure enforcement of Da Afghanistan Bank (DAB) issued regulation (licensing, regulating and supervising of EMIs) to safeguard consumer protection stemming from online transactions (payments). Introduce separate/amended consumer protection regulation delineating consumer rights for electronically formed contracts. Ensure provision of technical and financial support to Cyber Emergency Response Team (CERT). Consider adopting regulations for online data protection.</p>
<div style="display: flex; justify-content: space-between; align-items: center;">  e-Commerce Skills Development </div>	
<p>The IT skills space has grown in lockstep with the improvements in ICT (especially telecommunications). On balance, skills providers are increasingly cognizant of aligning themselves to the evolving needs of (current and future) digital businesses, but technical institutes are more agile than universities and a strong skills-mismatch challenge persists. Key skill requirements are anticipated for m-programming, digital business incubation, and website development. Courses and skills-providers are predominantly oriented towards core ICT skills; emerging digital entrepreneurship areas remain largely unaddressed.</p>	<p>Undertake national skills audit (skills gap analysis) related to digital businesses (especially in e-commerce adopter sectors). Foster incubation efforts in digital businesses for women and youth entrepreneurs. Improve coordination between policymakers, skills providers and the private sector. Develop courses at technical institutes level focusing on digital businesses skills (ICT as well as management/operational and entrepreneurship). Foster development of website/m-apps development and local content. Support digital incubation projects. Sensitize consumers and private sector companies to the benefits of going digital.</p>
<div style="display: flex; justify-content: space-between; align-items: center;">  Access to Financing </div>	
<p>Weak banking network outside of Kabul and most provincial capitals affects access to financing in the hinterland. Overall, financial intermediation and consumer confidence in the formal banking sector is constrained. Islamic finance is emerging area of finance with all main banks offering Islamic Finance windows, and one bank (AIB) applying Islamic finance principles in all its operations. Microfinance institutions (MFIs) play an important role in the provision of Micro, Small and Medium Enterprise (MSME) financing, however products may not be fully suitable for financing at the level required by e-commerce start-ups/firms.</p>	<p>Facilitate acceptance of movable assets as suitable collateral for MSMEs in the e-commerce sector. Develop tailored financial products at the commercial banking and MFI level aimed at increasing loan access for e-commerce firms. Conduct coaching/training at the enterprise level for e-commerce entrants to increase their creditworthiness, including for women and youth led enterprises. Explore the possibility of a fund/business loan guarantee scheme to alleviate risk perception of lenders in issuing loans to the e-commerce sector. Conduct awareness programs on available schemes.</p>



FINDINGS UNDER THE SEVEN ETRADE FOR ALL POLICY AREAS

1. E-COMMERCE READINESS ASSESSMENTS AND STRATEGY FORMULATION

Trade and private sector development have become significant priorities for the Government of Afghanistan and the country's WTO accession and Trade Facilitation Agreement (TFA) ratification in 2016 are important milestones. Multiple strategy instruments delineate this focus, although the attention to e-commerce has been largely lacking. No specific e-commerce policy /strategy or national ICT strategy exists.

In order for e-commerce to gain a foothold, inter-ministerial coordination and awareness among policymakers is a must. Coordination mechanisms such as the National Trade Facilitation Committee could be leveraged for discussing e-commerce as well, but the private sector must be consulted. The Government and development partners must integrate e-commerce in any sector development projects that involve a market component. Expanding opportunities for women entrepreneurs in e-commerce is also important.

The transformation decade holds promise for trade and private sector development.

The country's national development agenda has evolved in three phases since 2001. The Stabilization Phase (2001-2010) focused on restoring governance structures and provision of emergency aid and services for the population. Promoting openness in the trade policy arena, promoting an investor friendly regulatory framework, and encouraging cooperation between government and donors for private sector investment were established as important long-term goals. The Transition Phase (2010-2015) involved a focus on institutional capacity-building with the overall goal of fostering self-reliance.

The country is now in the Transformation Decade/ Phase (2015+), where the focus on trade and private sector development has really emerged, marked by the country's accession to the WTO and the Ratification of the TFA. A number of sector development projects have emerged in the last decade and a half and a common challenge has been market penetration and survivability. E-commerce is expected to play an important facilitative role, because at its very basic element, it bridges or at least reduces the gap between Afghan sellers and domestic/international buyers.

International ICT benchmarks/indicators suggest that the Afghanistan's e-commerce ecosystem is in the early stages of development.

Two important independent rankings highlight Afghanistan's overall position in terms of digital readiness: Afghanistan³ was ranked 136 out of 151 ranked economies in UNCTAD's B2C E-commerce Index 2018, which measures the readiness of countries to engage in online commerce, using four indicators: account ownership at a financial institution or with a mobile-money-service provider, individuals using the Internet, the Postal Reliability Index and secure Internet servers. Afghanistan also ranked 159 of 176 economies (2017) in ITU's ICT Development Index, reflecting a rise in position from the 2016 ranking (165). This index is also relevant from an e-commerce standpoint. Several of the sub-indicators⁴ refer to ICT infrastructure, to affordability of ICT services and to ICT skills.

The composite rankings indicate that while the country's relatively robust performance in the telecommunications sector is rapidly increasing overall connectivity and Internet availability, other factors—essential for overall health of the e-commerce ecosystem—such as trade logistics, online payment adoption among others are weak. Thus, the e-commerce ecosystem is still in the early stages of development, with uneven progress across the 7 policy areas. This is a key finding of the assessment that is supported by individual findings across the individual policy areas.

³ Afghanistan was not ranked in WEF's Networked Readiness Index, which is another composite ranking typically reviewed

⁴ These indicators include mobile-cellular telephone subscriptions per 100 inhabitants, international Internet bandwidth (bit/s) per internet user, percentage of households with a computer, percentage of households with Internet access, percentage of individuals using the Internet, fixed-broadband subscriptions per 100 inhabitants, active mobile-broadband subscriptions per 100 inhabitants, mean years of schooling, secondary gross enrolment ratio, tertiary gross enrolment ratio.



Table 1: IT Development Ranking in Afghanistan and selected countries

	B2C e-Commerce Index (2018)	ICT Development Index (2017)
Afghanistan	136	159
Bangladesh	88	147
India	80	134
Iran	49	81
Myanmar	123	135
Nepal	108	140
Pakistan	120	148
Uzbekistan	106	95

Source: UNCTAD, ITU

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

An ICT policy adopted in 2003 aimed at creating a society that fully benefited from a nationwide ICT infrastructure. This policy emphasized the development of fundamental building blocks of ICT infrastructure that had been destroyed by war. It exhorted the Government to:

- Actively use ICTs to provide healthcare, social services, and citizens' services;
- Provide a favorable investment and taxation environment including but not limited to reduced import duties and taxes levied on profits;
- Enhance its effectiveness by using e-government technology and by establishing a national data centre;
- Promote effective ICT training courses at secondary and tertiary level and build partnerships with the private sector to implement corporate training facilities.

This strategy was accompanied by a related Telecommunications and Internet Policy, which provided policies more specific to the telecommunications sector. These policy instruments are directly credited with liberalization and resulting growth of the telecommunications sector and, indirectly, e-commerce.

The 2003 ICT policy also gave a nod to the importance of e-commerce, a sign of the wide-ranging scope of this groundbreaking policy and the ambitious vision of policymakers, even in the early post-war days. The policy notes in support of e-commerce, that "to foster the capacity to trade goods and services by electronic means, the Government of Afghanistan will draft appropriate legislation and will establish the necessary mechanisms to create the sector including protecting the rights of consumers and the interests of providers". In addition, an ICT draft policy spanning 2015-2024 has been prepared but has not yet been endorsed and could be supported in the future by a World Bank funded project for developing an ICT policy.

The ICT policy focus on e-commerce has increased due to the Government's emphasis on trade and private sector development. The scope for e-commerce to bring markets and sellers closer has been reflected with the action plans for the recently completed National Export Strategy,⁵ specifically for high-potential export sectors such as saffron (and other spices), carpets, handicrafts (and jewelry), and fresh food products (especially for the domestic market).

Afghanistan became a full member of the WTO on 29 July 2016, fulfilling a key objective of the national trade development agenda, which include WTO accession, regional integration and access to international markets as priority agenda items. The country also signed the TFA in 2016, further signaling its intent to align national trade facilitation systems with others in the region.

⁵ ITC, *National Export Strategy of Afghanistan (2018-2022)*, 2018



1.2 National policies related to trade and private sector development

Five instruments delineate the national development focus on trade and private sector development: Afghanistan National Development Strategy (ANDS), the Afghan National Peace and Development Framework (ANPDF, a successor to ANDS), the Diagnostic Trade Integration Study (DTIS), the Afghanistan National Trade Policy (ANTP), and the National Export Strategy (NES). A reform programme called Realizing Self-Reliance: Commitments to Reforms and Renewed Partnership also charts the path of the Government's goals in terms of private sector and business reform as well as regional cooperation.

The ANDS, launched in 2008, was originally envisaged as a five-year strategy. It continues to guide policymakers by its visionary scope and clear articulation of Afghanistan's long-term growth trajectory.

Organized under three pillars – Security; Governance, Rule of Law and Human Rights; and Economic and Social Development, ANDS placed significant impetus on establishing the basic instruments and state functions for social welfare, institutional development and governance. Economic development was included as an important aspiration within the third pillar on economic and social development.

The ANDS resulted in the development of several multi-year National Priority Programs which have continued to expand and diversify in recent years.

The ANPDF (2016-present) builds upon the ANDS and articulates the goal for regional cooperation development that includes transforming Afghanistan into an attractive trans-Asia shipment hub, diversifying export routes; and improving security by enhancing confidence and mutual benefit from stable trade.

It concretizes the focus on economic growth through trade and private sector development. The stated goals include building efficient and competitive markets; enabling small and medium-sized enterprises (SMEs), particularly export-focused Afghan-owned firms; and encouraging domestic and international investment. The scope of the ANPDF is broad and ranges from trade facilitation and trade logistics improvements, to SME capability development on the supply side,

as well as to advancing and finalizing Afghanistan's progress in terms of WTO accession and FTA/BTAs. The ANPDF is credited with emphasizing coherent and sustainable implementation of all development projects in the country. Arising from a concern that donor priorities needed to be better aligned with the development needs of the country, a development planning system was developed that defines the logical flow of hierarchy and accountability from the Office of the President, Chief Executive and the Cabinet, to inter-ministerial Councils to line Ministries.

The NES (2018-2022) seeks to assist Afghanistan in improving conditions using trade as a lever for enhanced regional cooperation, economic and human development and poverty reduction. Priority sectors include dried fruits and nuts, fresh fruits and vegetables, saffron, carpets, marble and granite, jewelry and precious stones, and professional services involving e-commerce as key area of focus on the market-side components.

The NES is fully compatible and aligned with the NTP (2018-2022), and both have been developed as part of the Advancing Afghan Trade (AAT) project funded by the European Union (EU). The NES and NTP are pioneering strategies for trade in Afghanistan. Although sector development strategies and plans have been developed, this is the first time that such strategies have been developed at the national level.

Overall, the NTP aims to improve the business environment and investment climate for export purposes, facilitate development of the domestic market and building enterprise competitiveness, develop a tariff regime balanced between collection of customs duties while stimulating the trade and investment climate, streamline mandatory rules requirements involved in goods exports, and improve capabilities/efficiency levels of customs and border controls. It also aims to improve market access for Afghan goods and services, while promoting regional integration and reduction on tariff and non-tariff barriers. Institution-building is also a key area.

The National Priority Program for Private Sector Development (2018-2022) is the key mechanism through which the Afghan government coordinates the desired reform actions in support of the private sector development, investment climate reform and economic growth. It formulates the key elements of the Government commitment to respond to private



sector concerns and constraints. The PSD-NPP defines specific actions required to achieve growth, reduce poverty, and deliver prosperity and stability and achieve Sustainable Development Goals (SDGs).

1.3 National coordination on digital economy issues

Lack of systemic, inter-ministerial collaboration at the intersection of commerce and digital economy hinders policymaking for e-commerce.

Limited ownership and coordination exist among public sector institutions with respect to the digital economy area. Efforts remain focused on traditional commerce and there is no partnership platform where MOIC, MCIT and others regularly convene discussions related to the digital economy.

The National Trade Facilitation Committee, comprised of 20 ministries and relevant agencies, offers an important platform where most entities that have policy bearing on e-commerce development are present. In this regard, the platform could be mandated to discuss e-commerce issues as well in order to inform overall policymaking. An important aspect would be

close consultation with the private sector within this platform, and especially existing companies engaged in e-commerce, to understand the requirements and needs of this emerging sector.

The High Economic Council (HEC), established in 2017 and chaired by the President, and the executive committee on private sector development (PRISEC) chaired by the CEO are two important decision-making platforms where there will be an important need to introduce e-commerce as an agenda item.

1.4 Access to relevant statistics

The public sector lacks a coordinated approach and policy to handle e-commerce related statistical matters. Central Statistics Organization (CSO) of Afghanistan is the government body that officially publishes data and statistics about the economy, trade, demographic etc. According to the CSO website no data are published on e-commerce and electronic transactions and such data are not available with them. However, individual government entities such as Da Afghanistan Bank DAB (Central Bank), commercial banks and some other electronic payment and transaction service-providing firms could provide such figures.

Table 2: Key institutions in Afghanistan's e-commerce ecosystem

eT READY POLICY AREAS	INSTITUTIONS
E-commerce readiness assessment and strategy formulation	Ministry of Industry and Commerce, Ministry of Communications and Information Technology, DAB, Ministry of Finance
ICT infrastructure and services	Ministry of Communications and Information Technology, ATRA, Mobile Service Operators, ISPs
Trade logistics and trade facilitation	Customs, Ministry of Transport, Ministry of Industry and Commerce, Ministry of Communications and Information Technology, MAIL, Railway authority, ANSA
Payment solutions	DAB and Afghanistan Payment System (APS), PSPs
Legal and regulatory framework	Ministry of Justice, Ministry of Industry and Commerce, Ministry of Communications and Information Technology, DAB (Central Bank), Ministry of Finance, ANSA
E-commerce skills development	Ministry of Higher Education, Private Training Institutions, Universities, Technical Education Authority
Access to financing	DAB, Commercial Banks

Source: UNCTAD



1.5 Current status of e-commerce activity in Afghanistan

According to MOIC, approximately 50 online stores exist in Afghanistan, of which the broad majority are unlicensed.⁶ A scan of existing e-commerce companies includes AzadBazar.af, afom.af, JVBazar.com, zarin.com, Rasa Online, Afghan Mart (<http://www.afghanmart.com.af/>), which sells a broad range of goods online ranging from cosmetics, computers, kitchenware and furniture to cars, rugs and real estate.

IT firms, mainly start-ups and at least one holding company, primarily lead e-commerce activity by setting up e-commerce ventures. Some existing companies have diversified into e-commerce, although this is somewhat less prominent than the lead taken by IT firms. This finding reflects the high degree of dynamism in the IT sector especially led by young Afghans.

Afghanistan is no stranger to the Facebook commerce (F-commerce) model that has gained prominence in the developing world. The broader MSME sector prefers to use Facebook for advertising their products via specialized pages. This is an extremely popular mechanism through which MSMEs are bridging the buyer-seller gap.

In the future, there will also be significant potential for services— primarily professional services and freelancing—to take root through the e-commerce model in the country.

Kabul hosts the vast majority of the 600 or so IT firms active in Afghanistan, with other smaller percentages in Herat and Mazar-i-Sharif. Web designing, web hosting, e-mail hosting, database and software development, and IT consulting are the main niches.⁷ These sub-sectors have been recipients of significant donor aid over the last several years. Website design and hosting for example is a widely available service offered by small firms, indicated by the fact that a website that cost around US\$ 1,700 a few years ago can now be designed for nearly US\$ 300.⁸ As the demand for smartphone-led 3G consumption and local content in local languages picks up, companies are expected to develop expertise in mobile programming and local content development.

Significant impetus on e-government initiatives driven by m-apps.

Afghanistan has made significant strides in providing e-government services, primarily driven by growth in mobile telephony, availability of m-payment services and a requirement to bridge the federal-provincial gap related to citizens accessing government services, as well as public sector coordination. One of the first e-governance mechanisms deployed was a centralized system of “Presidential Docs” to ensure visibility, transparency and safeguarding at the highest echelons of government on all relevant documentation reaching the presidential palace and especially requests that require high-level approval. In addition to enabling better public sector coordination (for example through video-conferencing), the system has cut down processing times for paperwork requiring approval, from multiple weeks to a maximum of 48 hours.

Box 1: Recent e-commerce startup activity - a snapshot

Among the flourishing companies in Afghanistan, Quadrant provides daily mobile-based current affairs content on a subscriber-based model (7 AFN per day). The business case is driven by demand for news, especially breaking news security updates. Consumers pay via their mobile money accounts and the company is paid by the telecom companies monthly, based on invoiced amounts net of fees paid to the telecom operators. The company also provides custom software development services for the private sector, government and international organizations.

Afghan Holding, is another example of a company that has taken a lead with funding and developing products such as Buber, a taxi hire service in Kabul connecting car owners offering a ride with commuters seeking a ride. The smart phone application is available both for Android and IOS. The cabs could be hired online through application and the payment can be done in cash, credit card issued by Azizi Bank, Hesab Pay as well as a Buber wallet. The app allows users to add family members/friends who can track the car ride as an extra measure of security.

Source: UNCTAD, based on company interviews

⁶ <https://www.livemint.com/Companies/p9CbikQbcJ76XGlasOxUto/Afghan-shoppers-go-online-to-avoid-bombs-sexual-harassment.html>

⁷ As noted in Altai Consulting/USAID, *ICT in Afghanistan: Economic Impact Assessment, 2014*

⁸ *Ibid.*



Another major achievement is the payment of salaries through mobile phones. Initiated in 2009, 97 per cent of the police force and 73 per cent of the Government officials were registered in the mobile pay system in 2016. In the case of the police force, apart from cutting costs by 10 per cent, the use of mobile payments has aided transparency and anti-corruption efforts due to the inherent tracking and trackability that accompanies mobile payments. The bulk of e-government services offered to citizens is via m-apps.

The rapid adoption of these applications has a spillover impact on e-commerce development given that it encourages users to be comfortable transacting over a virtual medium. This is especially important for Afghanistan given that enhancing the confidence of consumers to adopt card payments will most likely remain a long-term goal.

A specific department (Electronic Government directorate) has been established within MCIT to oversee implementation of the e-governance strategy. The department also manages the design and upkeep of more than 100 government websites.

Participation of women in economic activities remains low, particularly outside Kabul.

Social and economic mobility for Afghan women is relatively limited and is a key barrier for participation in economic roles. Women face significant challenges in owning land, accessing loans and undertaking essential activities such as marketing and business development. In this regard, e-commerce can help develop visibility for women-owned products in a way that is comfortable for the entrepreneurs themselves and aligned with the social and religious fabric of the country.

The Afghanistan Women Chamber of Commerce and Industry (AWCCI) is a leading voice for Afghan entrepreneurs and has advocated for inclusion of e-commerce within the overall national development agenda of the country on one hand, and the generation of opportunities for women on the other.

A National Priority Plan called the Women Economic Empowerment National Priority Program (WEE-NPP) was initiated in 2018 with support from the World Bank and under the guidance of Ministry of Labor, Social Affairs, Martyrs and Disabled. The main components include financial literacy and inclusion,

market agriculture, legal reform, gender statistics, and SME access. Given the national scope of the WEE-NPP, and the economic empowerment focus, market-side components in the programme need to consider developing a focus on e-commerce.

E-commerce components should be integrated further in development projects.

An important need exists for ensuring that development partners integrate e-commerce components in any sector development initiatives involving a market-side dimension. Numerous development projects aimed at sector development have stressed the need to bring markets closer to Afghan businesses but have struggled to make this a reality, given that externalities related to market development are harder to manage than domestic supply side challenges, even despite the security conditions. This is a natural consequence of the fragile security challenge. This will require close collaboration between development partners and the Government to ensure that there is alignment with the national development agenda and the country's priorities.



2. ICT INFRASTRUCTURE AND SERVICES

The Afghan telecommunications sector has been a success story significantly because of Afghan-led efforts supported by long-term partners, including the World Bank and the US Government (through USAID and other agencies). The well-governed regulatory environment for the sector has boosted investment, and facilitated entry of multiple competitive MNOs, while ensuring that affordability and coverage for citizens remains a key focus. Infrastructure projects such as the Optical Fiber Loop, Digital CASA and others such as the development of a Telecommunication Development Fund (TDF) bode well for further improvements in Internet access while improving international linkages. The mobile voice market is maturing rapidly with some concerns about operator profitability and need to diversify into value-added services based on mobile broadband. The ISP segment is going through a phase of consolidation, driven by a high competition by Afghan Telecom and MNOs offering 3G, as well as by an expensive operational structure. At the moment, fewer than 12 per cent of individuals use the Internet.

While mobile penetration stands at 67.4 per cent, mobile broadband – an important ingredient for m-commerce – is slow on the uptake with only 16 per cent of users. To spur consumer demand, costs, content, applications and other factors will need to be improved. The role of the state-owned Afghan Telecom will need to be reviewed because this has influence both on future of ISPs and fibre-based broadband coverage/costs/competition. Keeping in mind the security considerations and for safeguarding MNO investments, the role of TDF as an insurance mechanism must be examined. The established of NIXA is a positive development that will reduce latency times, create cost savings for local data and help to develop a market for local content and e-commerce.

2.1 Policy framework governing the telecommunications sector

The telecommunications sector has undergone rapid policy and infrastructure-based reform in the past two decades.

The telecommunications sector reform process began in the early 2000s and involved liberalization of the sector as well as the establishment of the independent Afghan Telecommunications Regulatory Authority (ATRA) in 2006, through the Telecom Services Regulatory Act of 2005.

The Ministry of Communications and Information Technology (MCIT) is the lead Ministry tasked with developing the physical infrastructure and executing policies related to Afghanistan's communications, IT and postal services. ATRA operates within the framework of MCIT.

The policy framework governing the telecommunications sector is comprised of four instruments - Telecommunications and Internet Policy (2003), Telecommunication Services Regulation Act (2005), the Universal Access Policy (2008) and the Open Access Policy (2012).

The Telecommunications and Internet Policy

was one of the first policy instruments enacted to rebuild a sector devastated by war, with the principal goals of promoting private investment and sector liberalization. A guiding document with far-reaching effect, it is credited with developing a conducive business environment for telecom investors planning investments in the country, which gained further traction with the passing of the Telecommunications Services Regulations act.

The Telecommunication Services Regulations Act

was responsible for the creation of ATRA as a regulatory body overseeing the operators, and “licensing regime and procedures, interconnection, co-location, scarce resources management, universal access, competition policy, penalties, sanctions, tariffs, and dispute resolution”⁹. ATRA is also charged with establishing access to telecommunications services across the country and ensuring availability for citizens and consumers.

The Open Access Policy

was established to develop a competitive, fair play environment for retail telecommunications providers to offer high-speed Internet and related services that are affordable

⁹ Altai Consulting/USAID, ICT in Afghanistan: Economic Impact Assessment, 2014



to citizens, in a way that also allows the service providers such as ISPs to make reasonable profit. The policy includes principles of non-discrimination, transparency, and cost-based pricing. As part of the Open Access Policy, the Government has signaled its intention to remove monopoly in the Internet sector.

The major focus of the open access policy was to develop competition and allow the MNOs to build, own and operate fibre-optic cable lines, including resale. As such, it ended the AfTel monopoly. As a result, some of the companies have begun to invest in fibre construction, in many places ending reliance on what is considered inferior AfTel fibre and service quality. There are still questions about the proper role of AfTel in this competitive environment, whether AfTel is or can be regulated under the same rules as its competitors, or whether it will continue to enjoy competitive advantage.

The universal access policy has three stated objectives, to:¹⁰

- Put mechanisms into place that encourage investment for the development of rural communication networks;
- Improve the socioeconomic conditions of the rural areas by providing access to ICT; and
- Fill the access gap in rural areas by subsidizing rural projects that are commercially viable, and also projects that are not commercially viable but deemed necessary by the Government of the Islamic Republic of Afghanistan (GIRoA).

To operationalize the universal access policy, the TDF was established, managed by ATRA (which is in charge of managing overall universal access) and funded through the six telecommunications operators.

In order to fulfill its role as regulator, it is important for ATRA to maintain a visible and independent role as impartial administrator of the country's telecommunications sector. It should not be perceived or function solely as an extension of MCIT within whose framework ATRA was created. While the eTrade Readiness Assessment did not conduct interviews to assess this, a recent study¹¹ notes that there is a perception of bias among MNOs related to the state-owned Afghan Telecom in terms of the

waiver of licensing fees payments. There is also a need to ensure that ATRA's technical and human capital capabilities to enforce regulations are fulfilled.

Despite the promising growth trajectory of the telecommunications sector, there are important constraints. The sector has seen challenging decline since the withdrawal of troops and western NGOs among other actors, and like other sectors, the impact of this market segment loss has been felt on the operators in the form of reduced subscribership and revenues. There is some dissatisfaction with the pace of competitive reforms and perceptions of anti-business actions including the 10 per cent "top-off" tax on SIM cards, costly delays and negotiations as were seen for the fibre licenses, and unexpected actions such as the government's demand for payment in exchange for fees to renew the 3G licenses, which the MNOs claimed were no longer operative after later issuance of technology neutral licenses. Several operators are reportedly looking for exit strategies from Afghanistan. Actions such as the decision to award spectrum to Alokozay non-competitively have also posed challenges for operators who are already struggling with the crowded market space and have raised questions about governmental transparency and sector regulation.

Restructuring Afghan Telecom may be an essential component of further increasing the sector's competitiveness and ensuring continued investments from private operators.

The role of the 100 per cent state-owned Afghan Telecom (previously operating only in the fixed line market, but now also venturing into the mobile telephony market through its acquisition of Salaam) has been a source of debate for many years, primarily regarding the perceived bias towards the operators in an already crowded and increasingly profit-starved operating environment. Afghan Telecom is the sole operator of the optical fibre backbone network. A number of factors require clarification related to the role of Afghan Telecom including:

- Monopoly on international and domestic fibre connectivity resulting in a high wholesale transit pricing per Mbps. This cost is passed on to consumers resulting in unaffordable costs for high-speed Internet.

¹⁰ Altai Consulting/USAID, *ICT in Afghanistan: Economic Impact Assessment, 2014*

¹¹ *Ibid.*



- Afghan Telecom acts as a wholesaler of bandwidth to ISPs, but also acts as an ISP itself, thereby functioning as a formidable competitor with the ability to maintain lower prices than the main ISPs.
- Waiver of licensing fees in the past—which the other operators are expected to pay.
- Afghan Telecom is both as the operator and beneficiary of the optical fibre network, and the future evolution of this role is in question given that the Government has stated its intention to privatize Afghan Telecom. This monopolistic position may also affect mobile-broadband costs.

The cumulative impact of the above may also contribute to the fact that despite good international connectivity, a solution for high-volume, affordable international bandwidth is yet to emerge in Afghanistan. As noted in a report assessing the economic impact of ICT in Afghanistan, consideration should be given to splitting Afghan Telecom into several entities corresponding to its current activities: (1) a low-level network infrastructure operator, in charge of the national Optical Fibre Communication (OFC) network and given a central role in incident response; (2) an ISP, given Afghan Telecom's current Internet retail and low-scale wholesale activities; and (3) a mobile network operator. These activities should at least be functionally and financially separated within Afghan Telecom as a good management practice, as it will facilitate oversight by the regulator. Moreover, Afghan Telecom seems to currently lack the capacity to operate efficiently in all these segments of the market. A large restructuring process, in human resources and capacity-building is needed.¹²

2.2 Broadband / mobile penetration

The mobile telephony market is maturing rapidly with some concerns about operator profitability and the need to diversify into value-added services.

Fairly brisk competition between the six active MNOs exists, resulting in a rapid growth in geographical coverage and adoption of mobile telephony services. Ninety per cent of the population have coverage for a mobile voice signal and most consumers on average

utilize multiple SIM cards to benefit from promotional offers from vendors. The mobile operators have made significant investments and have benefited from prudent regulatory and policy support from ATRA and MCIT.

The telephony sector is now maturing, and future growth will be dependent on a number of factors. The high degree of competition in saturated markets such as Kabul and provincial capitals has now balanced out/stabilized market shares in terms of voice services. The intense competition has exerted downward pressure on prices, affecting operator profits. Operators may be unwilling to invest in further geographical coverage expansion in provinces where the security situation is volatile. Even with the medium-term demographic dividend from Afghanistan having a young population providing moderately strong growth possibilities, the market opportunities stemming from further geographical growth for voice services may be limited.

The profitability and growth potential now depend on mobile broadband. Increasing coverage and adoption rate among the consumers in the future is expected to compensate for the decreasing margins from voice-based revenue. This shift of profits from data revenue will likely be dictated by:

- ✓ Deploying pricing structures affordable to consumers, while at the same time allowing companies to maintain a long-term profit-based scenario.

Table 3: ICT Access Indicators

Access	2018
Fixed telephone subscribers (per 100 people)	0.3
Mobile cellular subscribers (per 100 people)	67.4
Fixed (wired)-broadband subscriptions (per 100 people)	0.3
Mobile broadband subscriptions (per 100 people)	16
Internet users (per 100 people)	11.4
Households with a computer (per 100 households)	3.4
Households with Internet access at home (per 100 households)	5.7

Source: ITU, 2018

¹² Altai Consulting/USAID, *ICT in Afghanistan: Economic Impact Assessment*, 2014



- ✓ Enhancing awareness among consumers about the benefits of broadband mobile and value-added services that accompany it (such as mobile money).
- ✓ The willingness of the financial sector and telecommunication firms as well as other private sector actors to develop value-added services which will boost data usage.
- ✓ The continued regulatory environment fostering private sector investment and allowing value-addition (mentioned above) to take place.
- ✓ Long-term security gains in geographical areas hitherto not accessible/suitable for investments.

Mobile broadband uptake has been slow, as opposed to mobile phone usage which has risen sharply post-liberalization.

Phone-based data usage is low compared to voice usage due to coverage, prices, consumer awareness, and content. First, 3G is currently only present in the main cities and further expansion will depend on the appetite of MNOs to undertake risks, especially in the highly competitive environment, security considerations, and their assessment of the profitability of expanding infrastructure in non-capital areas. Second, costs are high and can reach up-to US\$ 150/mbps, placing mobile phone-based Internet access firmly out of reach for much of the population. The high costs are a function of high capital expenditures/operating expenditures costs for MNOs, due to energy, security and maintenance costs that are relatively higher compared to other countries in the region – these costs are transferred on to the consumer as reflected in the relatively high prices. Costs of 3G compatible handheld devices are relatively low and affordable by regional standards, but still challenging for Afghan households. Third, consumer awareness and literacy are other factors. Compared to voice usage, data usage requires a certain degree of user awareness, which is surely but slowly developing. Fourth, content development is also limited in terms of newsfeeds, mobile-based apps and other aspects, although the Afghan IT sector is fast developing capabilities to develop relevant human capital such as mobile application developers (more so through enterprise level training rather than through

skills providers) to cater to this as the demand side requirements grow.

ISPs have played an important role in increasing Internet penetration in the country, but the segment is expected to go through a period of consolidation due to several growth challenges.

There are currently more than 50 licensed ISPs operating in the country, and perhaps an equal number of un-licensed ISPs.¹³ The ISP community has established itself well in the last decade and has a deep recognition of the needs of the local market.

The segment is now facing challenges especially due to the high competition from Afghan Telecom, which is the sole operator of the optical-fibre network and plays a dual role as a wholesale seller to other/smaller ISPs as well as functioning as an ISP itself. Another key challenge has been high operational costs due to energy and security requirements. Given these dynamics, a number of ISPs are expected to cease operations and the sector will also see consolidation through mergers and buyouts. One of the key challenges of the increasing cost structure of ISPs has been that all ISPs have their own gateway and all Internet traffic is routed internationally. An Internet exchange point (NIXA) has been established for ensuring that local traffic is routed locally, which will reduce costs/latency period, and bodes well for e-commerce/digital businesses.

¹³ Altai Consulting/USAID, *ICT in Afghanistan: Economic Impact Assessment, 2014*



Box 2: Licensed Telecommunication providers

Six major telecommunications operators are active in Afghanistan, including five 3G licensed MNO (mobile network service) providers. The providers are AWCC, Roshan, Etisalat, and MTN, AfTel-owned Salaam, plus the nearly-certain new entrant, Alokozay (previously Wasel). Several 4G networks have also been launched in the recent years, however the coverage is limited to Kabul. Roshan commands the market share for the mobile services customer base with MTN accounting for 26 per cent and AWCC and Etisalat accounting for nearly 20 per cent each. Under their existing licenses, the MNOs may provide 4G service, and have rolled it out in some cities on a very limited basis. More extensive rollout is expected after more spectrum becomes available. State-owned Afghan Telecom provides national landline coverage, while Wasel Telecom covers the northern Afghanistan regional base for landline services. Afghanistan also has a satellite communications capability in the form of the Afghansat satellite managed by MCIT with technical and financial management shared with Afghan Telecom.

Alokozay is a new development. The High Economic Council (HEC) approved Alokozay purchase of the CDMA provider, Wasel. The HEC has now taken action to allow Alokozay to obtain additional spectrum in exchange for a payment of US\$ 65 million. It can now operate as a full competitor to the other MNOs and will be eligible to participate in planned 4G spectrum auctions to be held by June 2019. The HEC will be involved in the decision leading to the final awards.

The sector has come a long way since the immediate post-conflict period in 2002 when citizens had to often travel across the border to Iran and Pakistan to access telephone services. Fast forward to 2013, a reported US\$ 2 billion private sector investment led by Roshan, Afghan Wireless, Etisalat and MTN (who account for a total US\$ 1.5 billion together) has transformed the sector and provided significant economic and socioeconomic contributions to Afghanistan. According to quoted 2013 USAID¹⁴ statistics, the Afghan ICT sector generated an estimated revenue of US\$ 1.8 Billion in 2013 and employed 130,000 Afghans. It is the country's greatest source of FDI, one of the biggest contributors to GDP, largest remitter of taxes to the Government and functions as the biggest licit employer. It is anticipated that once the required infrastructure is developed, Afghanistan stands to benefit from US\$ 1 billion from data transit tariffs and provision of information services and content throughout central Asia.¹⁵

The indirect benefits of the sector on connecting families/communities as well as the spillover effect on the broader private sector is immense. Indeed, research suggests that the next big frontier for the telecom sector in the country would be to capitalize on data enabled services, which could help develop the emerging ecosystem of application developers and content providers. Of course, e-commerce would benefit from this directional shift as well.

Source: UNCTAD based on SIGAR 16-46 Audit Report. <https://www.sigar.mil/pdf/audits/SIGAR-16-46-AR.pdf> Original sources are included

2.3 Reliability/affordability/latency/speed/coverage

The ICT sector has made significant contributions in terms of direct GDP growth and socioeconomic contributions in terms of employment, as well as other benefits stemming from digitization of the economy.

The ICT sector has been a significant success story in Afghanistan. The sector's evolution followed a path of unregulated expansion in the early 2000s to a well-regulated current state involving significant competition aimed at expanding affordable coverage throughout the country. A well-thought-out reform agenda along with competent institutions providing oversight on the ICT sector has introduced benefits for the economy, citizens, and the private sector. The sector has brought communities together in a time when the country was at the point of fracture from internal strife.

The telecommunications sector has brought in US\$ 2 billion in investments over the last decade, resulting in enhanced coverage and depressed prices for consumers. Twelve years ago, a SIM card cost US\$ 250 and a local call cost 0.35 US\$ per minute. These figures dropped to US\$ 2 for a SIM card in 2013, and per minute calls costing less than 0.05 US\$ per minute.

The Telecommunication Development Fund (TDF) is an important mechanism for realizing the goal of universal coverage.

The TDF is a Universal Access Fund managed by ATRA and funded by a 2.5 per cent contribution of net profits from the main MNOs. The fund is aimed at universal coverage of telecommunications services across the country (through the establishment of infrastructure in underserved areas to enhance coverage). The scope has expanded to funding pilot projects, facilitating inter-linkages between public universities, among other projects for beneficiaries including telecentres,

¹⁴ SIGAR

¹⁵ Ibid.



schools, health centres, and services for impaired/elderly. Proposals have also been floated for the TDF to serve as an insurance fund to mitigate risks of MNOs against acts of terrorism (multiple instance of which have taken place) against operator facilities such as cell-phone towers. Some MNOs are still asking that the TDF be used to replace towers and other infrastructure destroyed during the war. Having such an insurance scheme may be essential to safeguard private sector investments, especially given that existing insurance companies in the country cannot cover the large telecommunications sector.

There have been recent efforts to audit the funds and to reform how they could be used. Some reforms have been made, although full details on transparency and implementation of reforms are not yet available.

2.4 Major infrastructure projects

A number of infrastructure projects have been started/planned with the core focus of enhancing connectivity of Afghanistan within the country itself, and with the Central Asian region and beyond.

In doing so, Afghanistan is seeking to position itself within the “Digital Silk Road” linking Central Asia with Europe and South Asia. Regional linkages and connectivity are emerging as an area of focus in line with the broader ambitions of the country. Afghanistan is currently connected to all of its neighboring countries (except China) through terrestrial fibre optic networks. The Digital CASA Project, connecting Afghanistan to China, Central Asia, and Europe through fibre through the Wakhan corridor has started and is anticipated to be completed in 2019. Notably, two MNOs (including AWCC) have received licenses to deploy national fibre networks, with Roshan perpetually awaiting its license pending resolution of tax claims against it.

Optical Fibre Ring Backbone: Work started in 2007 with support from the World Bank and the Government of Afghanistan. The backbone network is geographically situated around the Ring Road and connects to the provinces, and also facilitates cross-border connections to Iran, Pakistan, Tajikistan, Turkmenistan, and Uzbekistan. An estimated total of 4.4 km fibre network is planned. The Open Access Policy governs the high-speed network to ensure a fair play environment for service providers. Security challenges continue to impede progress of the work

and some estimates suggest that only 60 per cent of the network is operational.

TAPI: The Turkmenistan-Afghanistan-Pakistan-India Pipeline (TAPI) is a natural gas pipeline (under construction) which will transport natural gas from the Galkynysh Gas Field in Turkmenistan to Afghanistan, Pakistan and India. As part of this project, deployment of a fibre optic cable along the pipeline route is envisaged, which will connect the three countries with Afghanistan. The cable will also be connected to the Trans-Eurasian Information Super Highway (TASIM), which will further link the Central Asian region with Europe, reducing latency and providing security through a redundant link.

Digital Central Asia and South Asia (DCASA): DCASA program is a World Bank-funded initiative that aims to improve regional connectivity between/within countries in the landlocked Central Asia region. Projects are being started in Afghanistan and the Kyrgyz Republic, and the budget for the Afghanistan project is expected to be in the area of US\$ 51 million. While the details are being threshed out, the main goals of this initiative are to expand and strengthen the regional and national level broadband connectivity based on optical fibre networks, boost digital society and economy through e-governance initiatives, and to prepare an enabling environment for the growth of ICT Sector in Afghanistan.

Fibre-optic link to China: A fibre-optic cable network project (supported by the World Bank) is slated to connect Afghanistan to China’s fibre optic network through Wakhan port. The anticipated benefits are access to quality Internet services at cheaper prices, which will contribute to promoting Internet services/usage within Afghanistan. Key partners as indicated through a memorandum of understanding (MoU) are China Telecommunications Corporation and Afghan Telecom.



3. TRADE LOGISTICS AND TRADE FACILITATION

Strategically positioned in Central Asia, Afghanistan can leverage its locational advantage for linking Europe, Central Asia, the Middle East, South Asia and East Asia, in addition to spurring regional trade. Over the past decade and a half, policymakers have made efforts to strengthen Afghanistan's physical and policy infrastructure to increase regional cooperation through bilateral and transit trade agreements, and participation in regional organizations such as SAARC and CAREC. The security challenges and transportation infrastructure, especially inter- and intra-province level, continue to impede freedom of movement of goods and people. Challenges experienced with APTTA and others have contributed to the rise of multiple air corridors with important target markets such as India, Turkey and UAE. This bodes well for e-commerce as well.

From a trade facilitation standpoint, the accession to the WTO and ratification of the TFA (plus establishment of accompanying structures such as the trade facilitation committee) are important steps, although important reform is required to develop an efficient trade facilitation regime aligned with international systems. Significant improvements have taken place in customs reforms and modernization.

The challenging movement restrictions in Kabul are both a business case driver in favor of e-commerce and an impediment to order fulfillment and last mile delivery. Within the country, the post office can play an important role, but significant capability development is required. Here the role of international partners such as the Universal Postal Union (UPU) will be essential, especially in fulfilling the goals of the Operational Readiness Assessment (ORE) project, and further developing physical addressing down to the last mile level.

3.1 Mode of delivery, last mile delivery

Order fulfillment is a significant challenge due to the mix of movement restrictions, security risks, as well as inadequate physical addressing. Intra- and inter-provincial transportation infrastructure is a significant challenge.

The combination of the factors listed above has made it difficult for emerging firms to maintain consistency and reliability in delivering orders to customers. The security risks for logistics delivery personnel is amplified by the high dependence on cash as a payment mechanism.

The fact that ease of movement is a challenge in Kabul (and beyond) is also a business case driver for e-commerce given that consumers may wish to benefit from the convenience of goods and services delivered to them. Beyond Kabul, security risks are a significant impediment to efficient e-commerce operations. High vehicular traffic congestion results from excess vehicles on roads that the existing road infrastructure cannot accommodate. In certain provinces, administrative capacities are significantly weak owing to security challenges, creating another barrier for logistics services.

Intra- and inter-province transportation is constrained by not only security challenges but also transportation infrastructure constraints related to limited capacities of logistics providers and the road infrastructure. While this is not currently a significant barrier to e-commerce development given that the sector is in the early stages of maturity, this will pose challenges to scale in the future if not addressed.

The postal system is geared to eventually play an important role in e-commerce growth in the country.

The headquarters of the Afghan Post Network is based in Kabul with 25 post offices in the city, plus one central post office in the center of every province, totaling 463 post offices across the country. Recent developments have included the establishment of a four-digit national postal code system (with UPU's support), although street addressing is still a significant challenge. Conflict and lack of city planning has contributed to the weak last mile delivery challenge that results from inadequate physical addressing.

The rise of mobile phone has further reduced the dependence on the Afghan Post system, which has not been modernized since 2001 and has not evolved to offer diversified services.



Afghan Post provides an Express Mail Service (EMS) called Shaheen Post which guarantees expedited international delivery with Internet tracking within 2-3 business days, suitable both for merchandise and documents. The process for inbound operations conforms to EMS norms and normally delivered within 1-5 working days throughout the country. Multipurpose Community Telecenters (MCTs) are located in post offices in Kabul and 11 provincial capitals and provide a number of services including email access, money transfer and salary payments.

Air corridors have positively affected export growth, especially for agricultural products.

A number of air-corridors have been established between Afghanistan and regional markets to boost exports through the air-freight option. In 2017, the first air-corridor was opened with India and has since expanded to Saudi Arabia, UAE, Kazakhstan and Turkey. Regular cargo flights operating from Kabul and Kandahar have now expanded to three principal metropolitan cities in India – Delhi, Mumbai and Kolkata.

The main exports have been fresh fruits, medicinal herbs, saffron and other traditional Afghan exports such as carpets. For perishable goods especially, the air corridor approach offers a good conduit for exports and therefore sector growth. In the recent past, the

fresh fruits sector has suffered significant losses due to delays at the Pakistan border stemming from political challenges. These air-corridors are based on a need to find alternative logistical routes in a mountainous Land Locked Developing Country (LLDC) affected by persistent security and political concerns.

Export development through air delivery is yielding results. Exports through air amounted to US\$ 323 million between January-October 2017, a 29 per cent gain over 2016 figures driven largely by increased fruit exports to India.¹⁶

3.2 Trade Facilitation

Trade facilitation is an area of emerging reform in Afghanistan.

The country acceded to the WTO in 2015, has been a member of the World Customs Organization (WCO) since 2010, and has joined several international conventions that have a bearing on international trade such as the WTO TFA and the Customs Convention on the International Transport of Goods under Cover of TIR Carnets (TIR Convention, 1975). The TFA is a global and legally-binding agreement aimed at facilitating efficiency between domestic stakeholders such as customs, ministries involved in trade facilitation, and with counterparts in other countries. This has strong implications for streamlining movement of goods

Box 3: Operational Readiness for E-commerce Project

Afghanistan is participating in the UPU's regional key strategic project for quality of service improvement for the 2017–2020 cycle, Operational Readiness for E-commerce (ORE). This project aims to ensure that Posts are prepared for seamless cross-border e-commerce. The project is being implemented through an integrated approach based on five pillars, including the minimum operational requirements for all products and services, visibility along the operational pipeline, data quality related to the compliance with quality standards and targets, supply chain integration and end-to-end reliability.

Through this project, the UPU provides the necessary support for the implementation of a reliable, traceable and affordable integrated postal product portfolio to meet the need of customers and e-retailers. The project aims to assist Afghanistan to achieve:

- better visibility through track and trace;
- consistent, trustworthy and reliable end-to-end (E2E) delivery times;
- a move away from paper-based to paperless processes through an integrated supply chain (customs, airlines etc.);
- seamless transport and customs clearance by means of good quality data captured at the source;
- ability for customers to choose delivery locations;
- simple and reliable returns process; and
- flexible customer service process.

Afghanistan has a defined country ORE roadmap and is working on the implementation of the related action plan, with assistance from the UPU.

Source: UPU

¹⁶ <https://www.sigar.mil/pdf/quarterlyreports/2018-07-30qr-section3-economic.pdf>, page 152



across borders as well as building technical capacities in national trade facilitation systems where needed, with the overall goal of global synchronization. As a consequence of the high number of technical initiatives and consultations in preparation for the country's participation in several international instruments and organizations, the awareness among public sector actors in the area of trade facilitation has increased.

In 2006, a National Trade Facilitation Committee (NTFC)¹⁷ was established with the assistance of UNCTAD. The NTFC is comprised of the key ministries and agencies dealing with trade, and so also serves as a valuable platform for trade and private sector-based issues. Indeed, the TFA, its accompanying structures and global endorsement serves as a valuable mechanism for resolving trade facilitation challenges in a practical manner. It should be noted that the mandate of NTFC, named Inter-Ministerial Committee on WTO and Trade Facilitation Agreement (IMCWTF), is not limited to trade facilitation but includes all WTO related issues.

Significant improvements have taken place in customs reforms and modernization.

Assisted by UNCTAD and a number of international technical partners, Afghanistan has made significant

reforms with the Afghanistan Customs Department (ACD). Since its introduction in 2010, ASYCUDA World has been deployed at all Border Control Points (BCPs) and Inland Customs Depots (ICDs) in the country. Another area of reform was the establishment of a Customs Academy to improve training and professionalize ACD's workforce. Current priorities are in the area of risk management and corruption eradication.

Despite significant improvements, processes need to be simplified and harmonized; inter-agency coordination is important. Access to information for exporters and traders, especially in cases where fees/processes have changed, is another area of weakness requiring redressal. According to the National Export Strategy, the focus must be shifted to conducting inspections using a 'risk-based and science-based approach', aiming to reduce the high number of physical interventions in a resource-constrained environment.

According to UNESCAP's Trade Facilitation and Paperless Trade Implementation Survey (2017)¹⁸, there was a need for Afghan policymakers to focus trade facilitation efforts on aspects such as e-single window, e-air cargo manifests, e-preferential certificate

Table 4: Afghanistan's performance in the region across trade facilitation and logistics indicators

Economy	Trading Across Borders rank ¹⁹	Logistics Performance Index (LPI) ²⁰	Time to import/export ²¹	Cost to import/export ²²
Kyrgyz Republic	84	108	73/41	712/590
Kazakhstan	119	71	8/261	0/894
Tajikistan	144	134	234/141	483/643
Uzbekistan	165	99	285/286	570/570
Iran, Islamic Republic of	170	64	411/253	857/708
Pakistan	172	122	276/134	1,743/734
Afghanistan	175	160	420/276	1,650/797

Source: UNESCAP's Trade Facilitation and Paperless Trade Implementation Survey (2017)

¹⁷ Established in 2016 and based on Presidential decree under the name of Inter-ministerial committee on WTO and Trade Facilitation. There are around 20 agencies including customs, MAIL, MoPH, Transport, MOCIT, DAB MFA and the private sector involved in the NTFC. The NTFC is chaired by MOIC and conducts its regular meetings in policy level and technical level. The NTFC has developed a 15-year strategy named 'WTO post accession Strategy 2016-2031' and supervises its implementation

¹⁸ <https://www.unescap.org/sites/default/files/TFcountrynote-Afghanistan2017.pdf>

¹⁹ Doing Business Trading Across Borders Indicators 2017; 190 countries assessed

²⁰ Logistics Performance Index 2018; 160 countries assessed

²¹ Doing Business Indicators 2017; Units in hour

²² Doing Business Indicators 2017; Units in US \$



of origin, e-payment of duties, and e-application for customs refunds, falling under the paper-less trade domain. Other reforms recommended by the survey included supporting pre-arrival processing for transit facilitation, pre-arrival processing, post-clearance audit, separation of release from final determination of customs duties, taxes, fees and charges; establishment and publication of average release times, trade facilitation measures for authorized operators, expedited shipments; and acceptance of paper versions of electronic copies of supporting documents required for import, export or transit formalities. The survey also recommended active participation in the new regional Framework Agreement on Facilitation of Cross-border Paperless Trade in Asia and the Pacific.

Afghanistan has some of the highest duration and monetary costs for importing and exporting among countries in the region. Delays at border crossings, lengthy clearance procedures, governance issues, as well as weak control measures have been identified as the main problems affecting movement of goods at border crossings. Waiting times for trucks at border crossings can be inordinately higher than the regional averages.

Afghanistan has 12 land border crossings/Border Control Points (BCPs) – with Turkmenistan (2), Iran (3), Tajikistan (3), and Pakistan (3), and Uzbekistan (1). Seventeen Inland Customs Depots (ICDs) are used for goods clearance rather than these overland crossings. Transportation from the BCP to ICDs for inspection involves a range of challenges resulting in cost and time burdens. These challenges range from uncoordinated official checkpoint inspections by different agencies, solicitation of unofficial payments, as well as long waiting times at each checkpoint. Recently conducted studies have revealed losses of 1-2 hours for a 5-hour journey by transporters, which is significant when volumes are added-up.

Transit trade represents a significant opportunity for Afghanistan, however, scale and quality of implementation will be the critical deciding factor.

Afghan policymakers would like to strengthen its position as a regional transit hub in Central Asia and beyond. Strategically positioned in Central Asia, Afghanistan can serve as a conduit for linking Europe, Central Asia, the Middle East, South Asia and East Asia, in addition to spurring regional trade. The landlocked nature of the country can be harnessed

as a comparative advantage. Towards this end, Afghanistan's logistics providers have a wide market available if the country's ambition as a transit trade hub is attained. This will have spillover impact on capacity development from an e-commerce perspective as well. The transit trade potential extends to e-commerce as well. Given the strategic positioning of Afghanistan, economic free zones, fulfillment centers and other logistical facilities could help develop its regional transit position vis-à-vis e-commerce.

Policymakers have taken steps towards developing transit trade. From a policy perspective, agreements have been signed with India (2003), Iran (2006), Pakistan (2010), Russia (2011), Kazakhstan (2011), and Tajikistan (2011). Afghanistan is an active member of regional organizations including the South Asian Association for Regional Cooperation (SAARC) and its free trade area, the Central Asia Regional Economic Cooperation (CAREC), as well as the Economic Cooperation Organization Free Trade Agreement (ECOTA). Afghanistan is a beneficiary of India's Duty-Free Tariff Preference Scheme and also of the GSP/PTA/DFQF schemes. Afghanistan's agreement with Iran and India over the use of Chahabar Port opens an alternate route for Afghan products. This is in addition to the Lapis Lazuli Route Transport and Transit Agreement with Azerbaijan, Georgia, Turkey, and Turkmenistan, which will further link Afghan products to the European and Central Asia markets.

Despite significant improvements and the country membership in several agreements, the biggest challenge now lies in implementation, which sometimes faces political challenges such as in the case of APTTA where political challenges with Pakistan and between Pakistan and India have clouded the efficient implementation of the transit agreement.



4. PAYMENT SOLUTIONS

Cash remains the main medium of financial transactions in a traditional society not used to digital transactions and with a strong reliance on informal financial networks such as Hawala. The legal framework for electronic payments is improving, and key regulations for electronic money institutions offering Cash Card, Debit Card, Electronic Mobile Wallet, Stored Value Account Cards have laid the fundamental basis for such electronic transactions including mobile money. However, consumer awareness and confidence in mobile money and other e-money solutions is still quite low, and a concerted effort is required to address this.

Increased interoperability is required to address fragmentation in Afghan payment sector landscape, and the Afghan Payments System (APS) is a central part of this strategy aimed at improving interoperability between mobile banking/money products, commercial banks and other Electronic Money Institutions (EMIs) such as Payment Service Providers (PSPs) providing value-added services. Afghanistan has made promising developments in its Anti-Money Laundering (AML)/Combating the Financing of Terrorism (CFT) regime, leading to delisting of the country in 2018. Further reforms are anticipated, such as strengthened controls and implementation of the cross-border regulations at official land border crossing points.

Cash is the main payment mechanism utilized in Afghanistan.

E-money, including card-based and mobile money solutions, is a relatively new phenomenon in Afghanistan and will take time to gain traction with a consumer base that has weathered continuing periods of strife and unrest on one hand, and witnessed banking scandals in the recent past. It will take time until the continuing reforms result in restored confidence and raised awareness with consumers. Until that time, cash remains the main source of payments utilized in Afghanistan. As discussed, mobile-money usage is still very low. Typically, mobile money is an acceptable middle ground solution between cash and fully card-based solutions, but it is still in the early stages of development and consumer uptake.

There is a need to improve trust in DFS solutions in a society that is traditionally cash dominated. Reliability of mobile wallets, easy access to cash-in and cash-out points and the security of carrying out electronic transactions over mobile phone versus cash, plus increasing the payment ecosystem will all play an important role to increase uptake.

An important consideration for the long term is the dollarization of the Afghan economy and the reliance on US dollars versus Afghanis for even small transactions. Providing the ability to transact in 'hard currency' will play an important role in uptake of DFS, although in the short-term, the reliance on dollars will need to continue as a stabilizing factor.

4.1 Financial Regulations

Electronic Money Institutions (EMIs) are developing at a rapid pace.

EMIs have exhibited relatively rapid growth in recent years due to regulatory support and guidance under the leadership of DAB, and due to the relatively sophisticated ICT infrastructure. The leadership exhibited by MNOs, which themselves invested in mobile money solutions, accompanied by the rapid growth of ISPs, as well as a young IT savvy population, has led to the emergence of a range of PSPs that are starting to develop innovative solutions.

EMIs are allowed to develop the following type of services:



Table 5: Types of services allowed for EMLs in Afghanistan

Basic services	Advanced Features
Peer-to-peer (P2P) or Person-to-person transfer	Mobile Banking
Bill Payments	Microfinance
Airtime Top-up or Electronic Voucher reload	Microcredit
Money Transfer or Remittance	Micro insurance
Domestic payments (within Afghanistan)	
International (outside Afghanistan)	

Source: DAB, *Regulation on the licensing, regulating and supervising of Electronic Money Institutions (EMIs), 2016*

Table 6: Pertinent laws for preventing financial mismanagement

Law	Details
The Anti-Money Laundering/ Proceeds of Crime (AML-PC) law criminalizing money laundering in the country. Amended in 2015.	The law aims to protect and promote the financial integrity of Afghanistan and fight against the use of the financial institutions and designated non-financial businesses and professions (DNFBPs), for money laundering, proceeds of crime, the proliferation of weapons of mass destruction and the financing of terrorism. ²³
Counter Financing of Terrorism law (CFT), amended in 2015, criminalizes terrorist financing.	The purpose of this law is to implement the International Convention for the Suppression of the Financing of Terrorism (1999) and its successor conventions, prevent provision of funds or property for terrorist acts, terrorist organizations, or terrorist(s); and implement UN Security Council Resolutions on combating the financing of terrorism and the financing of proliferation of weapons of mass destruction.
AML/CFT Responsibilities and Preventive Measures Regulation (2016).	The regulation requires all financial institutions to develop effective frameworks, preventive measures, systems, controls, and practices to manage their potential money laundering/terrorist financing (AML/CFT) risks. Financial institutions licensed to operate in Afghanistan should have adequate controls and procedures in place so that they know the customers with whom they are establishing business relationships and dealings. Adequate due diligence on new and existing customers is a key part of these controls.

Source: DAB

Progress has been made in improving the AML/CFT regime.

Afghanistan was delisted by the Financial Action Task Force (FATF) in 2017, five years after an FATF taskforce found strategic deficiencies. Thus, it is no longer subject to the FATF's monitoring process under its on-going global AML/CFT compliance process. The delisting is a sign of Afghanistan's intent to strengthen its framework against money laundering and terrorist financing. It is especially important in order to develop correspondent banking relationships, required for

modern financial transactions, and for developing direct relationships with banks in countries such as the United States (US), and in the European Union (EU). This is important for nurturing e-commerce transactions.

Of particular interest is managing the risk stemming from the large number of Money Service Providers (including Hawala vendors) as well as customs check at borders points to ensure that restrictions on physical movement of excess money/bullion etc. are monitored.

²³ Annual Report, *Financial Transactions and Reports Analysis Center of Afghanistan, 2017*



DAB has enacted a regulation that governs the requirements of EMIs on AML/CFT requirements.

The Electronic Money Institutions Regulation (2016) includes important tenets that are aimed at supporting consumer protection for users of electronic money in Afghanistan in its various forms. The regulation states in this regard that “the adequacy of the policy and the extent to which the EMI complies with its own policy will be a subject of DAB’s regular on-site examinations”. Practical measures will need to be taken to ensure enforcement of these regulations in order to safeguard the right of consumers.

The regulation states that the EMI must have a fully-articulated AML/CFT policy that addresses, and provides detailed mitigating strategies against the following potential AML/CFT risks:

- Risk that authorized agents will not fully implement customer acceptance and customer identification requirements.
- Risk that individual transactions, or patterns of transactions that are suspicious will not be detected.
- Risk that the e-money Subscriber Identification Module (SIM) will be used for e-money by someone other than the original, identified subscriber, for the purposes of committing fraud, money laundering, or terrorist financing. Mitigating strategies against this risk must address the possibilities that the mobile device, including the SIM, may be stolen, bartered, or be traded for cash. At a minimum, access to SIM must be restricted to those in possession of related Personal Identification Number (PIN).
- Risk that a fraudulent, money-laundering, or terrorist-financing transaction will be concealed by dividing it among multiple e-money subscribers.
- Risks that the e-money subscriber will acquire, possess, and utilize multiple SIMs, in contravention of this regulation.²⁴

4.2 Mobile Money Regulations

Regulations have been deployed for governing mobile money and e-payments.

Three regulations put in place by DAB govern the mobile banking, mobile money transfers and interbank transfers technical space.²⁵

- a. Regulation on the licensing, regulating and supervising of Electronic Money Institutions (EMIs)
- b. Regulation on Electronic Fund Transfers
- c. Regulation on domestic payment operations in Afghanistan

The regulation on EMIs specifically lays out a number of requirements that have important implication for e-commerce.

Regulations require EMIs to take certain steps to ensure a robust agent network. These include sharing the standard contract between the EMIs and agents, with DAB including outlined details on the contractual obligations and rights on both sides, as well as fees involved. The EMI is solely responsible for screening, selecting and supervising the e-money agents.

E-money denominations (which include usage of Cash Card, Debit Card, Electronic Mobile Wallet, Stored Value Account Card) must be limited to Afghani (AFN) currency only; e-money can be used to transfer and remit funds both for domestic and international use. However, initially all international remittance funds transfer via e-money can only be incoming and no remittances are to be transferred internationally. It is also the responsibility of the EMI entity to ensure that best practices and proper Know Your Customer (KYC) procedures are conducted during such international transactions.

²⁴ DAB, Regulation on the licensing, regulating and supervising of EMIs

²⁵ See <http://dab.gov.af/en/page/laws-regulations/regulations>



Table 7: Transaction limits for mobile money

From entity	To entity	Maximum amount per transaction	No. Of transactions per day
Business	Business	No limit	No Limit
Business	Consumer	No limit	No Limit
Consumer	Consumer	AFN 15,000	10 Transactions
Consumer	Business	No limit	10 Transactions

Source: EMI regulation

No transaction limits exist for consumer-to-business, business-to-business, or business-to-consumer transactions. Consumer-to-consumer mobile transfers are limited to ten transactions a day with a maximum limit of AFN 15,000 per transaction. The maximum amount that can be held in an e-money account is AFN 150,000 (US\$ 2,200). While an e-money account can receive incoming remittances from abroad (for international remittances, the maximum amount per mobile money transaction is AFN 150,000); it cannot be used to send money outside Afghanistan.

A well-developed KYC policy does exist for e-money, however there is a need to ensure proper implementation especially among PSPs and emerging players.

EMI entities are expected to strictly enforce KYC regulations established by DAB using a risk-based approach. The KYC procedures must include but are not limited to the following: Clear and Pre-defined Process; Customer Identification; Record Keeping and Retention; Covered Transaction Reporting; Suspicious Transaction Reporting; Rejection Transaction Reporting; and EMI Large Cash Transaction Reporting (LCTR). An EMI must report any transfer, inbound or outbound, of an amount equal to or greater than 10,000 AFN.

4.3 Main mobile and cashless solutions

Increased interoperability is required to address fragmentation in the payment sector landscape, and APS is a central part of this strategy.

The payments sector landscape in Afghanistan is evolving at a rapid pace, which necessarily brings about challenges of interoperability and standardization. Despite the number of PSPs that have recently emerged in the country, a key challenge is that they

are not interoperable, and are not yet operating under the DAB supervision (licensing).

The Afghanistan Payments System (APS) is the national switch of Afghanistan, developed to create an interoperable e-payment infrastructure ultimately linking banks (commercial and state-owned), Microfinance Institutions (MFIs), as well as other payment service providers such as mobile money solutions. Currently, six banks including Pashtany Bank, BMA, Ghazanfar Bank, Azizi Bank, Islamic Bank of Afghanistan, and Afghanistan Commercial Bank are linked to the APS involving a network of 90 interoperable ATMs.

The Government is encouraging stakeholders within the payments ecosystem to link with APS and, to this end, APS²⁶ is officially recognized by the Central Bank as the national Switch. The business case for APS is made through factors including standardization of merchant discount rates, low cost sharing of ATMs, scalability of the national card (AfPay), Internet and mobile payment switching, and integration with a number of e-government services such as Taxes, Breshna (electricity) Bills, passport fees etc. The agent banking network from existing PSPs spans more than 65,000 agents across the country, which has immense benefits for consumers as well as the companies if interoperability can be ensured.

By 2020, it is anticipated that APS will link with seven main commercial banks, three state-owned banks, two foreign commercial banks, five MFIs, three mobile money service providers, three foreign national payment switches, nine PSPs, plus e-government services such as SIGTAS, ASYCUDA, Breshna (electricity bill payments), and public service (Asan Kedmat). APS also serves to connect participating

²⁶ APS is established as a Limited Liability company and received World Bank support for development. Two international partners– BPC Banking Technologies and Emerging Markets Payments (EMP) provide the SmartVista software switch and third-party processing capabilities, respectively.



financial institutions nationally as well as to the global financial network.

APS launched a domestic card scheme (debit and prepaid card) called AfPay which is principally tied to the APS network, allowing card holders to utilize the network's integrated strengths. Ten thousand AfPay cards have been currently distributed. Apart from lower transaction costs, the AfPay card scheme has the potential to be used as a stored value card that could be utilized by the Government for salary/pension payments, social welfare (money for food and sustenance) and other important use-cases.

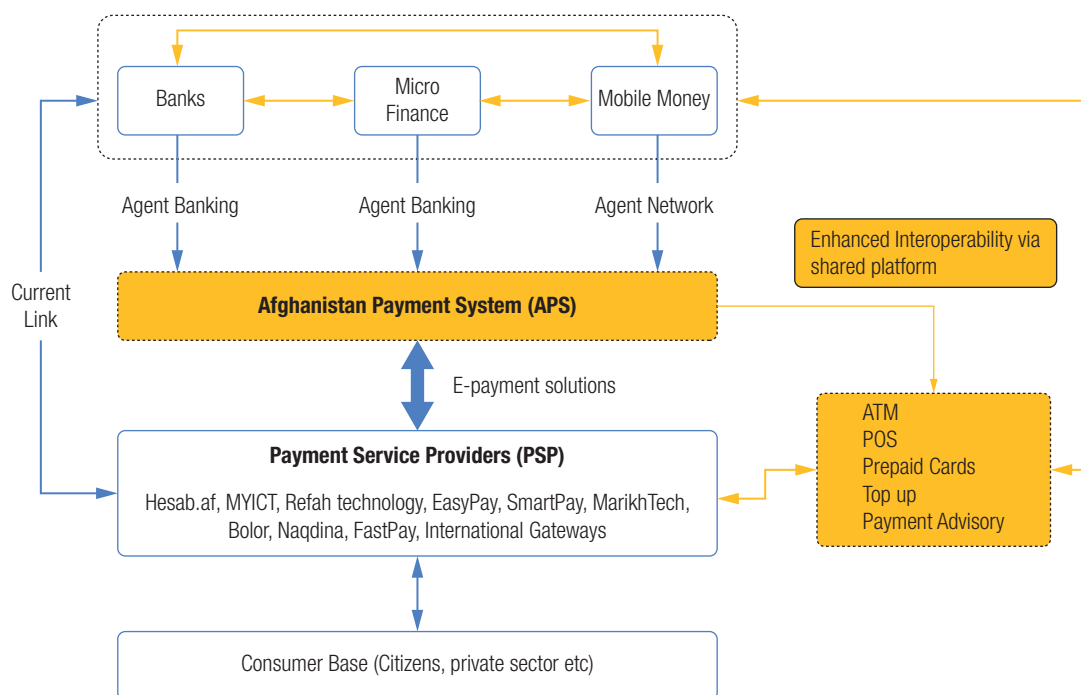
The APS mandate and functionalities constitute an ambitious scope. The key factor for meeting these ambitious goals will be to ensure that the timelines for scaling up operations are met, especially since there have been some challenges with the current deployment in terms of implementation delays. The cost/fairplay implications for individual PSPs in the proposed model must be analyzed. If future implementation matches planning, APS will play a central role in standardizing and promoting e-payments in the country.

Mobile payment solutions

There are currently three mobile money solutions in Afghanistan – mHawala (Etisalat), M-Paisa (Roshan) and MyMoney (AWCC). M-Paisa was the pioneer in the Afghan market, deployed by Vodaphone and Roshan in 2008. It was initially used with significant success for ensuring salary payments to the Afghan National Police Force²⁷, and still controls 85 per cent of the mobile money services share. It is still the market leader, with a presence in almost every Afghan province.

Based on the EMI and other regulations, mobile money providers are expected to develop their systems using technology and standards to permit eventual interconnection and operation of other mobile money systems in functionalities including mobile banking, bill payments, money transfer systems etc. This stipulation is good because it forces the service providers to develop Application Programming Interface (APIs) that can connect and communicate with other systems.

Figure 2: Envisaged APS Ecosystem



Source: UNCTAD adaptation from APS. Introduction to Afghanistan Payments System (APS), 2018

²⁷ An interpretation of Afghanistan's public financing law does not allow direct Government to Mobile Wallet transfers, but instead requires an intermediary, which in this case was M-Paisa.



In order to enter the electronic banking sector, including mobile money, the regulations stipulate that MNOs must create a separate entity with separate registration, management board, audit committees and other covering mechanisms. Each mobile banking solution provider must have a connection with a bank as stipulated by DAB, the premise being that having a bank relationship will provide confidence to consumers and therefore increase adoption.

The uptake of mobile money has been slower than expected.

The main drivers for mobile money are a) the ease and security of non-cash payments and b) the positive reputations of the telecommunication firms in the country, that have played a highly positive role in the economy and society. Having said this, the mobile money penetration in Afghanistan is relatively low. According to DAB's 2017 Annual Report, only 0.8 per cent of SIM owners are using mobile money services, preferring cash and physical banks.

The EMI regulations have established a limit on the maximum balance of mobile wallets at AFN 150,000 thereby making them unworkable for high salary employees.

Individually, the systems work well. However, the connectivity between wallets from different providers does not currently exist. Mobile money transfers between the three main mobile money solutions cannot be made, although the APS eventually hopes to add this function.

A 2014 study conducted by USAID/Altai Consulting points to some root causes of the low mobile-money penetration.

- Very few mobile money subscribers actually perform functional transactions; most services are essentially unused.
- Mobile money users are predominantly recipients of funds and prefer to withdraw money from banks even if non-bank agents are easier to reach. Most users were forced to subscribe by their employer to receive their salary and would prefer to be paid in cash.

- Fifty-six per cent of mobile money non-users state they would consider subscribing to mobile money, but they have a general lack of awareness of the service and of its benefits. Business owners are also often skeptical of mobile money.
- A lack of savings and of a need for financial services, low awareness, the perception that mobile money is too complicated, and to some un-Islamic, have been identified as barriers to market penetration. Respondents also suggest a critical mass of users is necessary for them to subscribe.
- Access to mobile money agents continues to be a major issue, as well as the reputation and liquidity of agents, in particular non-bank agents. Mobile money agents have reportedly little incentive to promote the service due to users' preference to withdraw all their money at once, which jeopardizes profitability of agents since withdrawal fees are capped.²⁸

Interoperability (MNOs providing mobile money services and banks) will be an important factor in spurring adoption, necessitating greater cooperation between MNOs. Given the high competition facing the voice sector and the fact that MNOs depend on mobile money services as a way of increasing client retention, MNOs may not be as willing to invest in cooperation that could dilute their client base.

Lack of awareness amongst the consumer base regarding mobile money is a significant challenge. Telecom firms have not yet found a good strategy for promoting the mobile money product outside of Kabul and provincial capitals.

Lack of liquidity within the agent network and use of exclusive agents is another challenge. Proposals have been floated to explore how the Hawala dealer network can be brought in to function as agents. Given that DAB regulations requires agents to be licensed, this could be an opportunity to bring more Hawala dealers into the formal financial system, or may prevent dealers from getting involved at all – it all depends on how much flexibility the Government can offer, and the level of risk that Hawala dealers will see towards their core banking business if they were to enter as agents.

²⁸ Altai Consulting/USAID, *ICT in Afghanistan: Economic Impact Assessment, 2014*



Through its network of 463 branches across the country, AfghanPost can play a potential role in this regard though facilitating money transfer, playing the role of cash merchant, and that of a master agent. As a Master Agent, the AfghanPost can provide interoperability between the three mobile money providers and potentially banks through any of its branches across the country.

With 2,500 full-time postal delivery staff across the country, AfghanPost can equally play an important role in financial education, especially of DFS and the advantages of mobile money, which should help improve the uptake of mobile money in the country.

The PSP segment is growing.

PSPs provide a middle layer between merchants and acquiring banks to provide additional value-added services that allow merchants to accept online payments but also benefit from other services such as online payment solution for debit and credit cards, e-mail payment solution, telephone and e-mail payment solutions etc. They operate the payment gateways and the payment processor services.

In Afghanistan, PSPs have a strong agent network of 60,000 in 23 major provinces of Afghanistan²⁹ and can serve as a valuable source of liquidity in terms of agents if they can collaborate even more with mobile banking firms and other players. PSPs include Hesab.af, MY ICT, Refah Technology, Easy Pay Co. Ltd, Smart Pay-Tech, Marikh Tech, Boloro, Naqdina, FastPay.³⁰ All are mentioned as potential future partners with APS.

Box 4: Hawala

Hawala, a two-hundred-year-old informal banking system, continues to grow and is widely accessed by people across the country. Hawala is an informal, honor-based network of money transfer providers who are well known and broadly trusted by Afghans. It is a money transfer service in its most rudimentary form and one that is entrenched in Afghan society. Hawala works by transferring money without actually moving money. Working in parallel with banks, it consists of a network of mostly regionally and at times internationally affiliated money lenders and exchange agents who remit money for a lower fee than banks, and without a paper trail. For most people, Hawala is a more efficient, accessible and convenient money transfer system in comparison to bank branches. The prevalence of Hawala could be attributed to a lack of an extensive banking branch network throughout the country; a lack of awareness about mobile accounts and their functions; and a largely inaccessible banking system, combined with high levels of trust in Hawala dealers.

Hawala is also better suited to local conditions, especially in rural areas, in that transfers are less costly and more convenient than using a bank branch, with generally no bureaucratic procedures or paperwork required, nor transaction approvals needed, as they would be in a bank. As of 2010, there were 152 Hawala dealers licensed by Afghanistan's Central Bank, however, the total number of Hawala dealers is estimated to be closer to 5,000.

Source: BTCA, *Building a Gateway to Digital Payments in Afghanistan: The World Food Programme's E-Voucher Initiative*, 2016

²⁹ APS, *Introduction to Afghanistan Payments System*, 2018

³⁰ *Ibid.*



5. LEGAL AND REGULATORY FRAMEWORK

As e-commerce matures and e-government initiatives gather pace, the need to adopt an e-transaction law is pressing. The existing draft of the e-transactions law based on UNCITRAL should be deliberated in parliament as a priority. There is also a need to strengthen the regulatory landscape related to cybercrime code. The recent cybercrime- based additions to the penal code and tenets of consumer protection related to electronic payments through the EMI regulations is a step in the right direction, as is the adoption of a national cyber-security strategy and the establishment of the Cyber Emergency Response Team (CERT). Enforcement capabilities for ensuring compliance with these regulations will be required.

Consumer protection provisions related to online transactions are also required and could form part of the Consumer Protection Act adopted in 2017. As the e-commerce sector matures, IP protection and data protection legislation will have increased importance.

A regulatory gap exists vis-à-vis the e-commerce ecosystem, presenting challenges for the sector to scale-up.

There is currently no adopted legislation that sets the legal basis of electronically formed contracts, although draft legislation exists. A draft Electronic Transactions and Electronic Signature Act was prepared based on the UNCITRAL Model Law on Electronic Commerce, the UNCITRAL Model Law on Electronic Signatures and the substantive provisions of the United Nations Convention on the Use of Electronic Communications in International Contracts. The draft Act was submitted to public consultation in 2015 and is currently awaiting adoption by the Parliament. Its enactment is required for ensuring that electronic transactions and signatures have legal recognition.

A recent cybercrime law along with institutional support for enforcing this law is an important step towards cybersecurity.

The country's new penal code was updated in June 2017 with 11 different codes and 63 provisions on Internet-related crime. These additions set the legal basis for regulating online activities and criminalizes activities such as hacking, exposing government secrets, cyberterrorism and spreading ethnic hatred.

A draft cybercrime law titled "The Cyber Crime Code", worked up by MCIT, has not yet been fully enacted. This law is consistent with the Council of Europe's "Budapest Convention", also containing provisions on enforcement procedures (such as subpoenas) and international cooperation.

To support the enforcement of the cybercrime code, MCIT is currently working on setting up Cyber Emergency Response Team (CERT, which will coordinate responses with MCIT, National Directorate of Security, and other national/international agencies. The CERT is being established with support from the US, among other partners and will be an important instrument for ensuring enforcement of the cybercrime code.

Consumer protection is an emerging area of reform.

The Consumer Protection Act was adopted in early 2017, and a commission is being established to oversee the implementation of the Act. The overall mandate for consumer protection lies with Competition Promotion and Consumer Protection Directorate (CPCPD) falling within MOIC. The Act is primarily aimed at protecting consumers from counterfeit goods and preventing importers from bringing low

Box 5: Cybersecurity strategy (MCIT)

The Cybersecurity Strategy was adopted in 2014 in response to an identified need in improving cybersecurity at the policy, institutional and enterprise level. It is primarily MCIT's strategy for addressing the national cybersecurity challenges and has not yet been adopted as a national strategy. The business case is driven by estimated losses of US\$ 28 million between 2011 and 2015 at the national level, with the vast majority of fraud involving internal staff and a minor percentage attributable to ID theft, email forging among other activities. At the enterprise (individual companies) and institutional (banks, ministries etc.) level, security policies are lax and organizational positions for IT security are not formalized. With this mind, the National cybersecurity policy has been developed with five pillars: legal measures, technical and procedural measures, organizational structure, capacity-building, and international cooperation.

Source: UNCTAD based on <http://unipath-magazine.com/cyber-security-in-afghanistan/>



quality goods into the country. No provisions exist for consumer protection vis-a-vis transactions conducted over the digital medium, and the Consumer Protection Act will need to be amended to reflect provisions for online transactions.

The regulation on the licensing, regulating and supervising of EMIs does contain elements that ensure consumer protection, but these are limited in scope because they deal with online payments and not necessarily online contracts. The regulation notes:

1. In its Dispute Resolution Policy, the EMI entity must include an acceptable redress mechanism to address any instances where transactions may be misdirected or considered lost in the system.
2. The EMI is responsible for ensuring that customers can verify that an enterprise representing itself as an authorized agent (mobile money or other agents representing an EMI) is actually an authorized agent. These measures should include a combination of some or all of the following mechanisms, at the discretion of the EMI: a publicly available database of agents; signage that cannot be copied; unique agent number and photo at every location along with customer assistance telephone numbers, and a general consumer awareness program.

No data protection act is currently in place for online transactions. However, the Cyber Crime Code contains provisions for ensuring that privacy in the online domain is ensured, such as:

- Crimes of disrupting a computer network, using illegal means to access a computer system, programs, and computerized information, changing or destroying a computer system or the password and security code of the system, or installing viruses in the system;
- Disclosing the password or security code of an information system (Draft Cyber Crime Code, art. 859);
- Preventing others from having access to an information system (id. art. 860);
- Creating, preparing, and using an information system to commit crimes (id. art. 861);

- Electronic counterfeiting (id. art. 862);
- Electronic fraud (id. art. 863);
- Theft of another person's Internet service;
- Cyberterrorism (id. art. 866), cyberespionage and cyberwarfare (id. art. 868), and cybergambling (id. art. 875); and
- Crimes against public morality³¹.

Steps have been taken to ensure domain name protection.

The Information Systems Security Directorate (part of MCIT) asks licensees to register and use domain names after due diligence is conducted including the guarantee that there are no duplications. Apart from the top level .af domain, other domains available include: .gov.af; .com.af; .net.af; .edu.af; .org.af; .tv.af; and .media.af.

³¹ <http://www.loc.gov/law/foreign-news/article/afghanistan-cyber-crime-code-signed-into-law/>



6. E-COMMERCE SKILLS DEVELOPMENT

The skills development infrastructure for e-commerce in Afghanistan is important for private sector firms ready to meet market demand (both domestic and international), for improving the quality of overall ICT ecosystem, for addressing demographic changes that favors increasingly technology literate youth, and not the least, for government-driven initiatives to increase the use of ICT in the country. IT skills have grown in lockstep with the improvements in ICT (especially telecommunications) and other factors noted above. On balance, skills providers are increasingly cognizant about aligning themselves with the evolving needs of (current and future) digital businesses. Skills mismatch is a forecasted challenge that will emerge as e-commerce picks up speed. Skills-gap analysis, as well as the establishment of a feed-back loop between the government-skills-providers and the private sector, will gain relevance.

Key skills will be needed for apps-development, digital business incubation, and website development, where demand will possibly arise. For IT skills, technical training institutes will most probably be the driving forces rather than universities, due to their ability to adapt more rapidly to market needs. Other areas of focus are improving awareness among consumers about the benefits of e-commerce, and sensitization in the broader private sector about the benefits of going digital. A possible avenue to help enable the skills shift would be returning diaspora who have experience and skills in running digital businesses.

The role of development partners and the Government will be essential for ensuring that ICT projects involving skills-development components, and sector development projects involving market-side components have a focus on e-commerce.

6.1 Skills gap assessment

E-commerce IT skills must be developed for the sector to grow.

A skills gap does exist in e-commerce, but the impact is limited because the demand for such skills are also currently low, albeit growing. Several private training centers provide ICT training in computer networking, software programming and database but there is no specific training for e-commerce in their routine training schedules. Along with several government universities, almost all of the private universities run bachelor programs for computer science and IT, but their curriculum is focused on general IT and computer engineering subjects. No courses exist specifically for e-commerce.

Since 2015, Kabul Polytechnic University has been offering two classes in mobile application programming.

Coordination between policymakers, skills providers and the private sector is weak across the ICT skills development spectrum, leading to a skills mismatch. This has implications for the emerging e-commerce field given that specific ICT related skills (such as website development, API connectivity, networking)

are essential to an e-commerce business. Weak synchronization between policy and academia and the private sector can stymie growth of e-commerce firms due to lack of specialized technical professionals.

6.2 Availability of tertiary education/curriculum, professional training

ICT education has developed significantly in the last decade.

Most universities in Kabul offer bachelor's level programs in ICT; annually graduating students with such degrees number in the thousands. There are currently no master's level programs in the country.

Technical training institutes offer specialized certificate and diploma level programs, with a wide range of courses. IT training centers (short-term training targeting existing professionals and focusing on IT fundamentals) and IT Institutes (targeting high-school graduates and offering diplomas spanning two-five years of learning) comprise the IT training ecosystem. These skills-providers require the certification of the Ministry of Higher Education (MoHE) in order to offer diplomas. Most of these training providers offer classes in Computer Science and English since IT literacy requires competency in both.



These institutes experienced significant growth in the post-Taliban era parallel to improvements in ICT infrastructure and a heavy demand from a ready market of development partners and their projects. The Government also played an early role in spurring the demand for IT professionals. The IT skills supplier base is comprised of 250 IT training centers and institutes: approximately 100 in Kabul, 100 in Kandahar, Mazar-e-Sharif, Herat and Jalalabad, and 50 in the rest of the country.³² Overall thousands of IT students graduate from Afghan colleges/universities and the training centers/institutes mentioned above.

The National Technical and Vocational Education and Training (TVET) strategy has emphasized ICT along two dimensions: ensuring TVET delivery and incorporating ICT itself as a TVET topic. E-learning and blended learning methodologies have been encouraged and pursued, especially in the case of non-public TVET institutions.

There are select e-commerce courses within business management programs at Kardan University, the first privately owned university in the country.

The World Bank funded Afghanistan ICT sector development project included a thorough needs assessment of ICT skills requirements in the country. Based on the assessment, a curriculum titled “Advanced-Level IT Training for IT Professionals” was developed, which was delivered in joint supervision with MCIT. Courses include training for system administration, Microsoft technologies specialists, web design and development specialists, networking and cybersecurity specialists, database administrator and software development specialists³³.

Returning Diaspora could also be a source of digital business talent and entrepreneurship.

A significant number of Afghan IT graduates who finished their higher studies outside of Afghanistan, mainly in India and European countries have returned to Afghanistan. These individuals could be the future of ICT and e-commerce sector if the right conditions for entrepreneurship and absorption into the labor force are developed. Anecdotal evidence suggests that a number of young professionals who have returned to Afghanistan have become involved in the sector.

This represents an opportunity to share knowledge, soft-skills, as well as other transferrable skills acquired abroad with their Afghan colleagues.

6.3 Tech start-ups scene

Previous efforts to develop ICT clusters have not materialized due to security concerns.

MCIT and the World Bank have explored the establishment of an ICT village, involving ICT firms and other actors in the ICT ecosystem that would possibly have also included e-commerce ventures. The idea was to develop a cluster of firms and interdependent actors that would collaborate with each other and benefit from clustering. Due to security considerations, this project was shelved.

Incubation and sector collaboration/advocacy efforts are in infancy.

MCIT’s ICT Institute hosts an ICT incubator that was established with World Bank support. The incubator offers office space and facilities, website design/development, m-apps development, system integration, management information installation, and enterprise resource planning. During the phase when the World Bank was co-managing the project, 30 companies graduated from the incubator program (a six-month program with an intake of 14 companies each time), of which 21 companies are still active. The incubator is still operational after the World Bank completed the project in 2017.

The Capacity Building for Results (CBR) Program (started in 2012) helps to develop human capital within the public sector to support hiring and retaining managers in technical areas, including e-government, and promulgating ICT capacities within the Government.

The e-government directorate at MCIT has played an integral role in improving institutional connectivity through ICT. In addition to e-governance initiatives, recent achievements have included connecting 20 schools and universities in Jalalabad, Kunar and Bamiyan provinces to a fibre-optics network, with an ambitious plan to scale up.

³² Altai Consulting/USAID, *ICT in Afghanistan: Economic Impact Assessment, 2014*

³³ Course list from <http://documents.worldbank.org/curated/en/334521534181268872/pdf/P121755-FINAL-ICR-10-Aug-2018-08102018.pdf> Page 16



In recent years, certain networking platforms for IT and digital businesses have emerged. These platforms and programs can function as important seeding grounds for discussions and private sector activity focused on digital businesses.

- **Internet Governance Forum (IGF) Afghanistan:** IGF Afghanistan is a public-private sector discussion forum aimed at facilitating a two-way conversation for companies and individuals to have their voice heard by regulators.
- **The Founder Institute - Kabul:** Launched in 2014, the Founder Institute provides a series of entrepreneurship-based events for technology companies, including an incubation component through which four promising new technology companies have graduated.
- **National Information Technology Professional Association of Afghanistan (NITPAA):** NITPAA focuses on enabling networking and collaboration between the public and private sectors; academic development through exchange of knowledge, skills and expertise among IT professionals, students, general public, and businesses; IT policy development through discussions, exchanging and generating reports; career development and equal employment opportunities; provide and gather expert opinion/expertise from those working in global and multinational enterprises in various industries.



7. ACCESS TO FINANCING

Weak banking network outside of Kabul and certain provincial capitals impedes access to financing in the hinterland. Overall, financial intermediation and consumer confidence in the formal banking sector is constrained due to a variety of reasons. On the demand side, enterprises cannot offer strong proof of creditworthiness to loan officers and default rates are high. Consequently, liquidity in the banking system is high given the relatively low percentage of loans applied for and approved. Loan products are not geared towards the requirements of emerging sectors such as e-commerce, especially so in the case of women entrepreneurs. Islamic finance is an emerging area of finance with all main banks offering Islamic Finance windows, and one bank (AIB) applying Islamic finance principles in all its operations. Microfinance institutions (MFIs) play an important role in the provision of MSME financing, however products may not be fully suitable for financing at the level required by e-commerce start-ups/firms.

7.1 Depth of the banking network

The banking network is relatively strong in the capital and certain provincial capitals, but weak outside Kabul.

The Afghanistan banking sector is comprised of 15 commercial banks with more than 400 branches across the country. In addition to the formal banking channel, the Afghanistan financial system includes 955 Money Service Providers and 1,804 Foreign Exchange Dealers licensed by the “Financial Supervision Department of Da Afghanistan Bank”, which functions as the supervisory body for the banking sector.

Accurate figures on geographical distribution of the banking network are not available, but based on the latest Annual Report of DAB, 74 per cent of total loans in the country are based in Kabul (province), followed by 8.7 per cent in Herat and 4.6 per cent in Balkh province, indicating the standing of these provinces as the locus of banking/loan activity.

Sectoral distribution of loans involved the following sectors includes fuel and lubricants (11.8 per cent), construction (8.2 per cent), foods (7.8 per cent), retail trade (7.3 per cent), telecommunications (5.96 per cent), overland transportation (4.86 per cent), wholesale trade (4.3 per cent). Services accounted for 3.3 per cent of total loans.

7.2 Financing by commercial banks and MFIs

Informal banking channels are the most used, only six per cent of the population of 30 million has dealings with the formal banking sector.

The commercial banking sector faces immense competition from informal loan mechanisms such as Hawala. This can be attributed to cultural/religious reasons as well as the lack of compelling value propositions offered by banks. For MSMEs, it is easier to apply and sign up for loans through the informal banking channel than with commercial banks. Community and family-based access to capital remains the preferred choice. While these systems have supported the Afghan private sector for decades, they are increasingly less viable, especially for e-commerce operations that may require relatively high working capital injections to scale up. During the Taliban rule, banks were not allowed to pay or charge interest, thus pushing people towards the informal sector.

Recent cases of bank mismanagement have significantly curtailed the confidence of companies and individuals in banks.

The cost of finance is another key factor. Payment terms are challenging - average interest rates for loans range from 18-25 per cent, and payback periods are inordinately short. Banks are also perceived to be slow in releasing collateral upon loan repayment. The collateral requirements are also high and can scale to more than 100 per cent of the loan requirement in some cases. Specifically, in the case of e-commerce firms that are just starting up, applying for collateralized loans that consider only physical property as collateral (as opposed to the strength of business plans, IP, movable assets etc.) is a non-starter. Letters of credit, which typically function as an avenue for taking the collateral challenge, are also not readily accepted by banks.



Table 8: Banking network in Afghanistan

State Owned Banks (169 branches)	Private Banks (284)	Branches of Foreign Banks (8)
Bank-e-Millie Afghan (BMA) (36)	Afghan United Bank (15)	Bank Alfalah Ltd (2)
New Kabul Bank (111)	Afghanistan Commercial Bank (6)	Habib Bank Limited (2)
Pashtany Bank (22)	Afghanistan International Bank (32)	National Bank of Pakistan (4)
	Arian Bank (2)	
	Azizi Bank (75)	
	Islamic Bank of Afghanistan (previously Bakhtar Bank) (62)	
	Ghazanfar Bank (9)	
	Maiwand Bank (38)	
	The First Micro Finance Bank (45)	

Source: DAB 2017, ITC NES 2017

Table 9: Banking facilities

Facilities	Number (1034)
Branches with full/limited services	202/214 (33 provinces)
ATMs	209 (8 provinces)
Other facilities, including those authorized to pay cash such as salaries or authorized to receive cash for deposits for hotels etc.	89
Sale sites (superstores)	320

Source: DAB 2017

Microfinance institutions (MFIs) play an important role in the provision of MSME financing.

There are nine MFIs active in Afghanistan, of which seven are financially supported by the Microfinance Investment Support Facility for Afghanistan (MISFA)³⁴ as MISFA partner institutions.

Three types of loans are provided – individual loans (AFN 25,000-100,000), group loans (AFN 5,000-25,000), SME Loan (AFN 100,000-2.5 million).³⁵ As of 31 August 2018, MISFA had a gross loan portfolio of AFN 9 billion, of which 34 per cent are women borrowers – reflecting the importance of this source for women entrepreneurs. Fourteen provinces are covered through the overall MFI base, with US\$ 119.5 million outstanding loans disbursed to 129,744 clients.

In addition to the three segments noted above, loans are tailor-made based on specific client needs,

including agricultural, housing, and Sharia-compliant loan products. Ongoing efforts to introduce other types of Islamic loan products, as well as products tailored to women and youth, reflect the overall innovativeness (at least relative to the banking sector) of the Afghan MFI sector.

Significant enterprise level issues impede loan approvals.

The access to finance challenge in Afghanistan also extends to the supply side. For banks, finding credible borrowers with bankable proposals is challenging. SMEs struggle to meet bank requirements due to the poor quality of business plans that are submitted. Business plans, in terms of forecasted revenue/growth, are often unrealistic, and loan seekers often lack administrative records by which banks can undertake due diligence. A significant problem of loan defaults further forces banks to apply stringent

³⁴ Established in 2013 and originally funded via the World Bank's Afghanistan Reconstruction Trust Fund. MISFA is now a limited liability company owned by MoF and governed by an independent board of directors. MISFA is the main source of financing for the MFI sector.

³⁵ MISFA Annual Report 2016



measures for loan approvals. High degree of default rates is also a factor constraining bank confidence. Approximately 50 per cent of total loans are either classified as: non-performing (12.67 per cent of total gross loans; outstanding and borrowed amount not received for 91-360 days); adversely classified (26.91 per cent of total gross loans; outstanding and borrowed amount not received for 31-90 days); loans classified on watch list for review (9.45 per cent of total gross loans; outstanding and borrowed amount not received for 1-30 days); and loans classified as a loss (1.35 per cent of total gross loans; outstanding and borrowed amount not received for 361 or more days).³⁶

Relative lack of innovation in the Afghan loan products sector constrains sector development.

Even in the case of the agricultural sectors that function as the mainstay of the economy, the banking sector has been slow to innovate on developing tailored loan products that provide an avenue for sectoral growth and involve sensitized and informed loan officers qualified to understand the particular challenges of the sectors. In the case of emerging sectors such as IT and e-commerce, the Afghan banking sector lags significantly behind peers in other countries. While big companies in the country have the means to approach banks and quality for loans, smaller-sized companies qualifying as MSMEs either have the choice of approaching informal banking channel such as Hawala or borrow from family/community – neither of which are geared for long-term sustainable growth. Loan solutions for the MSME segment with flexible payment term options need to be developed.

Women entrepreneurs face significant challenges in accessing loans.

Uncertainty about property rights as well as cultural barriers to owning and operating businesses (especially outside the capital) play a large part in inhibiting applications from female entrepreneurs, as well as their ability to demonstrate creditworthiness with lenders.

Islamic finance is an emerging area of finance in Afghanistan.

Until recently, Islamic banking in Afghanistan was offered by banks such as Afghan United, Ghazanfar, and Afghanistan International Bank, through Islamic Finance Windows. The Islamic Bank of Afghanistan (IBA) is the first bank in Afghanistan to apply principles of Islamic finance to all of its operations. Current products include a Mudaraba savings account, a form of investment management partnership, as well as financing products based on ijara, an installment-based leasing contract. Future plans include wealth management products and the launch new of digital banking services.

7.3 Financing by business incubators, business accelerators and venture capitalists

The business incubation space for digital businesses is nascent but is growing for the IT community. Existing incubators (mentioned in the Skills Development chapter) can be supported through development partner involvement and can include/extend a financing component to the overall support. Venture capitalist activity is currently very limited overall in Afghanistan, owing to perceptions of high-risk.

7.4 Financing by development partners

A number of projects by development partners such as USAID, DFID and others focus on access to finance in priority sectors and functions identified by the Government. Financing instruments include the Agricultural Development Fund and Harakat, among others. However, development partner financing options for e-commerce have not yet emerged, due to the early maturity stage of the sector. Numerous development projects currently ongoing and planned are expected to accommodate digital business/e-commerce as a component. Access to financing would be a part of this.

³⁶ DAB Annual Report, December 2016 situation



CONCLUSION

Afghanistan wishes to expand its position as an economic link between Europe, Central Asia, the Middle East, South Asia and East Asia, in addition to providing socioeconomic gains to its citizens through trade led growth. This assessment finds that development of Afghanistan's e-commerce ecosystem will be an essential ingredient in this eventual success story.

Development of the e-commerce ecosystem will be a challenge for policymakers due to the multitude of linkages between the various components

(telecommunication providers, ISPs, website developers, banks and payment system providers, regulators and various line ministries, among others). More coordination among relevant Ministries and institutions, as well as increased public and private dialogue, will be key to discussing and selecting priority policy actions as described in this assessment. This assessment can serve as a toolbox for policymakers and development partners active in the country, to facilitate meaningful integration of the action matrix activities within the national budget as well as development projects budgets.



THE WAY FORWARD: ACTION MATRIX

E-COMMERCE READINESS ASSESSMENT AND STRATEGY FORMULATION			
Indicative action	Expected results	Priority Level	Potential support by
<p>Develop a national ICT policy that builds on the far-reaching vision of the ICT Law of 2003 and develops a long-term vision of the sector keeping in mind the current environment.</p> <p>The ICT policy could include an e-commerce strategy focusing on developing a medium-term strategic roadmap for the sector. The strategy could be undertaken as part of or in parallel with the ICT policy development.</p>	<p>An ICT policy that informs policymakers on the long-term vision, and procedures, guidelines, rules and regulations that should dictate the growth trajectory of the sector.</p> <p>A detailed five-year strategic plan for e-commerce in Afghanistan that lays out critical activities, priorities, potential implementation partners, and timeframes in alignment with the broader development agenda of the country.</p>	High	MCIT, MOIC, MOF, DAB, ATRA, telecom operators, Commercial Banks, UNCTAD, World Bank
<p>Develop and adopt an e-government strategy that absorbs the ongoing work in digitization of government services and workflows and proposes a medium-long-term roadmap to cover existing gaps. Continue progress in existing e-government initiatives.</p>	<p>An adopted e-government strategy that provides a coherent roadmap for developing efficiency in intra-government linkages as well as provides convenient online access to various public sector services.</p>	High	MCIT (E-government Department), DAB, ATRA, APS, MOIC, World Bank, CLDP
<p>IMCWT could establish a dedicated working group on e-commerce building upon its current mandate.</p>	<p>Informed policymaking related to e-commerce with close coordination between the public and private sectors.</p>	High	NTFC, MOIC, ITC, UNCTAD
<p>Introduce e-commerce components into the NPP on Private Sector Development and NPP on Women Economic Empowerment National Priority Plan. Focus on entrepreneurship development related to digital businesses owned by women and youth especially is recommended.</p>	<p>E-commerce and digital business entrepreneurship are institutionally integrated in the national development agenda through the multi-year NPPs. The focus on youth and women will result in significant gains for these segments to participate in economic activities.</p>	Medium	MoF, MCIT, MOIC, MOWA, UNCTAD
<p>Ensure that any sector development plan/strategy/project involving market-side aspects includes e-commerce components to the extent feasible, especially for sectors such as saffron, carpets and others that have high trade potential and involve a significant MSME presence.</p>	<p>Integrated focus on e-commerce within the national development agenda, and improved success rate of sector development projects which typically struggle to facilitate sustainable market penetration for Afghan products.</p>	Medium	MOIC, MOF, MCIT, ITC, UNIDO, World Bank, Donors, Development Partners
<p>Improve statistics capability of national offices in measurement of e-commerce-based trade.</p>	<p>Enhanced capacity to measure trade in services and e-commerce activity for both domestic and international markets, leading to better informed policymaking.</p>	Low	MCIT, CSO, MOIC
<p>Foster the growth of an e-commerce association that will serve as a platform for discussion, training, and advocacy for the development of the sector.</p>	<p>Consensus building and advocacy on important common issues for e-commerce leading to informed policymaking.</p>	Low	Individual e-commerce firms



ICT INFRASTRUCTURE AND SERVICES			
Indicative action	Expected results	Priority Level	Potential support by
In consultation with telecommunications operators, e-commerce firms (and broader private sector), and other actors in the ICT ecosystem, develop a holistic and practical strategy for improving awareness and adoption of 3G, as well as fixed-broadband among consumers across the country. Aspects of competition and affordability should be included as well.	Increased adoption of 3G/fixed line broadband along with consumer awareness of the benefits of conducting online transactions for e-commerce and other uses.	High	ATRA, MNOs, Afghan Telecom, e-commerce firms, private sector associations, World Bank
Ensure regulatory supervision as the Internet subsector transitions from a high profit, low volume model driven by B2B transactions to a low profit, high volume model driven by B2C transactions.	Emergence of a competitive Internet subsector that promotes digital inclusion but also incentivizes supplier firms through a competitive and fair-play operating environment.	High	ATRA
Continue efforts to explore privatization and restructuring of Afghan Telecom to resolve the key challenges identified in the assessment pertaining to the lack of competition.	Structured privatization that will help to make the telecommunications space fully competitive and ultimately help both service providers and consumers.	High	ATRA
Strengthen ATRA's capabilities to fulfill its mandate of functioning as the Telecommunications regulator, especially with regard to ATRA's technical and human capital capabilities to enforce regulations. Strengthen the independent role of ATRA as an independent body regulating the telecom sector, and actively promote awareness among investors and consumers of its separation from MCIT and Afghan Telecom.	ATRA's visible and independent role in maintaining an impartial position as administrator of the country's telecommunications sector is concretized.	Medium	Cabinet/HEC, MCIT
Consider utilization of TDF as a fund for insuring the investments made by telecom operators in security-challenged areas of the country, and also to seed projects for financial inclusion access through which awareness and adoption of mobile-money and other electronic money value-added services can be improved.	MNO investments safeguarded and financial/digital inclusion rises in the country, especially in non-capital areas where adoption of mobile-money and electronic money services has proved challenging.	Medium	ATRA, TDF, MNOs, EMIs
Boost the technical capacities of the National Internet Exchange (NIXA) in terms of top-level domain name protection/management, as well as facilitate capacity for scaling up flow of local traffic.	Long-term growth in local context as well as reduced latency for local Internet traffic.	Medium	MCIT, ATRA



TRADE LOGISTICS AND TRADE FACILITATION			
Indicative action	Expected results	Priority Level	Potential support by:
Explore mechanisms for facilitating greater SME access to the use of recently initiated and expanding air-cargo corridors to target markets. In parallel, increase awareness among the SME base (especially in high potential export sectors such as carpets, saffron etc., which also have e-commerce potential) on the administrative paperwork, clearances, fees, shipping times involved, and make available this information online.	Enhanced visibility and access to the air cargo corridors for the SME base—including e-commerce firms—through which they can increase trade, reduce dependency on land border crossings. Increased market access for priority sectors which also have e-commerce potential.	High	ACCI, MOIC
Implement the reform recommendations of the Trade Facilitation and Paperless Trade Implementation Survey which places emphasis on implementing e-single window, e-air cargo manifests, e-preferential certificate of origin, e-payment of duties, and e-application for customs refunds, among other reforms.	Improved performance, movement towards paperless trade and increased efficiency (plus reduced times/costs) for trade facilitation operations.	High	UNESCAP, UNCTAD
Implement the high priority items noted in the recently completed National Export strategy for the cross-cutting Trade Facilitation function, the National Trade Policy, and the National Priority Program for Private sector development. Similar focus should be provided for any other recent strategies endorsed by the Government focusing on trade logistics and trade facilitation.	Improved trade logistics and trade facilitation functional areas resulting in reduced procedural and cost burden for exporters and importers, and ultimately e-commerce firms.	High	MOIC, MOF/ACD, ITC, UNCTAD, UNESCAP
<p>Continue progress on the implementation of the Operational Readiness for E-commerce (ORE) roadmap action plan with assistance from the UPU.</p> <p>Consider the following enhancements to the Afghan Postal Network:</p> <p>Maintain a postal addressing file with all provinces, all localities, sub-localities (districts) and all villages.</p> <p>Incorporate data down to street level or down to house/building (list of house numbers in street, exact house numbers or ranges of numbers). It could be done starting with cities.</p> <p>All address data or information should be in Dari/Pashto and in Latin script (English).</p>	The postal network system aligned to e-commerce requirements. Enhanced postal network infrastructure in the country and in particular, improved postal addressing and findability of addresses.	High	MCIT/Afghan Post, UPU
Develop guidance notes/instructions to assist e-commerce firms navigate the administrative procedures for shipping products internationally. Information must be regularly updated and accessible online.	Improved access to information in the form of step-by-step administrative procedures for e-commerce firms that helps them improve order facilitation and on-time delivery rates.	Medium	MOF/ACD, MOIC



TRADE LOGISTICS AND TRADE FACILITATION			
Indicative action	Expected results	Priority Level	Potential support by:
Actively participate in the new UN Framework Agreement on Facilitation of Cross-border Paperless Trade in Asia and the Pacific, which serves as the digital complement to the WTO agreement on trade facilitation leading the way to process improvement gains and better regional integration.	Increased interoperability with international and regional trade facilitation systems, ultimately benefiting traders.	Medium	UNESCAP
Conduct a feasibility study to assess the challenges and costs associated with intra- and inter-provincial transportation challenges across Afghanistan. Study to also focus on domestic market perspective of key priority sectors that have high e-commerce absorptive potential.	Enhanced visibility of the challenges that must be taken into account for e-commerce scalability in the future.	Medium	MOIC, IRU, World Bank

PAYMENT SOLUTIONS			
Indicative action	Expected results	Priority Level	Potential support by:
Provide technical support and advocate for stakeholders within the payments ecosystem to link with APS (national switch). Ensure that timelines for scaling up operations are met and the ambitious goals for 2020 are met.	Increased interoperability between EMIs' standardized infrastructure within the payment ecosystem, leading to increased convenience and confidence of consumers to use electronic money. Interconnected national financial institutions as well as to the global financial network.	High	APS, DAB, ATRA, Banks, MNOs, PSPs, World Bank
Raise awareness of the mechanics and the benefits of mobile money for a wide stakeholder base across the country through advocacy campaigns jointly implemented by civil society, private sector and the mobile money service providers. In doing so, it is key to enable interoperability among MNOs; increase consumer awareness and trust; and develop the ecosystem with further value-added services and incentivized "active" usage.	Improved awareness and confidence in mobile money solutions among citizens and private sector in the country, ultimately leading to increased uptake in mobile money.	High	MCIT, DAB, Mobile money operators/ MNOs, private sector associations
Ensure that Afghanistan's progress in implementing AML/CFT reforms such as strengthened controls and implementing the cross-border regulations at official land border crossing points continue at a desired pace. Also, ensure that DAB's regulations for EMIs to develop and manage an AML/CFT framework are enforced.	Strengthened AML/CFT framework, which will ultimately lead to enhanced confidence in the Afghan business environment, strengthened correspondent banking relationships.	High	DAB, FINTRACA, World Bank, IMF
Ensure that EMI regulations on selection, training and monitoring of money agents (whether related to mobile money, PSPs etc.) are fully implemented by operating companies. Develop and conduct standardized training for money agents across the country.	Improved service delivery of money agents who are dealing with the various services/ functionalities related to electronic money are well-informed, trained and can cater to the needs of consumers in a safe and transparent way.	Medium	DAB, EMIs



PAYMENT SOLUTIONS			
Indicative action	Expected results	Priority Level	Potential support by:
Explore the development of a non-exclusive money-agent network (sharing of money agents between different EMIs) as a means to standardize quality of agents, and improve liquidity, and financial inclusion in the hinterland.	Enhanced liquidity in the mobile money network, stemming from resulting interoperability; greater geographical coverage leading to improved financial inclusion.	Medium	DAB, EMIs
Conduct a risk analysis study to assess inclusion of the Hawala network as licensed mobile agents. Assess whether the mandatory DAB requirement of licensed money agents will discourage or encourage Hawala agent network.	Contingent on Hawala agents joining the mobile agent network: enhanced liquidity in the mobile money network, greater geographical coverage leading to improved financial inclusion.	Low	DAB
Study the implications of EMI regulations relating to a cap on maximum balance of mobile wallets at AFN 150,000 (US\$ 2,586), which renders mobile money solutions unfeasible for high salary workers. Explore options to make these requirements flexible.	Increased uptake of mobile money by professionals regardless of income levels, thereby leading to increased profitability for providers of Mobile Money services, and at the same time while fulfilling the goal of security and transparency.	Low	DAB

LEGAL AND REGULATORY FRAMEWORK			
Indicative action	Expected results	Priority Level	Potential support by:
Expedite the review process of the draft Electronic Transactions and Electronic Signature Act based on UNCITRAL texts, which is currently pending approval before Parliament.	Adopted legislation ensuring that electronically formed contracts can exist and have a legal basis, and also ensuring the ability of courts to adjudicate in case of disputes between parties to the contract.	High	MCIT, DAB, MOIC, UNCITRAL
Ensure enforcement of DAB-issued regulation (licensing, regulating and supervising of EMIs) in order to safeguard the right of consumers from online transactions (payments). Additionally, amend consumer protection regulation delineating the rights of consumers in the case of online transactions.	Improved consumer protection in the form of existing regulatory coverage and enforcement of transactions occurring online, leading to increased confidence in e-commerce among consumers in the long term.	High	DAB, MOIC, UNCTAD
Ensure provision of technical and financial support to Cyber Emergency Response Team (CERT) to enhance its long-term effectiveness as a monitoring and enforcement body in the context of overall implementation of the recently passed cybercrime code.	Enhanced capability of CERT to effectively coordinate responses with MCIT, National Directorate of Security, and other national/international agencies on cybersecurity and cybercrime issues.	Medium	MCIT, ITU, USAID, World Bank
Consider the adoption of a data protection act that can safeguard data transacted online, and in the interim implement the data protection provisions contained in the cybercrime law that can safeguard data transacted online.	Enhanced data protection for online transactions leading to general increase in overall confidence related to online transactions conducted in the country.	Low	MCIT, MOIC



E-COMMERCE SKILLS DEVELOPMENT			
Indicative action	Expected results	Priority Level	Potential support by:
Undertake a national skills audit to ascertain existing and needed skills (skills gap analysis) related to digital businesses through involvement of the private sector (especially in sectors that may be early e-commerce adopters), public sector and skills providers. Analysis will result in recommendations for upgrading the tertiary education curricula related to digital business skills development.	Overall consensus on the current situation related to skills availability for digital businesses leading to the upgrading of ICT course offerings in universities and training institutes.	High	MoHE, universities, technical training institutes
Support technical institutes in developing course offerings for digital businesses skills (ICT as well as management/operational skills). Technical institutes to be the focus in order to benefit from their agility and adaptability in catering to private sector needs.	A dynamic and flexible certificate provider base that is reactive to the needs of the private sector and evolving market environment.	High	Technical training institutes, ITC, private sector partners active in e-commerce
Develop digital business incubation programs in support of women entrepreneurs, tailored to their specific requirements.	Enhanced incubation and mentoring support for women entrepreneurs interested/involved in developing e-commerce businesses.	Medium	MCIT, AWCCI, WB
Develop e-commerce specific programs at the bachelor level or as initial steps, integrate e-commerce components within existing business management and ICT courses.	Integration of e-commerce in terms of technical IT aspects as well as establishing and operating digital businesses.	Medium	MoHE
Foster development of website/m-apps development and local content in national languages, through a targeted program involving SMEs, website design firms and content developers.	Increased readership/following for websites and apps by consumers, leading to an increased interest in e-commerce solutions.	Medium	MoHE, MCIT, business incubators
Improve coordination between policymakers, skills providers and the private sector through regular discussions. A dedicated platform or an existing platform with an extended mandate could be utilized to discuss e-commerce issues.	Strengthened feedback loop from the private sector to inform skills development providers as well as policymakers leading to reduced skills-mismatch related to e-commerce.	Medium	MoHE
When security conditions allow, consider reviving the ICT village project (or a similar initiative aimed at developing a digital businesses cluster).	Cluster development leading to increased collaboration among digital businesses and supporting actors, enhance entrepreneurship in e-commerce especially for start-ups.	Low	MCIT, WB
Support the ICT incubator hosted within MCTI's ICT institute and explore options for expanding the scope to e-commerce businesses.	Enhanced business incubation for digital businesses.	Low	MCIT, MoHE, WB



ACCESS TO FINANCING			
Indicative action	Expected results	Priority Level	Potential support by:
Facilitate the acceptance of movable assets as acceptable collateral for MSMEs in the e-commerce sector who are otherwise able to demonstrate sound business proposals.	Increased access to financing for e-commerce firms based on their business plans and movable assets.	High	MOIC, DAB, ABA
Develop tailored financial products at the commercial banking and MFI level aimed at increasing loan access for e-commerce firms. Expand existing MSME schemes to include e-commerce within the scope. Assess the fit for e-commerce firm requirements with Islamic finance options.	Tailored (including Sharia-compliant Murabha loan products) and affordable loan products aligned with the needs and requirements of e-commerce firms. Increased access to financing for women and youth led e-commerce enterprises.	High	DAB, ABA, Commercial Banks, MFIs
Conduct coaching/training at the enterprise level for IT firms as well as e-commerce entrants to improve their capabilities in strategic planning (business plans, financial planning) as well as operational management (recordkeeping, professionalization of operations) with the overall goal of exhibiting their creditworthiness to financial institutions. Special focus on women and youth led enterprises.	Enhanced capabilities of e-commerce firms to demonstrate creditworthiness to loan officers, leading to increased approval rate of loan applications. Increased approval rate of financing for women and youth led e-commerce enterprises.	High	ABA, ITC
In order to spur venture capital activity in the e-commerce sector, develop business plan/investor pitching competitions to expose companies as well as Afghan/international investors to the potential for investing in the sector.	Increased venture capital activity in the e-commerce sector or at least improved visibility for investors to bankable opportunities, and enhanced exposure of firms to investment opportunities.	Medium	MICT, ACCI, accelerators and incubators
Hold consultations between loan providers (commercial banks and possibly MFIs) and loan seekers (e-commerce firms) on the particularities of the e-commerce sector's financing challenges.	Improved understanding of both the demand and supply side related to the requirements of e-commerce firms, and their particular financing challenges, which would ultimately lead to improvements in the access to financing situation.	Medium	ABA, Commercial Banks, MFIs, e-commerce firms
Explore the possibility of a fund/business loan guarantee scheme to be established by the DAB and operated by lending institutions, commercial banks to decrease the risk perception of lenders in issuing loans to the e-commerce sector.	Enhance confidence (on the part of lending institutions), and improved lending rates for e-commerce and possibly other sectors such as IT due to risk-sharing by the DAB.	Low	DAB, Commercial Banks, MFIs



Annex I: Afghanistan country profile on etradeforall.org



COUNTRY PROFILE: AFGHANISTAN

Contact: info@etradeforall.org

GENERAL INFORMATION - 2016

Population 34.7 Millions	GDP 20 235 Millions current US\$	Merchandise trade 7 131 Millions current US\$
Internet users 3.7 Millions	GDP growth 3.6 %	Land area 652 860 km ²

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

E-COMMERCE ASSESSMENT - 2017

Rank in UNCTAD B2C E-commerce Index 132/144	Rank in ITU ICT Development Index 159/176	Rank in WEF Networked Readiness Index -/139
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Source: UNCTAD, ITU and WEF (complete URL address in the General Notes) Note: 1 = Best

ICT INFRASTRUCTURE AND SERVICES - 2016

Per 100 inhabitants

Internet users, 10.6

Fixed broadband subscriptions, 0.0

Active mobile broadband subscriptions, 13.5

Fixed broadband Internet tariffs, PPP \$/month

Highest tariff: 874.4

500

50

Tariffs in 50% of eco. are below this value

AFGHANISTAN, 50.0

34.1

Lowest tariff: 5.1

5

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

PAYMENTS - 2014

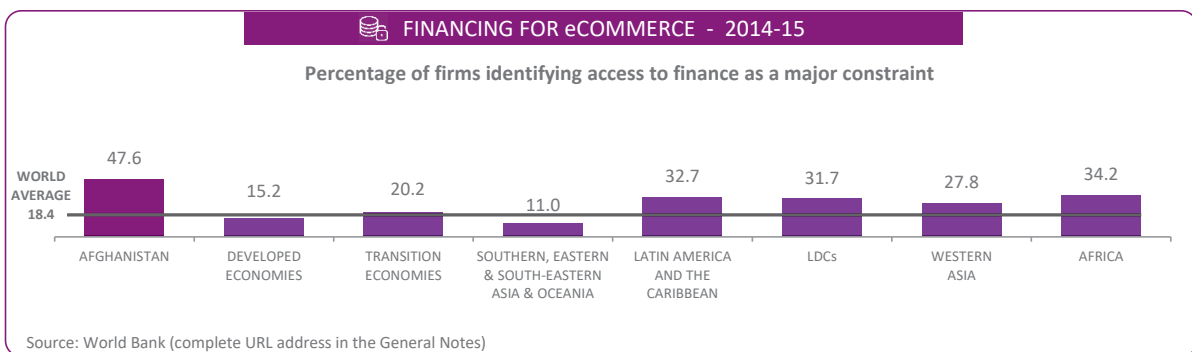
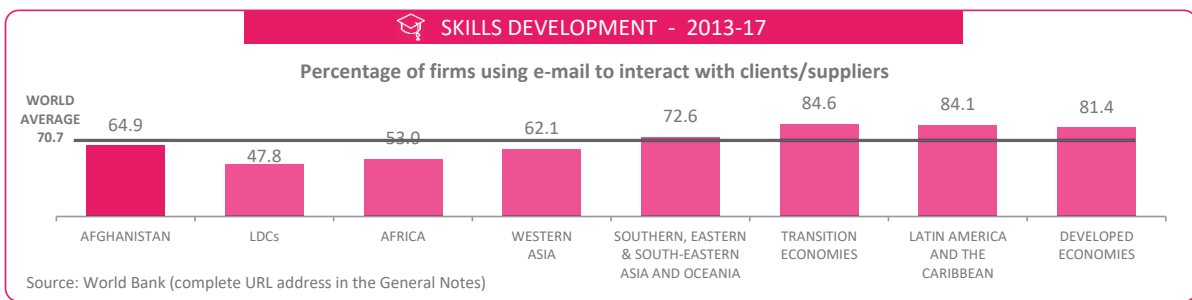
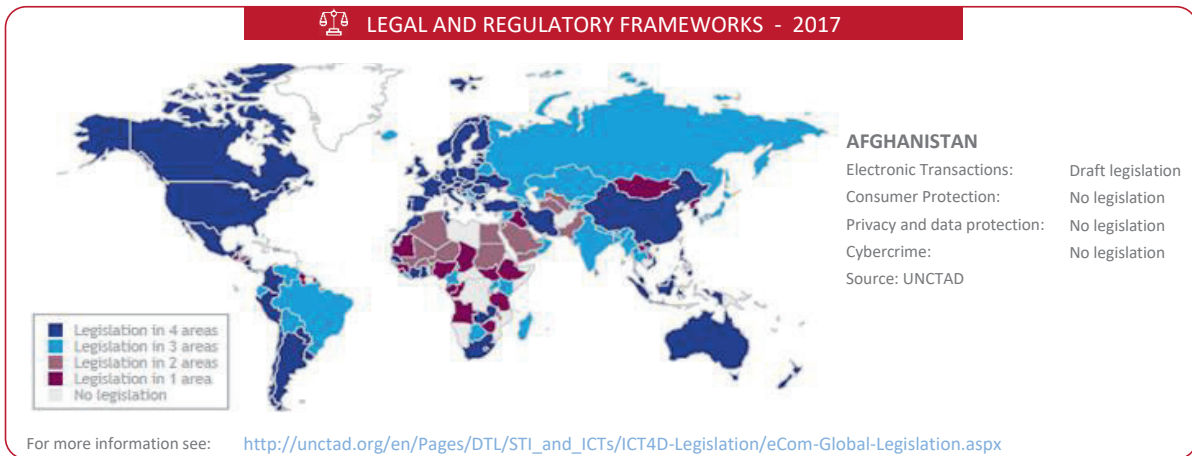
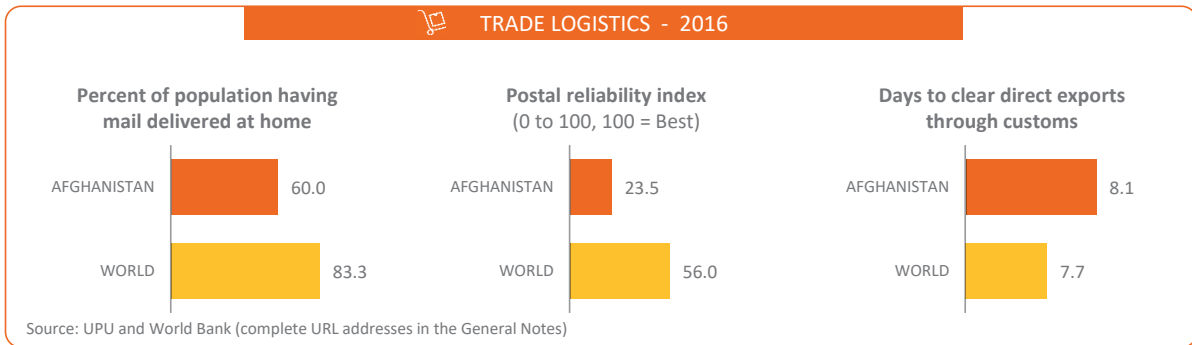
Debit card used in the past year	AFGHANISTAN, 1.7	SOUTHERN, EASTERN AND SOUTH-EASTERN ASIA & OCEANIA, 13.4	WORLD, 21.9
Credit card used in the past year	AFGHANISTAN, 1.1	SOUTHERN, EASTERN AND SOUTH-EASTERN ASIA & OCEANIA, 7.7	WORLD, 13.5
Used an account to make a transaction through a mobile phone	AFGHANISTAN, 0.3	SOUTHERN, EASTERN AND SOUTH-EASTERN ASIA & OCEANIA, 7.4	WORLD, 8.5

Per 100 inhabitants

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



COUNTRY PROFILE: AFGHANISTAN



Annex II: Bibliography and websites used

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- World Bank - Poverty Reduction and Economic Management Unit, Afghanistan Diagnostics Trade Integration Study (DTIS), 2012
- World Bank, Trade as a vehicle for growth in Afghanistan: challenges and opportunities, 2017

Main websites

- <https://thediplomat.com/2017/12/kabuls-plan-to-realize-afghanistans-geographic-dividend/>
- <https://www.transfer-to.com/moneytransfer/news/1053/Mobile-money-takes-off-slowly-in-Afghanistan-#2>



Annex III: List of UNCTAD Rapid eTrade Readiness Assessments of LDCs

- Madagascar: Évaluation rapide de l'état de préparation au commerce électronique (January 2019).
- Zambia: Rapid eTrade Readiness Assessment (December 2018).
- Uganda: Rapid eTrade Readiness Assessment (December 2018).
- Burkina Faso: Évaluation rapide de l'état de préparation au commerce électronique (September 2018).
- République togolaise: Évaluation rapide de l'état de préparation au commerce électronique (September 2018).
- Solomon Islands: Rapid eTrade Readiness Assessment (July 2018).
- Republic of Vanuatu: Rapid eTrade Readiness Assessment (July 2018).
- République du Sénégal: Évaluation rapide de l'état de préparation au commerce électronique (July 2018).
- Lao People's Democratic Republic: Rapid eTrade Readiness Assessment (April 2018).
- Liberia: Rapid eTrade Readiness Assessment (April 2018).
- Myanmar: Rapid eTrade Readiness Assessment (April 2018).
- Nepal: Rapid eTrade Readiness Assessment (December 2017).
- Samoa: Rapid eTrade Readiness Assessment (October 2017).
- Bhutan: Rapid eTrade Readiness Assessment (April 2017).
- Cambodia: Rapid eTrade Readiness Assessment (April 2017).

And: <http://unctad.org/en/Pages/Publications/E-Trade-Readiness-Assessment.aspx>



