Iraq
eTrade Readiness Assessment

UNITED NATIONS

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NOTE

Within the UNCTAD Division on Technology and Logistics, the ICT Policy Section carries out policy-oriented analytical work on the development implications of information and communication technologies (ICTs) and e-commerce. It is responsible for the preparation of the Digital Economy Report (DER) 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. The initiative is also behind the new eTrade for Women program, launched in 2019, which aims to promote a more gender-inclusive digital economy, in particular through its network of Ambassadors. These digital entrepreneurs are active in all developing regions and contribute to capacity building, mentoring and awareness raising activities for more inclusive gender policies.

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

The following symbols have been used in the tables:

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

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

Reference to "dollars" (US$) means United States of America dollars, unless otherwise indicated;

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

Reference to "IQD" means Iraqi Dinar. For the purpose of this report: IQD 1 = US$ 0.00084 (6 September 2019).

PREFACE

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

- E-commerce readiness assessment and strategy formulation

- ICT infrastructure and services

- Trade logistics and trade facilitation

- Payment solutions

- Legal and regulatory frameworks

- E-commerce skills development

- Access to financing

As part of the initiative, demand-driven assessments are envisaged to provide a basic analysis of the current e-commerce situation in the countries concerned, and to identify opportunities and barriers. The resulting reports will serve as valuable inputs to these countries' involvement in various discussions related to e-commerce and digital trade, such as in the context of the UNCTAD Intergovernmental Group of Experts on e-commerce and the Digital Economy.

It may furthermore help developing countries and Least Developed Countries (LDCs) to identify areas in which they could benefit from assistance by partners of eTrade for all.

The Iraq eTrade Readiness Assessment is the first assessment conducted by UNCTAD in a non-LDC country, adding to the twenty-five assessments conducted by UNCTAD in LDCs since 2017. It follows an enhanced methodology, including an in-depth contribution by the Universal Postal Union (UPU) as a key partner in this assessment.

With much appreciation, I would like to acknowledge the International Islamic Trade Finance Corporation for funding the eTrade Readiness Assessment of Iraq as well as for being a close partner within the eTrade for all initiative. With the eTrade for all partners, UNCTAD is committed to supporting Iraq in their resolve to harness the potential of e-commerce for development.

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

As a founding partner of UNCTAD's eTrade for all initiative, the Universal Postal Union (UPU) attaches great importance to the eTrade Readiness Assessment process as an important tool to build an e-commerce enabling environment both nationally and globally.

Iraq's eTrade Readiness Assessment is an important milestone in the UPU's contribution to the eTrade for all initiative. For the first time, the UPU has assessed the national post's payment (PRE) and digital readiness (DRE) for e-commerce at the same time. Combined with the UPU's postal Operational Readiness for E-commerce (ORE) assessments, this new approach has provided a holistic and complete diagnosis of the situation and role of the Post in Iraq as a key partner in the development of e-commerce from payment to delivery.

While recognizing that the postal network, with its vast geographical coverage and multi-dimensional services, is well placed to support e-commerce, the eTrade Readiness Assessment identifies a number of challenges for the postal sector in meeting key requirements for the development of e-commerce in the country.

In order to respond to the identified challenges, the report makes several recommendations that, if implemented, will enable the Iraqi Post to become a main actor in further e-commerce facilitation, especially in promoting SMEs engagement in e-commerce.

This assessment should be followed by actions and the UPU looks forward to working closely with UNCTAD and interested development partners to support the implementation of the report's recommendations.

Siva Somasundram
Director, Directorate of Policy,
Regulations and Markets (DPRM),
International Bureau, Universal Postal Union

FOREWORD

E-commerce has great potential to become a powerful driver of economic growth, inclusive trade, and job creation in the member countries of the Islamic Development Bank (IsDB) Group by offering the opportunity to access wider markets without the constraint of having to establish and maintain physical presence. However, some of our countries still face numerous challenges to develop their online presence, due to the unavailability of Information and Communication Technology (ICT), access to the required skills and financial support, limited infrastructure and adequate regulatory framework.

In this context, at the International Islamic Trade Finance Corporation (ITFC) - member of the IsDB Group - we consider that digitalization is now the future of trade, and one of our strategic focus in ITFC is to support our member countries to get the enabling environment for e-trade. Since 2017, ITFC has adopted a new model that goes beyond financing trade into building the capacities to meet the critical market needs of our member countries.

One of our member countries, Iraq, has recently entered into a new phase of post-conflict reconstruction. In line with its 2030 Vision driven by digital transformation, ITFC, through its flagship program Aid for Trade Initiative for the Arab States (AfTIAS), partnered with the United Nations Conference on Trade and Development (UNCTAD) and Universal Postal Union (UPU) to assess the readiness of post-conflict Iraq to engage in and benefit from e-commerce. Through UNCTAD's eTrade Readiness Assessments, developing countries can take stock of their ICT capabilities and design a strategy to tackle challenges to and bottlenecks in the growth of e-commerce and the digital economy.

The eTrade Readiness Assessment of Iraq aims to increase national actions (policies and programs) that will help raise its readiness and capacity to engage in and benefit from e-commerce; grant enhanced access to technical cooperation opportunities available among eTrade for all partners and leverage possible venture opportunities by eTrade for all partner members.

This UNCTAD assessment provides a roadmap for developing e-commerce in Iraq and supports the government's goals to upgrade ICT infrastructure, build digital trust by improving the legal framework and support e-government initiatives.

In this regard, I would like to sincerely thank UNCTAD for putting together this significant contribution to the evidence base for supporting digital development in Iraq.

I would like to confirm that ITFC is committed to supporting its member countries' trade-led development efforts, including leveraging technology for better trade.

Eng. Hani Salem Sonbol
Chief Executive Officer
International Islamic Trade Finance Corporation
Chairman, Aid for Trade Initiative for the Arab States (AfTIAS) Program

ACKNOWLEDGEMENTS

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ABBREVIATIONS

AfT	Aid-for-Trade
ASYCUDA	Automated System for Customs Data
ATM	Automated Teller Machine
BWC	Business Women Center
BPC	Border Ports Commission
CBI	Central Bank of Iraq
CMC	Communications and Media Commission
DFS	Digital Financial Services
DP	Development Partner
DRE	Digital Readiness for e-commerce
DtF	Distance to Frontier
E2E	Exchange-to-Exchange
EGCC	Committee for Management & Coordination of Governmental Activities Towards Establishing an E-Government
EGDI	E-Government Development Index
EPI	E-Participation Index
EIF	Enhanced Integrated Framework
EMS	Express Mail Service
ENTF	E-commerce National Task Force
ESCWA	United Nations Economic and Social Commission for Western Asia
FICC	Federation of Iraqi Chambers of Commerce
FSP	Financial Service Providers
G2B	Government-to-Business
G2C	Government-to-Consumer
GDP	Gross Domestic Product
GICC	General Iraqi Commission of Customs
IATCIS	Iraqi Association for Technology of Computer and Information System
IATA	International Air Transport Association
IQD	Iraqi Dinar
IDB	Islamic Development Bank
IC	Iraqi Customs
ICT	Information and Communication Technology
IMF	International Monetary Fund
IP	Iraqi Post
ISP	Internet Service Providers
IDI	ICT Development Index
IFI	Iraqi Federation of Industries
INBC	Iraqi National Business Council
INSA	Iraqi National Security Advisor
IT	Information Technology
ITU	International Telecommunication Union
LDC	Least Developed Country

MENA	Middle East and North Africa
MFI	Microfinance institutions
MoC	Ministry of Communications
MoT	Ministry of Trade
MSME	Micro, small and medium-sized enterprises
NDP	National Development Plan
NCTTF	National Committee for Trade and Transport Facilitation
NTFC	National Trade Facilitation Committee
OECD	Organisation for Economic Co-operation and Development
ORE	Operational Readiness for E-commerce
POS	Point of Sale
PPP	Public-private partnership
PRE	Payment Readiness for e-commerce
PSP	Payment Service Provider
SME	Small- and medium-sized enterprises
SOE	State-owned enterprises
TFA	Trade Facilitation Agreement
UNCDF	United Nations Capital Development Fund
UNCITRAL	United Nations Commission on International Trade Law
UNCTAD	United Nations Conference on Trade and Development
UOITC	University of Information Technology and Communications
UPU	Universal Postal Union
US$	United States Dollar
VAS	Value-added Service
WEF	World Economic Forum
WBG	World Bank Group
WCO	World Customs Organization
WTO	World Trade Organization

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EXECUTIVE SUMMARY

Introduction

Iraq's economy is at a turning point. For decades it has relied on crude oil production and export to drive the economy. In many ways, this was a success story, with oil revenue contributing to healthy GDP growth and funding a wide range of government services. With the relatively improved security environment and a shift towards post-conflict reconstruction, Iraq is now well-positioned to diversify its economy and take advantage of new digital technologies.

The economy is gradually improving, with 4.4 per cent GDP growth in the first half of 2019. This growth was driven by a rise in crude oil production, but also a rebound in non-oil economic activity. The Iraqi economy also received a boost of confidence in 2019 with the signing of several trade agreements with its neighbors, including Iran and Saudi Arabia.

Looking towards the future, there is a stark need to diversify the Iraqi economy. Oil accounts for more than 90 per cent of government revenue, and in 2018 crude oil constituted 98 per cent of exports. Increasing non-oil economic activity would diversify the Iraqi economy, increase employment opportunities and create new value chains. Increasing regional and international trade will be key.

Iraq also has a very young population, with nearly 60 per cent of the population under 24 years old. The oil sector employs just one per cent of the population, however, and the public sector can no longer afford to absorb the thousands of graduates the country produces. In this context, the role which e-commerce can play is promising. There is deep appreciation of the importance of e-commerce among the people of Iraq and a few promising startups. However, very few practical steps have been taken to create an enabling environment for e-commerce to thrive, and no national plans have been established to move Iraq towards a digital future.

E-commerce readiness assessment and strategy formulation

The most recent national development plans and strategies established by the Government of Iraq provide the framework for economic development, trade expansion, services provision and infrastructure development. Despite covering many sectors and industries, the plans do not explicitly mention e-commerce nor its great potential. However, a few national bodies have developed initiatives that support the growth of e-commerce.

The environment for e-commerce growth in Iraq is relatively weak and there are many challenges that need to be addressed. Key barriers include poor and slow Internet connectivity coupled with high prices, inadequate ICT, transport and logistics infrastructure, the lack of legislation governing e-commerce and related services, absence of laws and incentives to promote investment in e-trade, inefficient postal-customs-transport processes, restrictions on money and profits transfer, lack of knowledge and skills related to the digital economy, online privacy concerns and the lack of user trust in online transactions.

Moreover, Iraq lacks a forum to foster public-private dialogue on issues related to e-commerce and the digital economy. The in-country consultations for the preparation of this assessment were a step in the right direction, with strong interest in developing stronger dialogue and partnerships shown by both public and private sector stakeholders. In this regard, establishing an E-commerce National Task Force (ENTF) in the Prime Minister's Office would be an important step to guide the formulation and follow-up on the implementation of a national e-commerce strategy.

ICT infrastructure and services

The ICT sector in Iraq has a key role to play not only in the expansion of e-commerce but also for achieving overall sustainable development. Rebuilding infrastructure damaged or destroyed by decades of conflict is crucial. Although the importance of ICT is universally recognized and there seems to be willingness among major stakeholders to work together, no agreed-upon national strategy has been developed for the sector.

The mobile services market is fully liberalized with three nationwide operators. Public-private cooperation in the sector is limited and there appear to be some duplication of visions and responsibilities

between the Ministry of Communications (MOC) and Communication & Media Commission (CMC). And despite the affordable prices, adoption rates for mobile and fixed broadband services are low compared to other Arab countries.

Trade logistics and trade facilitation

Prolonged conflict has caused major damage to the existing transport infrastructure in Iraq, including roads, bridges and railways. Reconstruction of this infrastructure continues and implementation of specific projects should be accelerated in order to improve logistics and trade facilitation.

Postal services, a key enabler for e-commerce growth, has experienced important improvements in the last few years and are generally in line with international standards. The UPU assessment of the Iraqi Post's readiness for e-commerce highlights many operational and digital gaps and shortcomings including the absence of coordination between the Post and other institutions for e-commerce development. The assessment also highlighted the priority interventions for the Iraqi Post in order to develop the needed capacity for cross-border e-commerce. The Iraqi Post Initiative proposes an important way to move forward if implemented with support from local stakeholders and international agencies. The Iraqi Post could play a key role in facilitating MSMEs diffusion into the e-commerce arena by providing a hub and accelerator for MSMEs, in addition to providing a one stop shop for e-commerce facilities.

The current setup of the Iraqi Customs is one of the main challenges for trade facilitation. Key reforms are needed to comply with international requirements and to improve coordination, especially for cross-border trade.

Payment solutions

Iraq remains a cash-based society and further work is needed to develop and introduce e-payment solutions. Developing e-payment solutions and introducing them to consumers is a top priority for both the public and private sectors.

Lack of trust in online transactions among consumers and merchants remains the primary barrier and will require widespread awareness-raising backed by secure solutions. Adoption of cashless payments

is likely to take hold among the growing youth population, who tend to be more technologically savvy than previous generations. Payment solutions could also offer a secure, affordable and convenient solutions for remittances from the diaspora.

Legal and regulatory frameworks

Moreover, Iraq lacks a comprehensive legal and regulatory framework regulating ICT.

In its current state, the Iraqi legal and regulatory framework is insufficient to foster e-commerce growth. It has key shortcomings in the areas of e-transactions, consumer protection, privacy, data protection, cybercrime and intellectual property.

While some laws have been drafted and promulgated, they are incomplete and do not adequately address the unique needs of e-commerce and the evolving digital economy, nor the specific needs of SMEs. The weak legal and regulatory framework has contributed to the current reality, where both consumers and businesses are hesitant to conduct online transactions. Both groups remain uncertain whether their rights and interests would be enforced during online transactions and in the digital sphere.

E-commerce skills development

The Iraqi entrepreneurial ecosystem is still nascent and shallow. Private sector institutions, companies and employees - especially MSMEs - lack the knowledge and expertise to effectively engage in e-commerce. Among MSMEs there is a general lack of awareness about the benefits of e-commerce; this is reflected in their priorities and plans that do not consider the potential benefits of online commerce, including access to new markets. Among the general population, trust in online transactions remains low.

The Iraqi public sector also lacks the skills and knowledge to develop an enabling environment for e-commerce and digital economy, which has been identified as a major challenge. This reality prevents public sector institutions from developing the necessary policies and programs to support the private sector, which relies on an enabling environment to drive innovation and introduce new products and services. Without an enabling environment supported and enhanced by the public sector, the potential of the private sector is constrained.

Access to financing

The lack of access to financing for e-commerce startups and MSMEs, from the formal banking system and the non-banking financial system, is another barrier to the development of e-commerce in Iraq. The main reasons include the limited use of formal financial institutions by citizens and MSMEs, and the inability of financial institutions and financing initiatives to address the needs of customers such as startups, small businesses and women-run enterprises. Typically, the products and services offered by these financial institutions are geared towards large established firms in traditional sectors.

Although the Iraqi entrepreneurial system remains nascent, promising developments are emerging. Five innovation hubs have been established across the country and there is growing interest in digital innovations from local incubators and accelerators, the telecommunications company Zain, the donor community and other stakeholders.

Figure 1: Challenges Hindering Investing in E-commerce

Survey question: How important are the following to create an enabling environment for e-commerce (public and private sector, 63 responses)
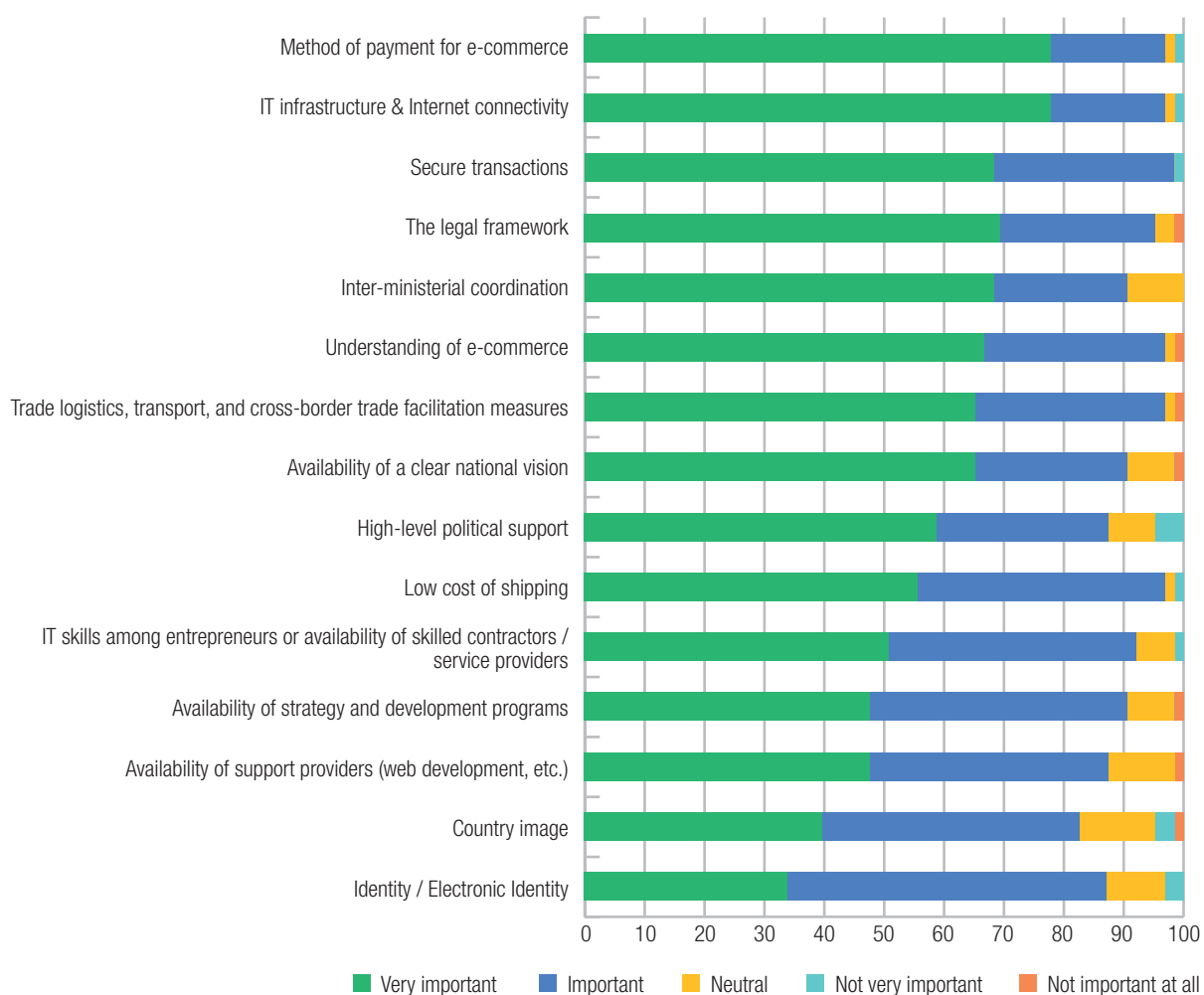
Source : UNCTAD

SUMMARY OF MAIN FINDINGS AND MAIN RECOMMENDATIONS

MAIN FINDINGS	MAIN RECOMMENDATIONS
e-Commerce Readiness Assessment and Strategy Formulation	
While the potential for e-commerce development in Iraq is strong, there is no policy or strategy aimed at holistically addressing this important issue. Current national development plans do not explicitly mention the role of e-commerce in the economy and across sectors, although some of the plans do tackle issues that are relevant to the enabling environment. A few national bodies have drafted relevant initiatives although without coherent strategies and plans. While public-private dialogue or coordination on e-commerce is currently very limited, several public and private sector institutions and representatives have expressed a willingness to engage in the development of e-commerce and the digital economy. The country has a growing market for e-commerce platforms, with a few successful examples. E-commerce can play a key role in developing and diversifying Iraqi exports; however, the enabling export and business environment is not conducive for attracting local or foreign investments.	Develop a demand-driven, unified, national e-commerce strategy. Establish an E-commerce National Task Force (ENTF) located in the Prime Minister's Office to guide the formulation and follow-up on the implementation of the national e-commerce strategy, and to advocate for the revision, adoption, and implementation of e-commerce related laws. Design and implement national awareness programs regarding e-commerce. Raise awareness among merchants about the security of electronic payments, with focus on MSMEs. Support the integration of key governmental services and develop public-private cooperation mechanisms. Develop polices and investment incentive packages to improve the enabling environment for e-commerce, especially for MSMEs.
ICT Infrastructure and Services	
Iraq has one of the lowest fixed broadband and mobile adoption rates in the MENA region despite relatively affordable prices. For consumers and businesses, the prices are high relative to the low speed provided. The mobile market is fully liberalized with three operators providing national coverage. The two main stakeholders – MoC and CMC – have overlapping visions that lead to duplication of efforts. Moreover, no comprehensive strategy legal and regulatory framework exists for the ICT sector. Limitations related to Iraq's fixed broadband infrastructure is holding back the overall digital development of the country.	Develop a national strategy for the development of ICT as part of the e-commerce national strategy. Rebuild the ICT infrastructure destroyed by conflict to improve access to reliable high-speed Internet, including mobile broadband. Specify complementary visions and strategies for the MoC and the CMC. Update and develop the legal and regulatory framework for the ICT sector. Establish continuous public-private-academia dialogue on improving the ICT sector between MoC, CMC, IATCIS and the University of Information Technology and Communications (UOITC). Encourage competition and private investment in infrastructure, especially fixed broadband infrastructure. Study the feasibility of developing international infrastructure to turn Iraq into an international communications hub.

MAIN FINDINGS	MAIN RECOMMENDATIONS
Trade Logistics and Trade Facilitation	
Conflict has caused major damage to transportation infrastructure throughout the country. The outdated operational model of the Iraqi Customs is one of the main reasons for the lack of necessary trade facilitation mechanisms. Without addressing challenges related to the overlap with the Border Ports Commission, the impact of any reform will be minimal. The time and cost to export and import in Iraq are among the highest globally. Some major improvements have been achieved by the introduction of regulations on electronic processing of moving goods. The Iraqi Post complies with many international standards, but some further reform is needed. All main online shopping companies operating in Iraq have their own delivery services, showing very low trust in the post delivery services. The Iraqi Post Initiative has a huge potential but still needs to be implemented. There is a lack of a clear definition of the role of the Iraqi Post in the digital economy and a lack of integration of postal services with other e-commerce stakeholders. The NCTTF is handling key trade facilitation issues; however, the impact is still limited.	Implement proposed transportation projects including the rehabilitation and development of Mosul and Nasiriya International Airports. Reform the 'starting a business' process. Automate data processing and exchange for customs clearance information. Develop the capacity of Customs. Simplify and automate customs procedures by adopting the Automated System for Customs Data (ASYCUDA). Define the mandates of Customs and Border Ports Commission (BPC). Implement the Iraqi Post Initiative by formulating a strategy that clearly maps the future postal business model and the approach towards reaching the aspired level, including the installation of priority systems and tools identified by the UPU assessment, such as the CDS. The mandate of the NCTTF should be amended to include clear reference to its mandate to act as NTFC as per the requirements of the WTO Trade Facilitation Agreement. Strengthen cooperation and coordination between the BPC, Customs, Iraqi Post and forwarders to ease the movement of goods in a time- and cost-efficient manner.
Electronic Payment Solutions	
Despite an increase in the number of e-payment solutions, and especially m-payment solutions, the Iraqi economy continues to be dominated by cash payments, which leaves it unprepared for e-commerce. Investing in safe and secure e-payment and cashless payment solutions continues to be a priority for the private sector. Iraq has not adopted comprehensive payments legislation, and payment of taxes or customs duties is still handled manually. Fiscal decentralization has been one of the key challenges, since each government agency and governorate decides on its own banking arrangements. Most mobile wallet transactions in the country are still cash-in, cash-out or person-to-person transfers. Payment service providers have not managed to make significant progress in acquiring merchants. M-payment solutions could be a main growth driver and compensate for the slow growth of bank accounts and the challenges related to having a bank account. M-payments would also help reach youth and marginalized groups, especially women.	Develop the legal and regulatory framework to ensure safe and secure payment solutions and sensitize users. Enact a comprehensive payment legislation. Reduce operating costs for m-payments. Enhance ease-of-use for m-payments. Reliability of electronic payment channels should be monitored by CBI, and underperforming banks and financial institutions should be induced to improve their performance. Mobile wallet providers should attain interoperability—not only for P2P transactions, but also for merchant payments and bank account-to-wallet transfers. Develop national QR code standard. Develop and implement a unified approach to electronic collection of taxes, customs duties and other person-to-government and business-to-government payments.

MAIN FINDINGS	MAIN RECOMMENDATIONS
Legal and Regulatory Framework	
The Iraqi legal and regulatory framework lacks the key provisions necessary to enable and support the development of e-commerce. Existing laws are incomplete, outdated, or not implemented. For Iraqi e-shoppers, consumer protection is a priority, which makes it a key growth driver for e-commerce. The limited capacity of legislators, including members of parliament, makes the preparation, enactment and enforcement of laws related to e-commerce and the digital economy a lengthy process. The Sandbox approach is a good way to develop laws and build capacities simultaneously. The institutions/bodies required to be established by e-commerce related laws include a Consumer Protection Council, national Intellectual Framework and National Cyber Security Body.	Update and implement the Electronic Signature and Electronic Transactions Act to serve the needs of Iraqi businesses, especially SMEs. Update and implement the Consumer Protection Act to accommodate the specific needs of e-commerce and assure e-consumer protection. Update and implement the Data Protection and Privacy Law and the Cybercrime Law in line with international and regional best practices and develop cross-border authorities to fight cybercrimes. Update and implement the Intellectual Property Law to provide for the specific needs of e-commerce. Develop a comprehensive, long-term, learning-by-doing capacity-building program where local capacity of policymakers and lawmakers, including judiciary, is built during the revision of laws and regulations with the support from regional and international experts, including UNCTAD and UNCITRAL. Establish a Consumer Protection Council, a National Cyber Security Body or build on the existing INSA. Establish "Regulatory Sandboxes".
e-Commerce Skills Development	
Both public and private sectors lack skills and knowledge to develop an enabling environment for e-commerce. Private sector institutions, companies - especially MSMEs - lack the knowledge and expertise to effectively engage in e-commerce. The startup environment is growing, but the development of tech-based MSMEs remains slow due to limited e-commerce business development services and scarce funding. The limited number of public servants having proper knowledge on the issues around e-commerce and the digital economy, coupled with a high level of employee turnover among national specialized committees' members makes the capacity of the government to devise relevant and actionable policies fragile. Currently, no coordination exists between public and private sector stakeholders to develop a comprehensive capacity-building program nor to adapt curricula to ICT and e-commerce in universities, TVET institutions, and high schools.	Raise awareness of e-commerce and the digital economy in public and private sectors and develop capacity-building programs and training. Build a national awareness program to educate consumers about the safety of online payments and transactions and the benefits of online shopping. Provide training-of-trainers for specific skilled employees who could train others. Establish a formal coordination mechanism such as the Private Sector Development Council (PSDC) including both the public and private sectors as well as academia to design a comprehensive and integrated capacity-building program and coordinate available capacity-building resources provided by stakeholders. Acquire deeper understanding of MSMEs and entrepreneurs and their needs. Establish an independent national SMEs agency focusing on supporting SMEs and digital entrepreneurs. In addition to revising its curriculum to match the needs of the digital economy, the educational system could partner with the public and private sectors to support accelerators and hubs for entrepreneurs and startups.

MAIN FINDINGS	MAIN RECOMMENDATIONS
Access to Financing	
Access to financing is one of the major challenges for the development of e-commerce in Iraq. The banking system and non-banking system both fail to provide the funding needed by startups and MSMEs. Banks in Iraq have little experience lending to SMEs, and many do not have the expertise to assess credit risk, especially in a perceived risky environment such as e-commerce. Two specific initiatives have been deployed by the CBI to provide financing to under-banked segments. The rate of disbursement has been very low. MSMEs are barely aware of this initiative. Moreover, the strict requirements to qualify for this funding make it nearly impossible for MSMEs to access. The majority of liquidity remains outside the formal financial system. Most Iraqi startups are self-funded or raising funds outside of the country. In the World Bank's Doing Business ranking for 2019, Iraq is ranked last (position 186) in access to credit. MFIs face many obstacles to their growth.	Within existing financial institutions, develop specific financing solutions for startups, small businesses and women-run companies. Introduce a secured transaction regime with a movable assets' registry. Develop banks' expertise on the needs of startups and other vulnerable customers. Develop coordination between the public and private sectors with international development partners to provide specialized financing programs. Reconsider the policies and requirements of CBI's IQD 6 billion initiative. Improve the legal and regulatory environments for MFIs. Deepen linkages with early-stage investors in Iraq, the diaspora, and the MENA region. Design and deploy an export finance mechanism and an export guarantee fund. Promote the opportunities and financing needs along the e-commerce value chain.

METHODOLOGY

In this first eTrade Readiness Assessment of a non-LDC, UNCTAD has developed a five-step methodology to ensure a high level of participation and engagement of key stakeholders in the consultative process, including the selection of one priority area to be assessed in cooperation with eTrade for all partners and the early engagement of in-country donors. In the case of this assessment, the UPU, based on discussions with the Government of Iraq, has partnered with UNCTAD to prepare a deeper analysis of the Post environment.

Figure 2: Assessment methodology

PHASE 1	Stakeholder engagement	Literature review	eTrade Readiness Survey Summary
PHASE 2	Definition of priorities	Engage eT4all partners	+
PHASE 3	Survey customization	Survey dissemination	eTrade Readiness Report
PHASE 4	In-country data gathering	Local validation of early findings	+
PHASE 5	Report drafting	Validation	Action Matrix
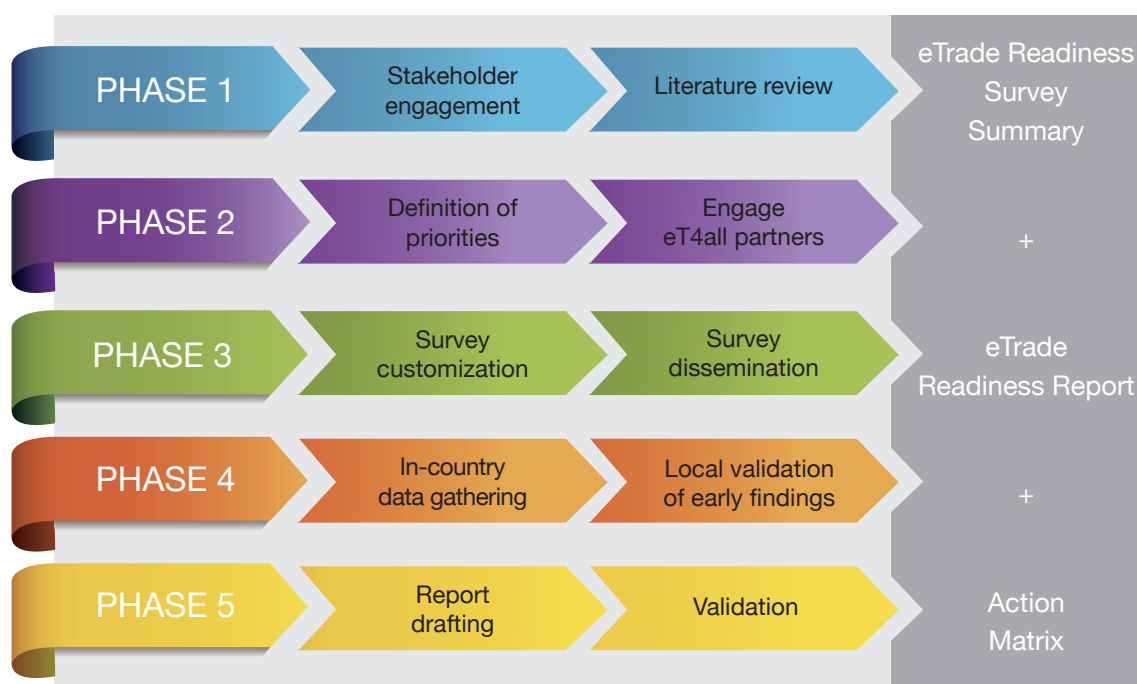
✓ **Phase 1 | Stakeholder engagement and literature review, 1 May – 25 July 2019.**

✓ **Phase 2 | Discussions with the Government of Iraq to define the scope of the assessment and main priorities.** Considering the interest of the Government in exploring the main bottleneck with logistics, especially regarding postal readiness, the UPU was invited to provide a deeper analysis. In-country donors informed about the project. **1 June – 25 July 2019.**

✓ **Phase 3 | Online survey customization and dissemination, June – July 2019.** Two surveys customized for the public and private sectors were distributed to more than 100 stakeholders in Iraq by the National Consultant. A total of 38 completed private sector surveys and 26 completed public sector surveys were used.

✓ **Phase 4 | A high-level dialogue workshop took place on 28 July 2019, and the six focus group discussions took place in Baghdad between 29 – 31 July 2019. Several bilateral meetings were held on 1 August 2019.**

✓ **Phase 5 | Report writing, review and finalization with UNCTAD, the Government of Iraq and eTrade for all partners, November 2019 – August 2020.**

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

✓ E-commerce readiness assessment and strategy formulation

✓ ICT infrastructure and services

✓ Trade logistics and trade facilitation

✓ Payment solutions

✓ Legal and regulatory frameworks

✓ Skills development for e-commerce

✓ Access to financing

The information provided in this report is based on data collected from respondents to the UNCTAD's surveys conducted for both the public and private sectors, the stakeholders' meetings during the in-country mission, the documents submitted by stakeholders, and the contributions made by developmental partners (DP).

The UPU has contributed to this assessment in three areas: the ORE project, the payment systems, and the preparation for the Iraqi Post's digital transformation. This consolidated approach called for the involvement of UPU experts in these areas, as well as close collaboration with the Iraqi Post's national ORE project team. Questionnaires and interviews were conducted by the UPU to assess the needs of representatives of various bodies involved in Iraq (Ministries of Communications and Trade, customs authorities, Iraqi Post, etc.). As a result, the UPU has been able to draw up a set of recommendations that will enable the Iraqi Post to make an effective contribution to the eTrade Readiness Assessment of Iraq and provide concrete guidelines for their implementation in support of e-commerce development in Iraq.

FINDINGS UNDER THE SEVEN ETRADE FOR ALL POLICY AREAS

1. E-COMMERCE READINESS ASSESSMENT AND STRATEGY FORMULATION

Similar to most countries around the world, Iraq recognizes that e-commerce is emerging as a promising contributor to economic development and growth. In Iraq, the role of e-commerce in the development process is still in its very early stages. However, supported by encouraging trends in different niches, e-commerce could become a key driver of economic development and trade. If the Iraqi government proactively creates an enabling environment for e-commerce and the digital economy, there will be opportunities for MSMEs and entrepreneurs to create new and innovative businesses. The digital economy has the potential to create new jobs, increase regional and international trade and play a key role in diversifying the economy beyond oil exports.

Despite significant challenges facing the country, including post-conflict reconstruction, several demographic, economic and cultural factors point towards a bright future for e-commerce in Iraq.

- **Demographics:** Sixty per cent of the population is younger than 24 years old and the median age is 20 years old. These young people are more tech-savvy than previous generations and the sheer number of young people suggests strong future demand for online content and e-commerce.

- **Economy:** Following years of civil war, the security situation in Iraq has improved and the economy is slowly recovering.

- **Social:** E-commerce may offer an alternative for women, who face social and family restrictions related to moving freely in public areas, to purchase goods and services. E-commerce also makes it easier to run a home-based business.

- **Internet use:** According to the latest figures provided by ITU, the share of individuals using the Internet stood at 49.4 per cent in 2017[1]. Internet use in Iraq grew by 158 per cent from 2016 to 2017. Increased Internet use is one factor that can help fuel e-commerce growth.

- **Environment:** Considering the extremely hot Iraqi weather, with summer temperatures reaching 123°F (51°C), e-commerce can provide an attractive alternative to shopping at brick-and-mortar stores.

- **Traffic:** In major cities, heavy traffic prevents easy access to markets or shopping malls. E-commerce provides a convenient and efficient alternative.

- **Competition:** Increasing competition among e-commerce websites and platforms in Iraq is likely to lead to a broader variety of products, at lower costs. E-commerce can also provide access to international brands, many of which are not currently available in Iraq.

E-commerce can help diversify Iraq's economy, especially its heavy dependence on oil export revenues. Currently, crude oil accounts for 98 per cent of Iraqi exports and 90 per cent of the Government's revenue comes from the oil sector. Despite the outsized role it plays in the economy, the oil sector employs only one per cent of the population and cannot absorb the thousands of graduates the country produces. This situation calls for developing a National Export Strategy with the main strategic objective of lowering dependency on oil exports and diversifying Iraqi exports. A demand-driven e-commerce strategy can play a key role in diversifying Iraqi exports.

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[1] *ITU figures for 2017. The metadata for Iraq say: "Stratified Random Sample: covering the 19 provinces uniformly where each province included 25 clusters, selecting seven families from each cluster, excluding two districts in the provinces of Anbar and Mosul."*

Figure 3: Population Pyramid of Iraq, 2019
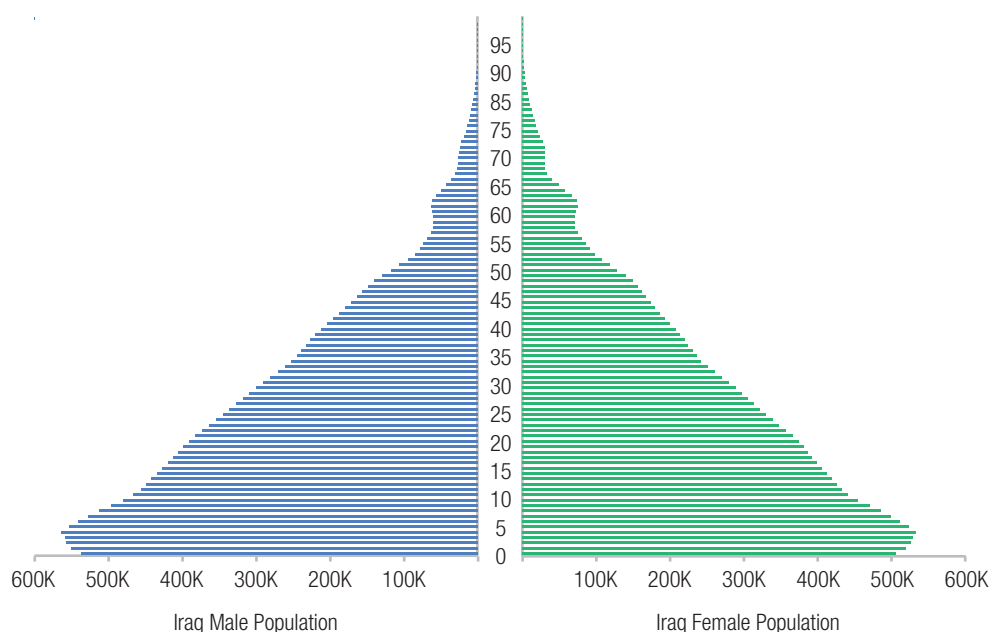
Source : World Population Review, http://worldpopulationreview.com/countries/iraq-population/

Table 1: Total Exports, Iraq, 2014-2018 (in Billion IQD and Million US$)

Commodity Exports	2014		2015		2016		2017		2018		Annual Change Ratio (%)	Compound Growth Rate 2014-2018 (%)
	Billion IQD	Million $	Billion IQD	Million $	Billion IQD	Million $	Billion IQD	Million $	Billion IQD	Million $		
Crude Oil	98,095.4	84,129.8	57,201.8	49,058.2	51,562.3	43,622.9	70,400.3	59,560.3	99,068.9	83,814.9	40.7	0.2
Oil Products:												
Naphtha	0.0	0.0	94.6	81.1	71.9	60.8	201.1	170.2	398.5	337.1	98.2	-
Aslphalt	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.2	4.4	-	-
Total Oil Products	0.0	0.0	94.6	81.1	71.9	60.8	201.1	170.2	403.7	341.5	100.7	-
Commodity Export	241.5	202.7	230.5	191.2	108.3	90.3	348.7	291.9	1,212.0	1,025.4	247.6	49.7
Total	98,336.9	84,332.5	57,526.9	49,330.5	51,742.5	43,774.0	70,950.1	60,022.4	100,684.6	85,181.8	41.9	0.6

Source: Iraq Central Statistical Organization

E-commerce can help Iraqi businesses access new B2C and B2B markets. Looking at the top commodity products with export potential, a focused strategy on B2C e-commerce supported by developing high value-added products from the following industries could be a starting point:

- Dates and dates-based products
- Leather-based garments and furniture
- Carpets and other textile floor coverings of textile materials
- Handicrafts
- Gems and precious metals

There is a growing market of e-commerce platforms in Iraq. Some of these include Shoppini[2], Chanbar[3], Taif, the food delivery app Foodo[4], various shopping websites and three taxi apps. The Kurdistan Region of Iraq (KRI) has a more developed international market.

1.1 E-commerce readiness and positioning of Iraq

Iraq lags other countries in the region in e-commerce readiness and activity. The country faces many obstacles, including a lack of research and data related to e-commerce and the digital economy, no unified vision and strategy for e-commerce growth, and a business environment that is not conducive to digital startups and e-commerce ventures.

An overarching challenge is the lack of trust in online commerce among consumers and businesses. Developing trust across the e-commerce ecosystem – among private companies, the government and consumers – is crucial to growing e-commerce in Iraq and will require a concerted effort across several policy areas. Evidence from other countries has demonstrated that once this trust begins to take hold, e-commerce becomes a way of life for many consumers and businesses.

Box 1: Shopini

Shopini is one of the largest online retailers in Iraq, headquartered in Basra. It owns large stores of its own and sells products imported by the company, in addition to products of other companies and suppliers, directly to consumers.

"Our site is not a copy of Amazon or any other site, it is just a similar idea developed to adapt to the ideas, mentality, culture and structure of the Iraqi society. It took us two years to study and implement our idea and another year to upload the products. Four months after its launch in January 2016, Shopini achieved a growth rate of 60 per cent and we continue to grow. In the first eight months of 2019 we grew by 40 per cent," said Shopini's owner and founder.

More than 250,000 products were added to the website in 2019 and the application has been downloaded 2.5 million times.

Many of the challenges facing Shopini are relevant to e-commerce sites in general:

- A weak e-commerce culture and no dedicated body to raise awareness and educate citizens of all ages about e-commerce and online shopping;
- The lack of government support for e-commerce businesses in terms of facilitating business registration, freedom of movement for goods and parcel delivery services throughout Iraq, and lack of consistent laws and procedures among different Iraqi governorates;
- Cumbersome and arbitrary customs procedures that result in delays and added costs to clear goods;
- Lack of trust in online payments. Credit card payments constitute only 1.5 per cent of Shopini, with most consumers making payment on delivery;
- Poor Internet speed and reliability, along with high prices;
- The procedure for registering companies is difficult and long. Because Shopini was registered in the United Arab Emirates, the procedure was faster and easier;
- Unlike foreign companies operating in Iraq, regulations do not allow the registration of the Shopini name in English. This regulation hurts Iraqi companies who are competing with regional and international platforms.

Source: Interview with Shopini's team and Shopini website and brochure

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[2] *https://www.shopini.com/*
[3] *https://www.chanbar.com/*
[4] *https://www.facebook.com/foodo.Iraq/*

Iraq is ranked 131 out of 151 economies in UNCTAD's B2C E-commerce Index 2019, an improvement from 139 in 2017. This improvement is the result of a significant increase in the share of individuals in Iraq using the Internet and the share of individuals with an account at a financial institution or mobile-money-service provider. However, Iraq lags its regional peers in the Index overall. One reason is its extremely poor UPU Postal Reliability Score. Iraq scores 3, because it has one of the lengthiest average delivery times in the world, coupled with large levels of uncertainty regarding delivery[5]. The Index measures an economy's readiness to support online shopping using four indicators: 1) Account ownership at a financial institution or with a mobile-money-service provider (per cent of population age 15+); 2) Individuals using the Internet (per cent of population); 3) The Postal Reliability Index; and 4) Secure Internet servers (per 1 million people).

Table 2: UNCTAD B2C E-commerce Index for Iraq 2017-2018-2019

Year	Rank	Share of individuals using the Internet	Share of individuals with an account (Age 15+)	Secure Internet servers (normalized)	UPU postal reliability score	Index value
2019	131	(2019 or latest)	(2017 or latest)	(2018)	(2018 or latest)	(2019)
		49	23	26	3	25.3
2018	129	(2017 or latest)	(2017 or latest)	(2017)	(2017 or latest)	(2017 data)
		49	23	26	0	24.6
2017	139	(2016)	(2014 or latest)	(2016)	(2016)	(2015 data)
		21	11	23	0	14

Source : UNCTAD

Table 3: UNCTAD B2C E-commerce index, Comparison of Iraq to Other Countries in the Region, 2019

2019 Rank	Economy	Share of individuals using the Internet (2018 or latest)	Share of individuals with an account (15+, 2017)	Secure Internet servers (normalized, 2018)	UPU postal reliability score (2018 or latest)	2019 Index value	Index value change (2017-2018 data)	2018 Index rank	2017 Index rank
28	United Arab Emirates	98	88	65	84	83.8	-0.1	33	23
42	Iran	70	94	56	88	76.9	1.1	49	47
49	Saudi Arabia	93	72	47	81	73.3	-0.2	52	46
53	Turkey	71	69	73	74	71.8	-1.4	47	60
55	Kuwait	100	80	54	43	69.3	—	65	57
59	Oman	80	74	47	72	68.2	4.4	72	64
65	Bahrain	99	83	54	7	60.6	-5.2	61	33
68	Lebanon	78	45	48	67	59.4	-5.0	63	56
87	Jordan	67	42	43	44	49.2	-7.9	74	75
102	Egypt	47	33	35	43	39.4	-0.3	113	116
130	Sudan	31	15	18	38	25.6	-11.2	122	137
131	Iraq	49	23	26	3	25.3	-5.5	129	139
134	Syrian Arab Republic	34	23	30	0	21.9	-6.5	134	127
141	Yemen Arab Republic	27	6	17	27	19.2	-7	146	..

Source: UNCTAD

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[5] UPU

Neither the World Economic Forum (WEF) Networked Readiness Index[6] nor the International Telecommunication Union (ITU) ICT Development Index[7] has data for Iraq. Reasons for not including Iraq in these indices is the lack of systematic information provided by national bodies and the lack of a unified database that collects information on relevant indicators. When available, data are often not shared among public and private sector institutions. Having accurate statistics is important for developing data-driven and tracking progress over time.

1.2 National policies related to ICT, e-Government and e-commerce

Although the Government has drafted a number of national development plans and strategies, none of them address the cross-sectoral potential of e-commerce. Despite growing enthusiasm for e-commerce among key stakeholders, Iraq does not have a national e-commerce strategy or vision. The main public sector actors that would be involved in developing such a strategy are: Ministry of Trade (MoT); Ministry of Communications (MoC); Iraqi Post; the Communications and Media Commission (CMC); Central Bank of Iraq (CBI); E-Governance Coordination Committee (EGCC); Iraqi National Security Advisory (INSA); Ministry of Planning (MoP); Iraqi Customs (IC); High Institute for Telecommunications and Post (HITP); and the University of Information Technology and Communications (UOITC). The main private sector actors are: Iraqi National Business Council (INBC); Iraqi Association for Computer and Information Technology (IACIT); the Federation of the Iraqi Chambers of Commerce (FICC); Business Women Center (BWC); Iraqi Federation of Industries (IFI); and the National Committee on Trade and Transport Facilitation (NCTTF).

Although e-commerce is not explicitly included in national planning, there have been a number of initiatives by different national bodies that indirectly support the development of e-commerce in Iraq. Even in the early stages, these efforts reflect appreciation of the role of e-commerce in developing the Iraqi economy. These stand-alone efforts, however, have been developed in isolation from other efforts and create the risk of duplication. To successfully develop a vision for e-commerce development, an E-commerce National Task Force (ENTF) should be created under the Prime Minister Office, coordinating the development and implementation of an e-commerce strategy. The private sector should be linked to the discussions of the Task Force.

Initiative by the Post and Savings Public Company (Iraqi Post), Ministry of Communications

This initiative, reflected in a concept paper, shows a strong commitment to developing, activating and regulating the e-commerce sector in Iraq. It reflects an understanding of the significant challenges that exist for e-commerce development in Iraq. The Iraqi Post wants to build on its strategic partnership with Universal Postal Union (UPU) to develop an e-commerce platform available to Iraqi MSMEs and improve its readiness for e-commerce. In addition, Iraqi Post is deploying measures and mechanisms to enhance customer confidence in e-commerce – as one of the major challenges facing e-commerce – including ensuring customer's right of compensation in case of package loss or damage. Moreover, Iraqi Post is signing contracts with international companies to improve the efficiency and effectiveness of its services including the tracking systems, service centers, postal exchange warehouses, distribution centers, and electronic payment services.

Du3M Initiative

The Du3M 2025 Initiative for ICT development was launched by CMC in January 2019 to promote universal access to the Internet, e-Government, digital financial inclusion and the promotion of small- and medium-sized enterprises (SMEs). This initiative comprises 29 strategic projects aiming at increasing the development of the information society in Iraq. It is supported by the League of Arab States and the ITU[8]. The Du3M 2025 Initiative includes a component on e-commerce, which should be discussed and

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[6]   *World Economic Forum (WEF) Networked Readiness Index is a key indicator of how countries are doing in the digital world. It measures how well an economy is using information and communications technologies to boost competitiveness and well-being. https://www.weforum.org/agenda/2016/07/what-is-networked-readiness-and-why-does-it-matter/*

[7]   *The ICT Development Index (IDI) is a composite index that combines 11 indicators into one benchmark measure. It is used to monitor and compare developments in information and communication technology (ICT) between countries and over time. these 11 indicators are fixed-telephone subscriptions per 100 inhabitants, 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. https://www.itu.int/en/ITU-D/Statistics/Pages/stat/default.aspx*

[8]   *https://news.itu.int/secretary-general-houlin-zhao-visits-iraq-to-promote-ict-for-development/*

coordinated with the MoC, the MoT, the EGCC, and Customs.

The IT Department Vision developed by the Ministry of Science and Technology[9].

The Vision recognizes the need for a strategy to strengthen the role of the digital economy. E-commerce development is envisioned to contribute effectively to the economic development of Iraq and to lower the dependency of the Iraqi economy on oil prices. The Vision acknowledges the need to launch a national program to develop the capacity of national institutions to lead the development of the digital economy. It estimates that e-commerce development could create 200,000 job opportunities.

E-Governance Coordination Committee

The EGCC was established under the Government Coordination and Citizens Affairs Department in the General Secretariat for the Council of Ministers. EGCC is directly related to The Secretary-General of the Council of Ministers and is tasked with coordinating the national e-Governance in Iraq and governing the emerging e-services in the government.

The EGCC highlighted during their participation in the high-level dialogue that the committee has an initiative aimed at developing and supporting e-commerce in Iraq. However, no further information has been obtained about the initiative, its objectives and interventions.

1.3 National Policies and Plans

The strategic plans developed by the Iraqi governments include: The Reconstruction and Development Framework of Iraq, Iraq Vision 2030, Iraq's National Development Plan (NDP) 2018-2022, The Poverty Reduction Strategy (PRS) 2018-2022, and the Private Sector Development Strategy 2014-2030. While they do not directly address e-commerce, they establish clear policies on trade, government, services, and transportation that constitute an integral part of e-commerce development policies.

The National Development Plan (NDP) 2018-2022

The NDP intention to *"Establish the foundations of an effective development state with social responsibility"*[10] *as well as its developmental philosophy "….to reach the optimal employment of oil revenues towards building a base for economic diversification"*, lay down its strategic objective and approach. Although the plan does not explicitly mention e-commerce, the enabling factors for e-commerce were addressed.

In terms of trade policy, the NDP aims to increase local production commodity exports in addition to coordinating overall economic policies; the right economic policy environment is a prerequisite for the development of e-commerce. Regarding good governance, the Plan focuses on improving public administration processes and adopting an electronic governance system, which adapts and moves toward the digital space. Furthermore, the objective of activating the private sector and creating an enabling business and investment environment will allow the Iraqi private sector to take its leading role in the advancement of e-commerce.

The Plan's goals regarding the telecommunications sector include: meeting demand with competitive quality and prices; keeping pace with the global development of the sector; and providing a safe communication environment. These are crucially important for enabling e-commerce in Iraq where access to the Internet is still somewhat lagging and where online safety and security are a major concern to both customers and companies. Finally, the NDP addresses all the improvements that need to be made in the transportation sector, to allow for the efficient and safe mobility of goods to be traded online.

Iraq Reconstruction and Investment[11]

The **Reconstruction and Development Framework** (RDF) 2018-2027, prepared by the World Bank Group along with the Iraqi Ministry of Planning, presents a structured framework on how to rebuild what was lost in conflict, in line with the needs of a modern economy. It shows the Government's commitment to move from humanitarian assistance and stabilization to recovery,

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[9] *The Ministry of Science and Technology has been merged with the Ministry of Higher Education and Scientific Research to form the Ministry of Higher Education, Scientific Research, Science and Technology.*

[10] *Iraq's National Development Plan (NDP) 2018-2022*

[11] *Iraq Reconstruction and Investment plan consists of three parts: Reconstruction and Development Framework (RDF); Damage and Needs Assessment (DNA); and Investment Opportunities and Reform. The Plan was prepared by the World Bank Group (WBG) along with the Iraqi Ministry of Planning (MoP).*

reconstruction and development for the population affected by the crisis. The Framework fits squarely within the articulation of the country's Vision 2030 and Iraq's NDP 2018-2022 and is closely aligned to the Government's Poverty Reduction Strategy (PRS) 2018-2022 and its broader reform efforts[12].

Based on the findings of the Damage and Needs Assessment (DNA) plus other assessments and strategies (including the national investment plan), the Government has proposed the RDF. It addresses the key recovery short-, medium-, and long-term needs and priorities in a coherent and prioritized manner according to five key recovery pillars: 1) Governance; 2) National reconciliation and peacebuilding; 3) Social and human development; 4) Infrastructure; and 5) Economic development. The pillars most closely related to e-commerce are infrastructure and economic development.

The Government primarily aims to rehabilitate and reconstruct damaged or destroyed infrastructure that is critical for adequate service provision and an indispensable part of a business environment conducive to the development of e-commerce. Under the fifth pillar, the Iraqi Government commits to stimulating national and local economic activity in non-

oil sectors, enabling and facilitating investments, and establishing mobile payment networks, which are all needed for the further expansion in the e-commerce sector.

1.4 E-Government services

Iraq does not have a reliable, complete e-Government system and infrastructure[13]. In 2014, an Iraqi e-Government portal was launched with services including health, e-learning, municipal services, and electronic personal data. However, the objective is to have e-Government service that can accommodate the functionalities offered by the new technologies. As stated in the Reconstruction and Development Framework, establishing an e-Government, e-procurement, plus complaint mechanisms and processes is a long-term priority[14].

Currently Iraq ranks 155 out of the 193 countries included in the e-Government Development Index (EGDI) 2018[15,16], reflecting a drop in position from the 2016 ranking (141). In 2018, Iraq was also ranked 140 of 193 economies in the E-Participation Index (EPI)[17], reflecting a drop in position from the 2016 ranking (104).

Figure 4: E-Government Development Index and E-Participation Index, 2018
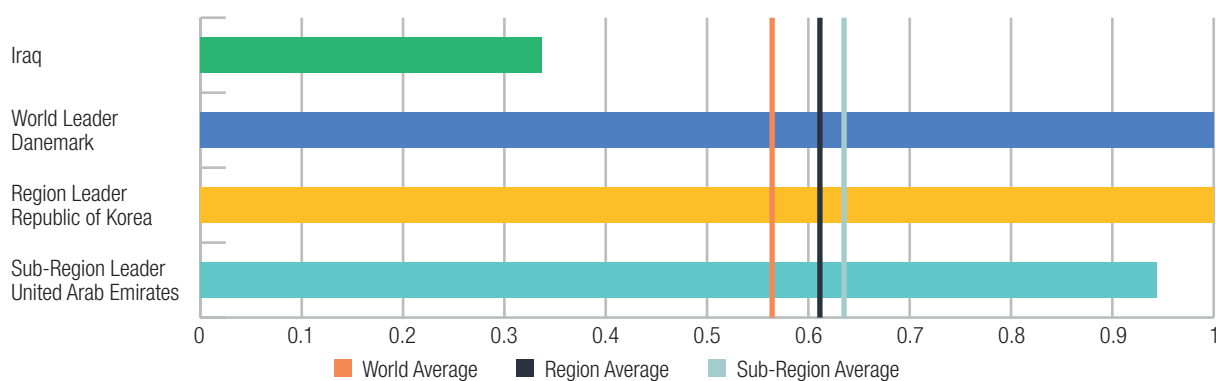
EPART Rank	2020	2018	2016	2014	2012	2010
Iraq	158	140	104	152	101	135

Source: UN E-Government Knowledgebase, https://publicadministration.un.org/egovkb/en-us/Data/Country-Information/id/80-Iraq

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[12] *The Plan was prepared by the World Bank Group (WBG) along with the Iraqi Ministry of Planning (MoP).*

[13] *Indian Journal of Science and Technology, Review on Challenges in Building Knowledge-based Societies through E-Governance Framework: Technology and Management Issues from Global Perspective, Vol 10 (28), July 2017*

[14] *Iraq Reconstruction and Development Framework, p24*

[15] *United Nations E-Government Survey 2018, Gearing E-Government to Support Transformation Towards Sustainable and Resilient Societies. https://publicadministration. un.org/egovkb/en-us/Reports/UN-E-Government-Survey-2018.*

[16] *EGDI is a composite measure of three dimensions of e-Government, namely: provision of online services; telecommunication connectivity; and human capacity.*

[17] *The e-participation index (EPI) is derived as a supplementary index to the UN E-Government Survey. It extends the dimension of the Survey by focusing on the use of online services to facilitate provision of information by governments to citizens ("e-information sharing"), interaction with stakeholders ("e-consultation"), and engagement in decision-making processes ("e-decision-making").*

With support from UNCTAD, Iraq is implementing an e-Regulation system, which has led to some significant improvements. This e-Regulation system has reduced the number of steps for registering a company from 35 to 14 and the requirements from 47 to 21. Similarly, the number of steps for registering as an individual entrepreneur were cut down from 21 to 5 and requirements from 33 to 10, without changing the existing laws and regulations.

1.5 National e-commerce coordination mechanisms

Currently, no public-private coordination mechanism or platform exists for e-commerce development in Iraq. Such a coordination mechanism would help institutions identify key e-commerce challenges and opportunities, create partnership opportunities and provide a knowledge-base for developing effective strategies and interventions.

The high-level dialogue on e-commerce and the digital economy organized on 28 July 2019 in Baghdad and attended by high level representatives of the MoT,

MoC, the Iraqi Post, CMC, and Iraqi Customs among others, as part of the in-country consultations for UNCTAD's eTrade Readiness Assessment, was the first of its kind in Iraq. Nearly 100 stakeholders from Iraq's public and private sectors exchanged views on how to overcome the challenges that hinder further development of e-commerce in the country. The lack of systemic inter-ministerial collaboration at the intersection of commerce and the digital economy was highlighted as one of the key challenges impeding policymaking not only for e-commerce specifically, but also for the ICT sector and digital economy in general.

Stakeholders who met during the in-country consultations stressed existing and potential conflicts or overlaps that this lack of coordination create. Although it was recognized that solving these issues would require higher-level political intervention, many efforts could be made at the technical level to improve coordination and integration among stakeholders.

While there is strong desire by different stakeholders to coordinate on e-commerce development initiatives, appropriate mechanisms and structure are missing.

Box 2: The e-Regulations System in Iraq

Under the auspices of the Council of Ministers of Iraq (COMSEC) and due to a financial contribution from the U.S. State Department, UNCTAD is implementing the e-regulations system in Iraq.

Clarification and transparency of procedures

E-Regulations is an online content management system allowing government agencies to present administrative procedures step by step from the user's point of view. Currently 16 procedures are documented in English and Arabic, accessible at: https://baghdad.eregulations.org/ (ENG) and https://baghdad.eregulations.org/?l=ar&reg=0 (AR).

Each procedure is broken into steps, and for each step detailed information shows where to go, whom to see, what documents to provide, how much to pay, the legal basis justifying the step, and the ways to report misconduct. An example is accessible at: https://baghdad.eregulations.org/procedure/62/step/429?l=en&reg=0.

Simplification

As a result of the clarification of the procedures for registering a company in the Baghdad e-Regulations portal and after seeing the complexity of the process, the Ministry of Trade (MoT), the Federation of the Iraqi Chambers of Commerce (FICC), and the Baghdad Chamber of Commerce (BCC) reduced the number of steps from 35 to 14 and the number of requirements from 47 to 21. You can see this at: https://baghdad.eregulations.org/procedure/62?l=en&reg=0. Similarly, the number of steps for registering as an individual entrepreneur were cut down from 21 to 5 and the number of requirements from 33 to 10. You can see this at: https://baghdad.eregulations.org/procedure/54?l=en.

All above-mentioned simplifications have been implemented without changing the existing laws and regulations.

Automation

After the simplification of procedures in early 2019, the MoT, FICC, and BCC decided to create an online platform offering joint services for the registration of companies on the basis of UNCTAD's eRegistration system. The system is under development in coordination with COMSEC's eGovernment Committee and is expected to go live in the first half of 2020. A prototype is available at: https://baghdad.eregistrations.org/.

Source: UNCTAD

The MoT, the MoC, the Iraqi Post, the CMC, CBI, and EGCC are the main public sector stakeholders with plans and initiatives to develop e-commerce in Iraq. Among private sector institutions, the Iraqi Association for Computer and Information Technology (IACIT) and the Iraqi National Business Council (INBC) are offering to coordinate with partners on e-commerce initiatives including capacity-building programs.

In order to improve government coordination on e-commerce and the digital economy, the Prime Minister's Office - through the proposed e-commerce National Task Force - should lead national coordination.

The MoT, the MoC and the Iraqi Post have common interests and mutual understanding of the need to bring all key stakeholders into one coordinated platform to effectively develop e-commerce in the country. Immediately after the fact-finding mission, the MoT initiated an effort to form a working group to discuss an e-commerce strategy and to study the requirements of applying e-commerce (G2B) to the Ministries' procurement process.

The specialized working group, led by the MoT, should comprise all relevant departments within the Ministry as well as representatives from the public and private sectors. The IACIT and the INBC are highly interested in being part of such national coordination working groups. The CMC, the MoC, the Iraqi Post, the CBI, the EGCC, MoP, and Iraqi Customs should also become key members of the working group. The main objective of the working group will be to prepare the guidelines and the strategic approach for developing an e-commerce strategy for Iraq, and to prepare some terms of reference for establishing an e-commerce National Task Force for Iraq. The e-commerce National Task Force should be formulated by the cabinet and should be under the purview of the Prime Minister Office.

Based on the discussions held in Baghdad, priority actions for this working group could include:

– Establishing high-level coordination across Ministries, including between the MoC and the CMC, to decide on points of intersection and overlaps, and defining a roadmap for an integrated approach to reaching the country's strategic interests and objectives;

– Ensuring high-level coordination between the MoC, the Iraqi Post and Iraqi Customs,

to explore trade facilitation challenges and mitigation measures with clear milestones and timeline;

– Establishing a coordination mechanism that includes the Ministry of Higher Education, the Ministry of Trade, and the University of Information Technology and Communications (UOITC) to discuss mainstreaming e-commerce within the educational system;

– Coordinating e-commerce activities planned under the Du3M Initiative;

– Coordinating planning with the EGCC to discuss their work on e-commerce initiatives as highlighted during the consultation meetings;

– Highlighting actions coming out of this assessment that could be followed up by the Iraqi National Transport and Trade Facilitation Committee in ESCWA, the EGCC, the WTO task forces, and others; and

– Ensuring effective participation of private sector and academia actors, especially the women entrepreneurs' representative bodies, particularly BWC.

Recommendations for developing an Iraqi e-commerce strategy

Results of this assessment could be a starting point towards developing a national e-commerce strategy in Iraq. Priorities should include:

– Setting an e-commerce strategy in which the private sector is a major and active partner in the near future, and pave the way to develop an export strategy;

– Addressing the gap of the legal and regulatory framework for the ICT law, IPR law, consumer protection law, cybersecurity, privacy, electronic transactions, electronic signature law, as well as the laws related to the Iraqi Post such as the Iraqi Postal Law No. (97) of 1973, taking into consideration the UPU Agreement ratified by IRAQ, payment law, e-payment law for the purpose of meeting consumer's needs, avoid duplications and intersection between institutions, and strengthen the competitiveness of promising and emerging sectors and promoting national and international trade;

– Increasing the confidence of merchants in accepting electronic payments through dedicated awareness raising programs, with a special focus on MSMEs, in addition to increasing national awareness of e-commerce through dedicated outreach and awareness-raising programmes and create trust among users;

– Implementing a rapid plan for the purpose of expanding population usage of Internet services and reduce its costs significantly;

– Ensuring larger segments of the population outside urban areas have access to fast, reliable (3G and then 4G/LTE) Internet access through mobile phones;

– Encouraging and providing an enabling environment to MSME's and companies in general and build clients' confidence as well as providing efficient and trustworthy payment systems and logistics solutions;

– Acquiring deep understanding of local, regional, and international markets for both consumers and entrepreneurs;

– Facilitating the integration of key governmental services and developing communication and cooperation mechanisms among public and private sector institutions;

– Setting a mechanism for enhancing cooperation and coordination between BPC, Customs, Iraqi Post and freight forwarders to facilitate the movement and access of goods in reduced time and cost; and

– Establishing mechanisms to coordinate and disseminate related information and statistics on e-commerce. Once finalized, the preliminary survey results conducted by CMC in coordination with Ministry of Planning-Central Organization for Statistics on the use of ICT and e-commerce by households and individuals could be used as the baseline for e-commerce strategy.

Figure 5: eTrade Readiness Survey for Iraq: Key Actions to Enhance E-commerce

Survey question: Please select three key actions from the list below that you believe could enhance e-commerce in your country (private sector, 33 responses)

Action	Percentage
Develop e-commerce related laws (e-transactions, consumer protection as priorities) to include most recent e-commerce development	~63%
Develop a national strategy or development plan for e-commerce development	~43%
Accelerate plans to enable interbank money transfers and payments both at national and international levels	~37%
Carry out a regulatory gap analysis on e-commerce in order to assess needs to update and/or upgrade e-commerce related laws (e-transactions, consumer protection as priorities) to include most recent e-commerce development	~30%
Ensure higher segments of population outside urban areas have access to fast, reliable (3G and then 4G/LTE) Internet access through mobile phones	~30%
Support the development of a physical address and postal code system and increase "findability"	~30%
Accelerate deployment of electronic document management system by ministries, following initiative by the other ministries (e.g. Ministry of Finance)	~28%
Increase confidence of merchants to accept electronic payments, through dedicated awareness raising programmes, moving from a cost approach to an investment approach, with a special focus on MSMEs	~28%
Provide political risk insurance and export-import guarantee funds	~28%
Availability of venture capital as equity based financing for startups to launch new e-commerce startups?	~28%
Provide incentive to promote investments in e-commerce	~24%
Develop Postal Services to support small parcels for cross-border e-commerce, including the adoption of a self-declaration scheme for customs duties, and easy–export / easy-import through the Postal Services that targets MSMEs across the country, including rural areas	~18%
Provide developmental projects for e-commerce	~18%
Formalize inter-ministerial discussions on e-commerce into a proper task force or committee, involving all relevant Government agencies	~18%
Enhance dialogue with leading domestic and foreign chambers of commerce and business associations dedicated committees	~15%
Assess current e-commerce and ICT skill gaps to accelerate the development of ICT related curricula in line with e-commerce industry's needs	~12%

Source: UNCTAD

2. ICT INFRASTRUCTURE AND SERVICES

> ICT infrastructure that delivers reliable, high-speed and affordable Internet can help stimulate e-commerce development and growth of the digital economy. A robust ICT sector can also contribute to GDP and sustainable development. Accordingly, it should be given high priority in reconstruction efforts. Figures for the share of individuals using the Internet more than doubled between 2016 and 2017 to 49.7 per cent. Growing mobile subscriptions, as well as fixed and mobile-broadband subscriptions, indicate a promising future for Iraq. However, more effective and meaningful coordination at the national level between the two key major stakeholders, the MoC and CMC, is needed.

2.1 Sectoral and institutional context

Much of the ICT infrastructure in Iraq has been damaged or destroyed by decades of conflict. The estimates of the cumulative damages created by the conflict and the needs in the ICT sector are respectively IQD 466 billion (US$ 400 million) and IQD 761 billion (US$ 644 million)[18]. Most of the mobile network assets were only partially damaged, while most of the fixed network facilities were completely destroyed.

Relaxing regulations to allow all operators to invest in infrastructure will be critical to rebuilding the mobile and fixed networks. Fixed networks will be particularly costly and complex since current networks and facilities are based on legacy networks. Public-private partnerships for the reconstruction of critical infrastructure will also be key.

The estimated cost of the damage to the power sector amounts to IQD 8.2 trillion (US$ 7 billion). As of 2017, most of the power system's assets were either partially functioning or not functioning at all. Rehabilitation work on the power sector is onGoIng, but public electricity, upon which the vast majority of all other services and especially the ICT sector rely, remains unreliable. The total cost of needs was estimated at IQD 10.8 trillion (US$ 9.1 billion) to fund the provision of adequate electricity supply and restoration of power system operations.

ICT sector management

Iraq does not currently have a comprehensive national strategy or vision for the ICT sector, and the policies and regulatory framework governing the sector is fragmented. The lack of telecommunications law and enabling regulatory framework for the telecom sector has prevented Iraq from keeping up with technological advancements, particularly in relation to broadband services[19]. The sector is regulated by the MoC and the CMC, which have overlapping authorities and responsibilities.

Iraq's profile on ITU ICT-Eye (latest data available: 2018)[20] indicates that the main policymaker in charge of telecommunications is the MoC, while the regulatory authority is CMC.

The mission of the MoC is "Providing telecommunications, Internet and postal services using the latest technology and high quality for all segments of society". The MoC is providing its service through three public companies: Informatics and Telecommunications Public Company (ITPC), Al Salam Public Company and Iraqi Post.

ITPC specializes in wired and wireless communications and has optical cable networks, microwave projects and many other transmission projects. ITPC provides international connectivity through land and submarine cable as well as through satellite communications plus Internet services. The State Company for Internet Services (SCIS) was established by the Iraqi MoC in 2000 to provide Internet services across Iraq. In 2018, it was merged with ITPC with the objective of increasing the efficiency in meeting customer needs. Al Salam Public Company specializes in providing security solutions for the ICT sector.

According to the Iraqi Constitution, CMC is an independent authority that does not associate with any other governmental entity and that aims at regulating and developing the media and telecommunications

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[18] *Iraq Reconstruction and Investment, Part 1*
[19] *Iraq Reconstruction and Investment, Part 2*
[20] *ITU ICT-Eye: http://www.itu.int/icteye*

sectors in Iraq in line with up-to-date international criteria.[21]

CMC's main responsibilities include:

- Regulating, broadcasting, and communications networks and services, including licensing, pricing, and interconnection, as well as identifying the basic conditions for the provision of public services;

- Planning, coordinating, distributing, and identifying the use of broadcasting frequencies;

- Regulating media designs and developing mechanisms for the press;

- Designing, developing, and promoting the rules of electronic media;

- Supporting and promoting vocational rehabilitation, and adopting professional conduct guidance on media topics; and

- Developing and disseminating communication and media policies along with proposing regulations on the Government and relative bodies in this regard.

During the in-country meetings with CMC, the UNCTAD team was informed that the Commission had recently launched a survey on e-commerce across consumers in the country. However, the results of the survey were not available at the time of this assessment preparation.

Current Iraqi legislation has singled out the CMC as the legal authority with the exclusive power to grant licenses and regulate communications, broadcasting, and information services inside Iraq. CMC is also exclusively authorized to manage the Iraqi country code top-level domain "iq".

Need for private sector to engage in developing the ICT infrastructure

During the in-country consultations, Iraqi public and private sector representatives highlighted the limitations of Iraq's fixed broadband Internet infrastructure, which continues to hold back the overall digital development of the country.

Iraq is one of the least advanced countries in terms of fibre-optic infrastructure. Accordingly, the MoC should revise its policies to allow private sector firms to build, own and operate fibre networks.

Another issue highlighted by participants in the workshops is the very high price of Internet access compared to other countries.

Thus, the MoC needs to continue revising the pricing and licensing strategy for the fibre network and Internet services in Iraq in order to continuously respond to the Iraqis demand for cheaper and affordable Internet services. Similarly, expediting the issuance of the MOC governing legislation in addition to the relevant Public Private Partnership legal frameworks will enable the private sector to invest in and develop the fibre infrastructure for the good of the economy and the well-being of the nation.

Need for higher coordination between the MoC and the CMC

ICT development is a key factor for maximizing the effectiveness of e-commerce's contribution to creating employment, diversifying trade and exports, alleviating poverty and providing a platform for women and youth social engagement.

Currently both the MoC and CMC have demonstrated strong commitment and mutual understanding for joint action to support the development and promotion of e-commerce. During the high-level dialogue in Baghdad, the Minister of Communication, H.E. Mr. Naeem Al-Rubaie, emphasized the need to adapt legal frameworks and legislation to regulate e-commerce and to protect the rights of online sellers and buyers.

The consultations conducted during the fact-finding mission showed that the two institutions need to bring their visions into a unified one, which calls for urgent work on establishing the proposed e-commerce national task force located under the PMO coupled with an e-commerce champion to facilitate this cooperation.

The main point of tension between the two organizations is the lack of law that defines clear mandates, roles and responsibilities of both MoC and CMC. The existing Telecommunications Law No. (159)

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[21] *CMC website: https://www.cmc.iq*

of 1980 is outdated and does not meet the needs of advanced technologies and the requirements of developmental needs. The Coalition Provisional Authority (CPA) Order No. (65) of 2004 that established CMC called for promulgating a comprehensive statement of Iraqi communications policy as CMC's first order of business. The failure of existing laws to organize the relations between the two parties (MoC being a policymaker and owner of the infrastructure, and CMC being the regulator) is a key factor in creating overlapping authorities and responsibilities of the MoC and CMC. This in turn could hinder the growth of the Iraqi ICT sector. A unified vision should be a starting point for developing a robust ICT sector.

In 2009 a draft law "Communications and Informatics Law" defining the responsibilities of both CMC and MoC was submitted by MoC for endorsement by the Iraqi Parliament but has not been ratified to date.

According to the feedback received from stakeholders during the in-country consultations, the draft law does not have the agreement of all relevant parties, thus there is no indication that it will be ratified soon. Establishing high-level coordination between the MoC and the CMC to decide on points of intersection and overlaps, as well as defining a roadmap for an integrated approach to reaching the country's strategic interests and objectives, is a priority for updating and ratifying this law. Creating such coordination and updating and ratifying this law should be a priority for the proposed e-commerce National Task Force.

2.2 Broadband/mobile/smartphone penetration

The telecommunications market in Iraq, especially in mobile services, is relatively competitive. Mobile penetration is around 95 per cent, with 36.47 million subscriptions (8.4 per cent of the total Arab States mobile subscriptions). However, there is considerable room for growth, especially in mobile broadband services.

Recent updates by ITU show that mobile-broadband subscriptions per 100 inhabitants stand at 39.8 per cent compared to 62.7 per cent in the Arab States. Fixed-broadband subscriptions per 100 inhabitants increased slightly from 2017 to 2018, standing at 11.69 per cent in 2018, up from 11.43 per cent in 2017. This rate is more than double the Arab States percentage for 2017 and 2018: 4.9 and 5.1 per cent respectively[22]. Another set of figures provided by MoC indicates that the fixed telephone subscriptions are still around 1 million, and the fixed (wired)-broadband subscriptions are only 34,681[23].

Table 4: Key Access to ICT Indicators								
ITU Statistics	**Iraq**						**Arab States**	
Indicator	**2004**	**2010**	**2014**	**2016**	**2017**	**2018**	**2017**	**2018**
Percentage of individuals using the Internet	1.00	2.50	13.20	21.23	49.36	--	48.70	54.70
Mobile-cellular telephone subscriptions per 100 inhabitants	34.05	78.22	95.90	91.36	88.98	94.88	101.90	103.10
Mobile-broadband subscriptions per 100 inhabitants	..	..	3.60	..	41.00	39.80	54.90	62.70
Fixed-telephone subscriptions per 100 inhabitants	4.54	5.79	5.66	5.55	8.62	7.04	7.90	7.70
Fixed-broadband subscriptions per 100 inhabitants	0	0.01	..	..	11.43	11.69	4.90	5.10

Source: ITU

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[22] *ITU statistics*
[23] *Iraqi Ministry of Communication*

2.3 Reliability, affordability, latency, speed, coverage

Mobile Market

Three mobile operators are active in Iraq, helping to bring near universal coverage to the country: Zain Iraq, Asiacell and Korek Telecom. Zain Iraq, an Iraq-Kuwait joint venture company, and Asiacell, a subsidiary of Qatar's Ooredoo, have the largest market shares, 36.7 per cent and 34.7 per cent, respectively[24].

Asiacell was the first Iraqi mobile telecom provider to achieve nationwide coverage and was a winner of the GSMA's "Outstanding Contribution to the Mobile Industry Award" for 2017. It offers 3.9G mobile data services. Korek Telecomm is an Iraqi company limited by shares. It was the first mobile services provider in Iraq, with operations since the year 2000. It has a market share of 28.6 per cent and nationwide coverage.

CMC has invited interested companies to submit proposals to run a fourth mobile phone service in the country in 2015, but no decision has been taken to date.

2.4 Major infrastructure projects (submarine cable, fibre optic, etc.)

Several infrastructure projects have been implemented by CMC and MoC through ITPC. CMC is currently implementing several projects related to wireless broadband and fourth-generation licenses and IPV6, in addition to the Du3M 2025 Initiative for ICT development, which is expected to have great impact on the ICT sector, including the Internet Exchange Points Project conducted in cooperation with the MoC.

Currently ITPC is implementing the Fibre to the Home (FTTH) and the wireless networks projects. This will improve last-mile connectivity and lead to more reliable Internet services. ITPC is also providing the required communication infrastructure to all national projects such as the unified national ID system of issuing passports and the E@government.

The National Project for Optical Transmission (DWDM + ASON) aims to provide optical transmission stations using Dense Wavelength Division Multiplexing (DWDM) and Automatically Switched Optical Network technology covering all Iraqi governorates, connected by the national optical cable network. The fourth phase of the project has started, with the aim of increasing the capacity to 380 GIGA. This project is essential for the operation of other projects like the International Internet Gateway project, the landline prepaid system, the public telephone project, and the FTTH project[25].

There is a growing appetite for investment in the telecommunications market in Iraq, which is one of the most dynamic private-sector-driven sectors. Developing synergies with the infrastructure in other sectors such as transport and energy might be a cost-effective way to further expand access to Internet services. The government could also foster the development of the market by encouraging more competition for telecommunications infrastructure as well as services, thus accelerating progress towards realizing the economic and social opportunities that will arise from the universal high-speed Internet[26].

Table 5: Comparison of Service Prices of the Three Mobile Operators in Iraq			
	Zain Iraq	**Asiacell**	**Korek Telecomm**
Local call to same operator	IQD 1-2 per second	IQD 2 per second	IQD 1.4 per second
Local call to other operators	IQD 2-3.9 per second	IQD 4 per second	IQD 2.1 per second
Local SMS to same operator	IQD 50 per message	IQD 50 per message	IQD 50 per message
Local SMS to other operators	IQD 60 per message	IQD 60 per message	IQD 50 per message
International call	IQD 295+ per second	IQD 350+ per second	IQD 295+ per minute
International SMS	IQD 150 per message	IQD 150 per message	IQD 150 per message

Sources: UNCTAD based on Zain Iraq, Asiacell, and Korek Telecomm websites

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[24] *Iraq Reconstruction and Investment, Development Needs Assessment*
[25] *http://www.itpc.gov.iq/index.php?name=Pages&op=page&pid=130*
[26] *World Bank, IRAQ SYSTEMATIC COUNTRY DIAGNOSTIC February 3, 2017*

The ICT sector can also play an important role in strengthening Iraq's connectivity and integration with other countries in the MENA region. Iraq enjoys a prime geopolitical location that makes it an ideal hub for international connectivity, particularly for the countries of the GCC region and for international traffic between the Middle East, Europe, and Asia. Transiting international traffic through Iraq would generate more Internet capacity for the country at competitive prices, create new business opportunities for domestic investors, and provide more jobs.

Considerable interest exists among domestic and foreign investors in making Iraq a regional hub for Internet traffic. For instance, there is the potential to expand fibre infrastructure from the submarine cable landing points in Al Faw to Turkey and Iran via Iraq. While at present the government has no strategy or vision for transforming Iraq into a regional hub for international connectivity, the unified vision between the key stakeholders should drive the following[27]:

- ICT sector strategy;
- ICT laws and regulations;
- Investment enabling environment within the ICT sector;

- PPP and PPD;
- Sector development financing mechanism; and
- Priority interventions that contribute to e-commerce development.

Within the Investment Climate Reform Action Plan[28], the top priority is to reduce the prices of Internet services for Iraq to become a hub of transit Internet traffic and to expedite the liberalization of competition within the optical fibre market to increase competitiveness and attract private sector investments. The plan indicated that this reform could be achieved under the existing legal framework.

Taking into consideration the unexploited potential of the ICT sector, the Iraqi government should give priority to updating the country's telecommunications law and providing an attractive PPP policy framework to strengthen the backbone infrastructure. Creating a conducive environment for e-commerce in Iraq will depend on the regulatory framework's ability to promote competition among private sector companies, which would lead to higher quality services and lower costs.

Figure 6: Importance of Factors for Creating a Conducive Environment

Survey question: Please rate the following areas according to their relative importance (based on your perspective) to create an environment that is conducive to e-commerce (private sector, 35 responses).

1. High usage of Internet
2. High usage of mobile telephony
3. High competition among telecom providers
4. High competition among Internet services providers
5. Low cost of Internet use
6. Internet network coverage in rural areas
7. Low cost of mobile telephony use
8. High usage of broadband
9. Mobile network coverage in rural areas
10. High investments in broadband deployment

- Very important
- Important
- Neutral
- Not important
- I don't know

Source: UNCTAD

[27] *World Bank, IRAQ SYSTEMATIC COUNTRY DIAGNOSTIC February 3, 2017*
[28] *Iraq Reconstruction and Investment, Part 3, Investment Opportunities and Reform*

3. TRADE LOGISTICS AND TRADE FACILITATION

Prolonged conflict has caused major damage to trade and logistics infrastructure in Iraq, which will require reconstruction. The Iraqi Post, a main actor in trade facilitation for e-commerce, has implemented numerous reforms and improvements in recent years in line with international standards, but further efforts are needed to optimize delivery and tracking services. The outdated procedures and tools used by the Iraqi Customs, as well as overlap and competition with the Borders and Crossings Commission are barriers to developing an enabling environment for e-commerce. Major improvements in e-regulations have taken place with support from UNCTAD. The Iraqi Post Initiative holds great potential as long as it is implemented in coordination with other stakeholders and international partners, especially UNCTAD and UPU.

3.1 Mode of delivery, last mile delivery

Conflict has caused serious damage to the vital trade infrastructure in place; therefore, reconstruction in the transportation sector should be an immediate priority.

In Iraq, the necessary trade infrastructure is in place due to revenue from the oil sector, but it needs improvement, especially in terms of express carriers and airport facilities. A total of 2,300 km of roads and one airport, among other things, were damaged by conflict. The lack of efficiency in customs and Border Ports Commission (BPC) procedures, combined with the lack of efficient transport services, have led to a significant increase in trading costs and time in Iraq, which are some of the highest globally. This has caused reluctance among investors to invest in e-commerce and in manufacturing sectors despite Iraq being in a vital corridor as the closest link between the East and the West. With the increasing demand among MSMEs to sell online, the Iraqi government needs to commit to exerting all needed efforts to develop policies and deploy measures to facilitate exporting and importing.

Iraq enjoys a privileged geo-strategic location but has not yet been able to take advantage of its position. Investments in transport and logistics are critical to altering this reality and to boosting domestic and foreign trade. Such investments would not only enhance integration internally, but also regionally between Iraq and its neighbors. Connecting Asia with Europe via a Basra rail link to Turkey is an example of the types of investments that are still needed.

The damage to Mosul Airport[29] is estimated at IQD 120 billion (US$ 102.9 million), and the damages to assessed railway systems are estimated to be IQD 236.6 billion (US$ 202.9 million). The total recovery and reconstruction needs are estimated at around IQD 4.7 trillion (US$ 4 billion), with IQD 1.4 trillion (US$ 1.2 billion) and IQD 3.3 trillion (US$ 2.8 billion) needed in the short and medium term, respectively. It is worth noting that, given the magnitude of the damages, reconstruction will take more than five years to fully restore service delivery to the pre-crisis level. Priority interventions should include improving the condition of transport assets and infrastructure by rehabilitating highly damaged segments of the country's roads, bridges, railways, and airports. Interventions should also aim at restoring the technical and institutional capacity to manage and maintain the transportation sub-sectors. The figure below shows the proposed projects in the transportation sector[30].

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[29] Iraq has 14 airports, six of which are international airports (Baghdad, Mosul, Basra, Erbil, Sulaymaniyah, and Najaf).

[30] Iraq Reconstruction and Development: Investment Opportunities and Reforms

Figure 7: Proposed Transportation Sector Projects

Transport Sector

TRANSPORT SECTOR - 23 PROJECTS
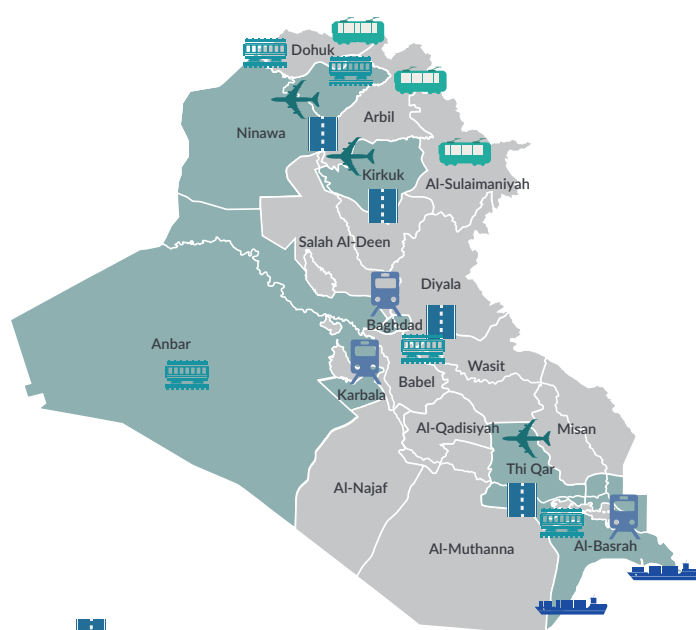
✈ AIRPORTS

Rehabilitation and development of Mosul International Airport
Rehabilitation and development of Nasiriya International Airport
Air Cargo logistic project (150,000 ton capacity) in Erbil

🚆 RAILWAYS

New railway line (Baghdad-Basra)
Rehabilitation of the existing line (Baghdad-Basra)
Construction of railway line (Musaib–Semawa)
Construction of Basra-Iran line
Construction of railway line (Baghdad-Mosul) and branch line (Baquba-Khanaqeen-Munthiriya-Iran)

🚋 TRAMWAY

Tramway project in Erbil
Tramway project in Sulaymaniyah
Tramway project in Duhok

⛴ PORTS

Grand Port of Al Faw
Al Faw Port Economic Zone

🚇 METRO

Baghdad Metro
Baghdad Mono Rail
Mono Rail in Holly Karbala Province
Basra Metro

🛣 HIGHWAYS

Rehabilitation and Development of the 580km Baghdad–Basra highway
Rehabilitation and Development of the 570km Baghdad-Mosul-Rabeea-Feshkhaboor highway
Rehabilitation and Development of the 180km Baghdad-Baquba-Iranian border (Al Munthiriya) highway
Construction of the 250km Baghdad-Kirkuk highway
Rehabilitation of the 25km Bismaya-Baghdad-Muhamed Al Qasim highway

Source: Iraq Reconstruction and Investment: Investment Opportunities and Reforms, February 2018

E-commerce companies operating in Iraq have resorted to using their own delivery services.

In addition to the Iraqi Post, many courier delivery firms operate in Iraq, like Parcel Force, FedEx, UPS, TNT, DHL Express, OCS, Sha Post, and Aramex, in addition to a few taxi companies including Careem. While Iraqi private sector companies are highly dependent on international express delivery services and self-operated delivery services, all main online shopping companies operating in Iraq have their own delivery services, which demonstrates the low level of trust in the postal delivery services, as shown in Figure 8.

According to the discussions during the in-country mission, Iraqi e-commerce companies are willing to collaborate with the Iraqi Post and Customs to speed up customs and delivery processes. In the absence of a reliable postal network meeting their e-commerce requirements, companies are investing in their own delivery services, which is not their preferred option.

Importantly, companies are seeking changes and are ready to invest in partnerships to meet consumers' expectations of cheap, traceable, and time-bound delivery, calling for the Iraqi Post to build its capacity to be able to meet such expectations.

Trade Facilitation Performance

Despite some significant improvements in the Iraqi Post Operational Readiness for E-commerce (ORE) performance in recent years, the necessary trade facilitation mechanisms for e-commerce are still not in place.

Iraq ranks poorly on trade across borders and starting a business regionally and globally.

On the World Bank Ease of Doing Business Index, Iraq ranks 181 on the Trading Across Borders indicator, which places it behind all the MENA countries and as one of the worst-performing countries in the world. The time and cost to export and import in Iraq are among the highest globally[31].

Figure 8: Preferred Vendors to Ship Products among Private Sector Companies

Survey question: Which vendor do you use to ship products? (Private Sector, 30 responses)
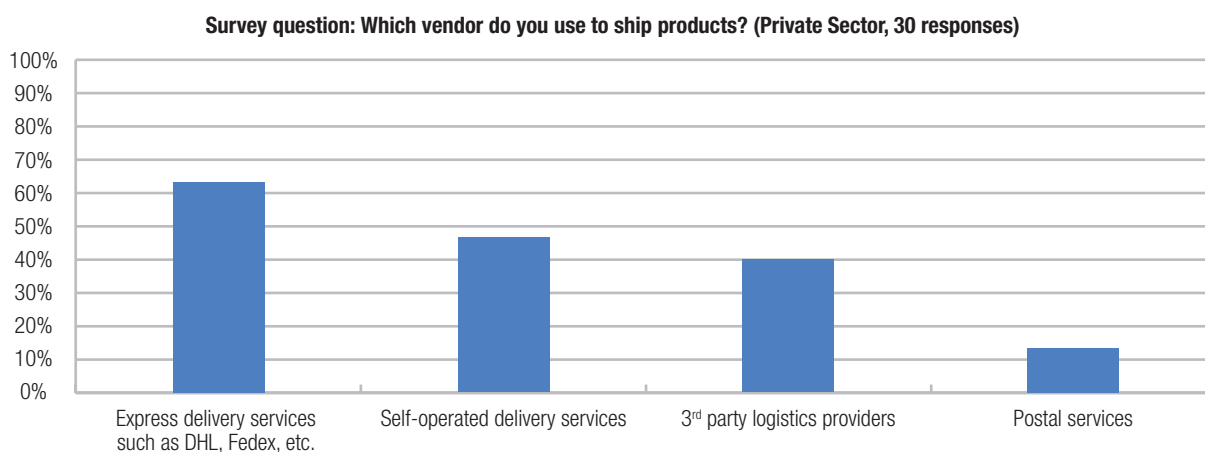
Source: UNCTAD

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[31] *World Bank: Doing Business 2019*

Postal services for e-commerce still require a lot of development efforts.

On the Integrated Index for Postal Development, 2IPD[32], Iraq is ranked as 157 out of 172 economies. Although this constitutes a slight improvement from the 2018 rank (164 out of 173 economies), Iraq is among the lowest 20 countries globally and far below the regional average.

The Iraqi Post, established in 1921, joined the Universal Postal Union (UPU) in 1929 and became one of the main founders of the Arab Postal Union. In 2018, the Iraqi Post became a public company under the name "Post and Savings Public Company" in compliance

with the provisions of the Iraqi Companies Law No. (22) of 1997. Under Iraqi Postal Law No. (97) of 1973, the Iraqi Post has exclusive power over all postal operations within Iraq, which makes the Iraqi Post the sole logistics operator for e-commerce services in Iraq. However, the Iraqi post has licensed few logistics operators and delivery companies. The Iraqi Post has 276 post offices in addition to 21 distribution centers.

The postal network, with its vast geographical coverage and multi-dimensional services, is well placed to support e-commerce, not only through logistical and transportation services, but also through the provision of electronic payment services.

Figure 9: Regional Ranking in Trading Across Borders

DB 2020 Trading Across Borders Score

0   100

84.1 Oman (Rank 64)
79.0 Jordan (Rank 75)
71.5: Qatar (Rank 101)
66.2: Iran, Islamic Rep. (Rank 123)
61.8: Regional Average (Middle East & North Africa)
25.3: Iraq (Rank 181)
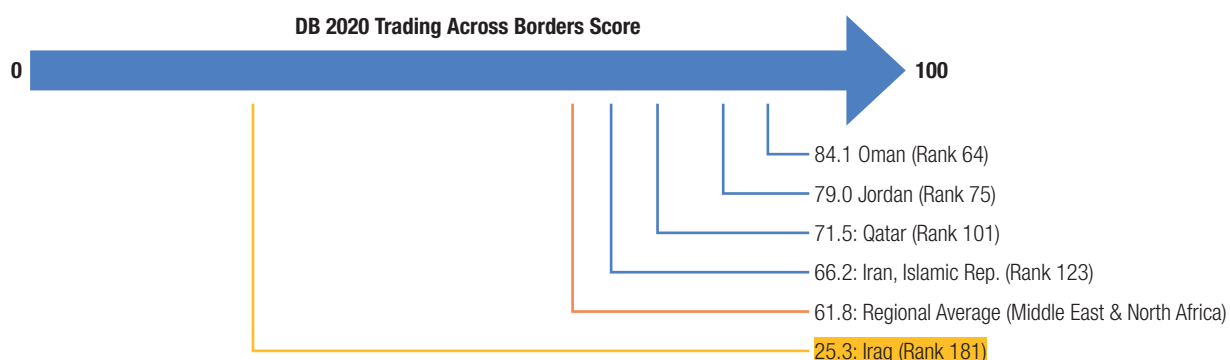
Trading across Borders - Iraq

Indicator	Iraq	Middle East & North Africa	OECD high income	Best Regulatory Performance
Time to export: Border compliance (hours)	85	52.5	12.7	1 (19 Economies)
Cost to export: Border compliance (USD)	1118	441.8	136.8	0 (19 Economies)
Time to export: Documentary compliance (hours)	504	66.4	2.3	1 (26 Economies)
Cost to export: Documentary compliance (USD)	1800	240.7	33.4	0 (20 Economies)
Time to import: Border compliance (hours)	131	94.2	8.5	1 (25 Economies)
Cost to import: Border compliance (USD)	644	512.5	98.1	0 (28 Economies)
Time to import: Documentary compliance (hours)	176	72.5	3.4	1 (30 Economies)
Cost to import: Documentary compliance (USD)	500	262.6	23.5	0 (30 Economies)

Source: WB Doing Business

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[32] *A composite index, the 2IPD measures the performance of countries across four key dimensions of postal development: reliability, reach, relevance and resilience.*

Iraqi Post readiness for e-commerce

The UPU has adopted a global integrated approach that focuses on the market and the customer in order to develop an intelligent postal network for cross-border e-commerce. The UPU has developed technical assistance projects to support Designated Operators (DOs) in three dimensions: 1) Operational Readiness for E-commerce (ORE), 2) Digital Readiness for e-commerce (DRE), and 3) Payment Readiness for e-commerce (PRE).

Table 6: Scope of the Three UPU Technical Assistance Projects	
	SCOPE
ORE	Modernize operational processes and use all available IT standardized tools and E2E systems to implement operational solutions that meet e-commerce requirements.
DRE	Enhance digital capabilities and use all available tools to implement digital solutions that meet e-commerce requirements.
PRE	Enhance payment capabilities and use all available tools and services to implement e-payment solutions that meet e-commerce requirements.

Source: UPU

In the context of this assessment, the UPU conducted a review of the Iraqi Post based on the information available at the UPU International Bureau and on responses to ORE, DRE and PRE questionnaires sent in preparation for the assessment. The key observations are detailed below.

2019 Operational Readiness for E-commerce (ORE) of the Iraqi Post

The implementation of the key strategic project on Operational Readiness for E-commerce (ORE) aims to address the UPU's objective of helping designated postal operators become significant players in the field of e-commerce. The ultimate aim is to ensure that e-retailers have access to the distribution infrastructure necessary to develop their activities. Implementation of the ORE project entails drawing up a roadmap and action plan for the postal operator of each country, coordinated by a national project team and setting out clearly defined objectives and implementation deadlines. The implementation of the actions planned for each country is regularly followed up at biannual training workshops and through expert

visits to conduct in-the-field assessments of the various processes in the postal logistics chain and relationships with the principal partners (air transport companies, customs authorities, security, etc.).

According to the ORE assessment, postal items are processed manually, and operational flows at the sorting center and Office of Exchange (OE) are inadequate. The exchange of data between the Iraqi Post, Customs, and airlines is not automated. There is no electronic data exchange for customs clearance and security control or for international transport documents.

There is no end-to-end mail visibility for letter mail in the absence of appropriate measurements using the Global Monitoring System (GMS). Employees and customers are not aware of the cut-off times for processing postal items, which should normally be displayed at post offices and online. Delivery delays are unknown and randomly communicated to customers. Nevertheless, considerable progress had been made in all five ORE key areas: minimum operational requirements; increased visibility; data quality; supply chain integration; and reliability.

The Iraqi Post is currently utilizing the IPS.POST version for the collection and processing of postal items. An X-ray machine is available at the OE for screening mail dispatches, and Customs are present at the OE for customs processing of postal items. Domestic end-to-end processes are under review for alignment with international standards.

Since 2018, the Iraqi Post has started capturing tracking information including the time of collection of parcels to the attempted/final delivery. The Iraqi Post does not, however, capture information relevant to the address and customs data when collecting/posting mail.

Another important component of electronic processes is the scanning of international parcels, which are accompanied, in most parts of the world, with a bar code to capture information rapidly and without human error. As per the UPU, in 2019 the Iraqi Post increased considerably its scanning usage rate in several postal processes. For instance, the visibility in inbound customs/security flows improved from 0 per cent in April 2019 to 93.44 per cent in September 2019.

With regard to supply chain integration, Iraq shows a considerable level of compliance with the UPU standards. However, the UPU highlights that agreements between Customs and airlines transferring postal items need to be reviewed in line with UPU–IATA/UPU–WCO guidelines.

For customs processing of postal items, the Iraqi Post uses the UPU compliant customs declaration forms (CN 22/CN 23/CN 23 EMS). Customs officials are present at the OEs to ensure the clearance of both imports and exports. Iraqi Customs requires that all items are presented to them, including non-dutiable items. Iraq has a contract with the Iraqi Airlines as its sole air shipper. The Iraqi Post also deals with Liban Post as a transit DO.

Nonetheless, the Iraqi Post's communication with Customs has not been automated yet. Therefore, it is important that the Iraqi Post installs the Customs Declaration System (CDS), which would enable the two parties to exchange CUSITM (CUStomsITeM) and CUSRSP (CUStomsReSPonse) messages.

Iraq has expressed willingness to develop electronic data interchange (EDI) with airlines using standardized messages such as CARDIT (CARrier Documents International Transport) and RESDIT (RESponse to Documents International Transport). The implementation of EDI systems by all UPU members will be obligatory starting in 2021.

While the end-to-end performance reliability in Iraq seems to be improving, it is still far from the UPU's standard. Reliability for inbound parcels has improved considerably from 76.5 elapsed days in October 2018 to 52.6 in September 2019. The outbound end-to-end performance reliability improved from 21.8 elapsed days in September 2018 to 17.5 in September 2019. However, this still exceeds the UPU's standard target of 8 elapsed days from end-to-end. One of the reasons behind this "in addition to the complicated customs procedures" could be that the Iraqi Post is not using the Internet-Based Inquiry System to handle international parcels.

Key ORE observations

A number of operational gaps were observed at the Air Mail Unit (AMU), OE, and across other processes along the postal value chain including:

- Non-compliant agreements with airlines as per UPU standards
- Low performance results related to Inbound Registered, Letters and Packets in 2018 and 2019
- Unavailability of systematic control over pick-up from post office branches (manual)
- Absence of documented pick-up schedule with clear timeframes for the pick-up and delivery of mail from/to post office branches
- No merchandise return process
- No control over delivery deadlines
- Lack of involvement of the Iraqi Post in customs-charged items, which might affect traceability and customer loyalty
- Lack of delivery information for items subject to customs charges, which might affect the visibility of mail and customer loyalty
- No clear cut-off times at Post Office levels
- Unavailability of fleet system on all vehicles
- Absence of Global Monitoring System – GMS E2E
- Manual processing of postal items

The UPU established a country roadmap and action plan for each of the five areas covered by the ORE project. Detailed activities are in the process of being implemented and/or planned to be implemented by year-end 2020.

Postal IT infrastructure and systems

The IT infrastructure of the Iraqi Post comprises several IT systems covering mainly postal mail using an in-house tracking system: IPS.POST, Global Track & Trace, POST*Net Mail, and QCS Mail. The Iraqi Post does not use IFS.POST (International Financial System), CDS.POST (Customs Declaration System), Electronic Consignment Security Declaration (eCSD), Merchandise Return Solution (MRS), UPU*Clearing, or Global Monitoring System.

2018 Digital Readiness for e-commerce (DRE) of the Iraqi Post

The Iraqi Post has already established a country project team with relevant contact details for all stakeholders

to follow the implementation of the recommendations of the Iraqi post action plan in this area. In terms of functional capabilities, however, there is an absence of coordination between the Post and other institutions for e-commerce development. Iraq lacks both a comprehensive digital strategy recognizing the support for e-commerce in Iraq and any definition of the role of the Iraqi Post in the digital economy and clear integration of services with other e-commerce stakeholders.

Moreover, the evaluation of the regulatory landscape for digital services supporting e-commerce has not been completed yet and cybersecurity tools for the protection of postal digital assets, data, and secure transactions online are absent.

2019 Payment Readiness for e-commerce (PRE) of the Iraqi Post

The UPU assessment of the Iraqi Post's Payment Readiness for e-commerce highlights many digital gaps and shortcomings including the absence of coordination between the Post and other institutions for e-commerce development, no provision of online services, and the need to develop a modern and up-to-date payment system.

While the Iraqi Post has already established an internal team dealing with payments (the country project team is not set up yet), and laws on governing data security standards in the payment card sector are in place, the role of the Post in the provision of payment services is not clear, and there is no comprehensive financial services strategy recognizing the support for e-commerce in Iraq. Moreover, the evaluation of the regulatory landscape for payment services supporting e-commerce has not been completed, and there is no integration of payment services with other e-commerce solutions and stakeholders.

3.2 Customs' challenges

The General Iraqi Commission for Customs (GICC) is under the authority of the Ministry of Finance. GICC has four regional Customs Directorates in addition to headquarters. The Kurdistan Regional Government (KRG) Customs Administration has been independent since 1990 and has been applying laws, rules, and regulations issued by the KRG government. The

Federal Government and the KRG have signed an agreement (Decision (13) of 2019) to unify and adopt the same tariff and customs procedures.

The GICC procedures are basic and manual. All cargoes are physically inspected, and a report is written on a copy of the declaration. The customs declaration and calculation of customs duties and taxes are done manually. Payments are made directly at Customs. The IT section is in charge of storing the information in a database and issuing documents summarizing the duties paid and the description of the goods. Finally, the head of the Customs office gives approval for the release of the goods.

GICC has no new IT system and is still using the software designed by CPA in 2003 to collect five per cent customs duties for Iraq's reconstruction. Occasionally the IT customs specialists make some improvements using Microsoft Access as the main tool.

Iraqi Customs' laws and regulations are not consistent with international best practices, recommendations and guidelines provided by the World Customs Organization (WCO), and there is no available information to allow a knowledge-based policy formulation. The fact that Iraqi Customs are not meeting the minimum trade facilitation standards such as the Revised Kyoto Convention (The International Convention on the Simplification and Harmonization of Customs Procedures), the Harmonized System Convention and other tools and instruments provided by WCO constitutes a major obstacle for Iraqi trade in general and e-commerce in particular.

The Logistics Performance Index (LPI)[33] ranks countries based on six dimensions of trade to help countries identify the challenges and opportunities they face in terms of trade logistics. Iraq is ranked 147 among 160 countries. The efficiency of customs and border management clearance, as well as the competence and quality of logistics services including trucking, forwarding, and customs brokerage, are among the lowest, ranked 153 and 159, respectively.

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[33] *https://lpi.worldbank.org/international/global*

Table 7: LPI Global Ranking, 2018

Country	LPI Rank	Customs	Infrastructure	International Shipments	Logistics Competence	Tracking and Tracing	Timeliness
Germany	1	1	1	4	1	2	3
United Arab Emirates	11	15	10	5	13	13	4
Turkey	47	58	33	53	51	42	44
Saudi Arabia	55	66	43	56	57	46	67
Kuwait	63	56	45	98	67	96	59
Iran, Islamic Rep.	64	71	63	79	62	85	60
Jordan	84	88	70	119	93	84	76
Syrian Arab Republic	138	154	82	126	124	128	148
Yemen, Rep.	140	104	131	141	131	146	151
Iraq	**147**	**153**	**140**	**131**	**159**	**144**	**129**
Afghanistan	160	158	158	152	158	159	153

Source: World Bank, https://lpi.worldbank.org

Figure 10: Digital and Sustainable Trade Facilitation

Digital and Sustainable Trade Facilitation (2019)
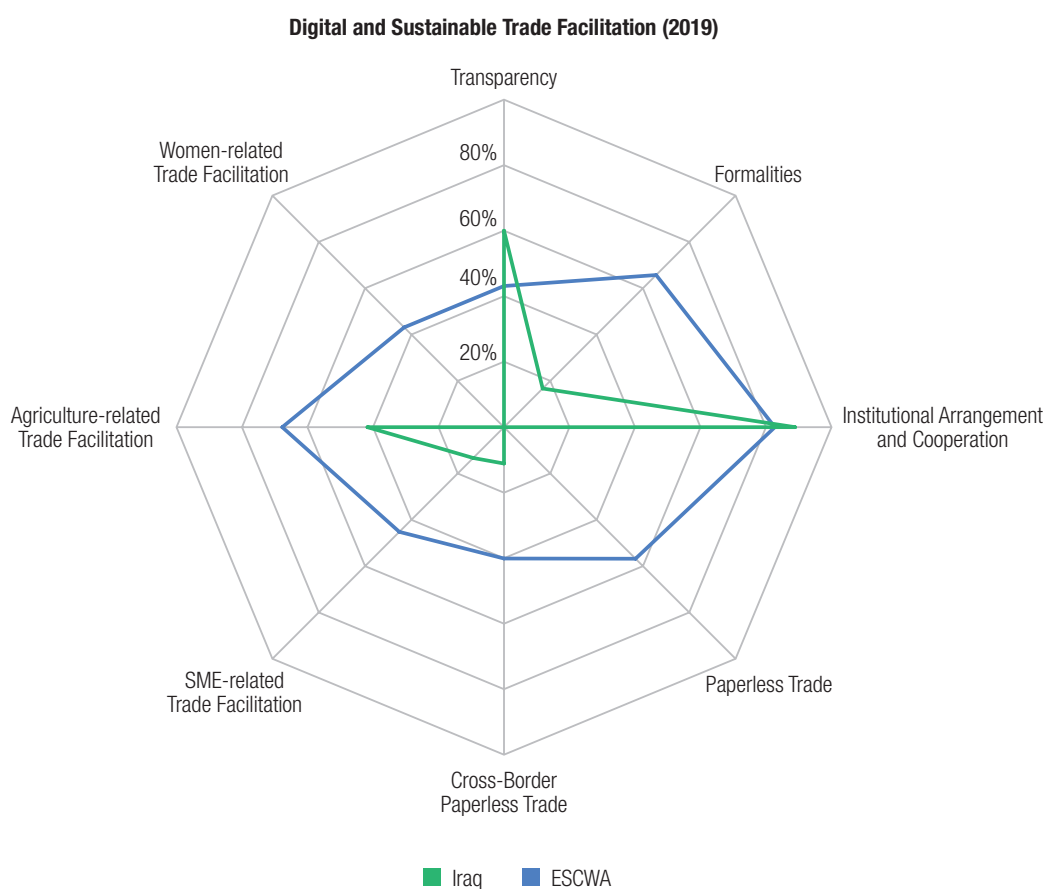
Source: UN Global Survey on Digital and Sustainable Trade Facilitation: UNTFSURVEY.ORG

According to the UN Global Survey on Digital and Sustainable Trade Facilitation[34], the trade facilitation score for Iraq stands at 24.73 per cent (2019), far below the ESCWA average of 59.86 per cent. Iraq scored zero for both Paperless Trade and Women Related Trade Facilitation, while the Cross-Border Paperless Trade score is 11.11 per cent.

The zero score is directly related to the non-implementation of all Paperless Trade requirements, including the Automated Customs System and Internet connection available at Customs and other trade control agencies, the Electronic Single Window System, the Electronic Submission of Customs declarations, the Electronic Application and Issuance of Import and Export Permit, the Electronic Submission of Sea Cargo Manifests, the Electronic Submission of Air Cargo Manifests, the Electronic Application and Issuance of Preferential Certificate of Origin, the E-Payment of Customs Duties and Fees, and the Electronic Application for Customs Refunds.

Similarly, except for the laws and regulations for electronic transactions, all other requirements for Cross-Border Paperless Trade, including the Recognised Certification Authority, the Electronic Exchange of Customs Declaration, the Electronic Exchange of Certificate of Origin, the Electronic Exchange of Sanitary & Phyto-Sanitary Certificate, and the Paperless Collection of Payment from a documentary letter of credit, have not been implemented.

Overlapping between Customs and the Border Ports Commission (BPC) further complicates trade facilitation. The Iraqi Customs (IC) are facing enormous challenges related to outdated infrastructure and IT system, lack of sufficient and qualified customs staff and, most importantly, corruption and interference from other agencies in Customs control, especially BPC. No clear roles and responsibilities exist for the IC and BPC. BPC's work is not restricted to monitoring and laying down appropriate infrastructure. A key finding of this assessment is that building the IC capacity based on international best practices is a significant requirement for trade facilitation of Iraqi trade, especially e-commerce. However, without parallel work on building the necessary infrastructure and capacity of BPC - including agreement on clear roles and responsibilities between the two parties - and achieving coordination and integration, the impact of any capacity-building attempts will be minimal. Discussions have started recently in an attempt to overcome such barriers. The very low rank in trading across borders for Iraq as well as the very high cost and time of export and import procedures could be largely attributed to the accumulated effect of lack of capacity and lack of coordination between the two parties.

Box 3: Customs Clearance System of Postal items

The current Iraqi customs procedures for clearing postal items are:

1. Inspection Committee (three officials);

2. Approvals of related authorities (Ministry of Health, Agriculture, or security entities);

3. General Company for Post and Telecommunications, providing post customs office of Alawy with a list of postal parcels distributed to other postal offices;

4. Collecting the customs duties in accordance to the Customs Law No. (23) of 1984 by filling a special form (customs duty declaration form) in three copies: the first one to be kept at the postal customs office, the second one to be sent to the Customs HQ Tariff Auditing Division, and the third one to be handed to the owner of the parcel;

5. The parcel is exempted from customs duties if: the weight of the material does not exceed 10 kg; its cost does not exceed IQD 10,000, and the item is imported one time for one person each, 90 days starting from the date of handing over the item to the owner;

6. The following fees are imposed in accordance with the Customs Law and related decisions:
   - Inspection fees: IQD 5,000;
   - Customs duty declaration form: IQD 5,000; and
   - Stamp fees in case of importing and exporting, in accordance with a formal list of the cost of stamping.

Source: GICC

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[34] *https://untfsurvey.org/economy?id=IRQ&year=2019*

The Customs Clearance System of Posts delivery items present additional challenges to the future of cross-border e-commerce. In Iraq, the postal parcels clearance procedure increases the delivery time significantly, and the cost of delivery is sometimes higher than the cost of the parcel. Such complications are reflected in the low number of parcels delivered to and from Iraq. While a total of 33,369 tons of goods were shipped via Iraqi and international airlines, the postal goods shipped by all airlines to Baghdad International Airport were only 23 tons in 2017. The number of international outward postal parcels in 2017 was only 2,663; more than two thirds of which went to Europe. At the same time, the number of international inward postal parcels was 14,525, the vast majority of which came from Europe and the US[35].

Several efforts have been made to date to build the capacity of the IC. USAID has offered technical assistance since 2004, suggesting eight software systems including ASYCUDA ++ and ASYCUDA World. In addition, General Iraqi Commission for Customs (GICC) was engaged in a reforming process with support from UNDP in 2014, which led to issuing a request for proposals in 2017 for investors, followed by an international call for tenders to rebuild infrastructure, modernize border posts, build an academy for training on customs basic procedures and law enforcements, and develop and implement an IT customs clearance system. Unfortunately, however, no clear progress has been made.

The Iraqi Post Initiative is an important step forward in providing comprehensive e-commerce solutions for Iraqi MSMEs. The Iraqi Post is well aware that e-commerce offers growth potential for the postal industry. The Post, supported by its international partners, especially the UPU, can play a key role in developing e-commerce by providing an enabling e-commerce environment for MSMEs after overcoming certain barriers identified within this assessment.

Box 4: ASYCUDA World – Customs Reform & Automation

An Automated Customs management system is the backbone of a modern customs administration. The application of ICT for accomplishing the mission of Customs has, among other benefits, faster cargo clearance (*). This is due, essentially, to improved accountability and traceability. As a side effect, increase in revenue is often noted. Customs automation is closely associated with the transparency, efficiency, and predictability of procedures, which are core components in the implementation of the WTO Agreement on Trade Facilitation. (**)

The GICC procedures are currently mostly manual, e.g., paper customs declarations, manual calculation of customs duties and taxes, with no electronic payments. These manual procedures are not suitable as international trade volume and complexity continue to increase. E-commerce, in particular, needs short release times that can only be achieved with simplified automated customs procedures. In a manual customs process, the cost of the "red tape" makes international e-commerce less attractive.

UNCTAD has developed Automated System for Customs Data (ASYCUDA) to help Customs administrations in their quest for modernization and automation. The application ASYCUDAWorld supports the entire clearance process: from lodging, acceptance, processing of cargo and goods declarations for import, export, and transit, payment of applicable duties and taxes, to release of the goods from Customs control.

ASYCUDAWorld is the most widely used customs data management system not only in the Arab countries but also globally, and some of Iraq's regional partners (Lebanon, Jordan, and Syria) are using it already. Each year, new countries join the ASYCUDAWorld family, such as Kazakhstan and Guyana in 2018.

With 101 countries around the world relying on ASYCUDA to support their respective customs clearance operations, ASYCUDA represents an opportunity for GICC. Experience shows significant improvement in revenue, transit control, and turnaround time following customs reform and automation with ASYCUDAWorld (e.g., recently in Kazakhstan). Implementing ASYCUDAWorld can also be an important catalyst for the development of e-commerce in Iraq. For more information on ASYCUDA, please consult https://asycuda.org/en/.

(*) see World Customs Organization: Kyoto Convention – General Annex – Chapter 7 Guidelines on Application of Information and Communication Technology http://www.wcoomd.org/-/media/wco/public/global/pdf/topics/wto-atf/dev/ict-guidlines.pdf?la=en.

(**) see World Customs Organization: Use of ICT in the implementations of the WTO-TFA http://www.wcoomd.org/-/media/wco/public/global/pdf/topics/wto-atf/use-of-ict-in-the-implementation-of-the-wto-tfa_en.pdf?db=web

Source: UNCTAD

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[35] *Central Statistical Organization Website (CSO). Accessed on 25/11/2019 :: http://cosit.gov.iq/documents/transportation*

Accordingly, the Iraqi Post has set objectives for improving its ability to attract customers who require access to simple, affordable, and reliable national and international postal services. These objectives include:

1. Upgrading the Iraqi Post with the latest technology and the best internationally recognized systems;

2. Providing affordable and reasonable prices with the introduction of demand-driven delivery models;

3. Focusing on the most important aspects and expectations of customers locally and internationally including delivery, control, reliability, return policy, and value-added features;

4. Increasing the Iraqi Post's performance through global strategic partnerships;

5. Building the capacity of the Iraqi Post's staff to be innovative in meeting customers' expectations;

6. Creating and promoting national awareness of e-commerce; and

7. Facilitating the integration of key governmental services and developing communication and cooperation mechanisms between public and private sector institutions.

In order to achieve these objectives, the Iraqi Post has set priority actions including:

- Formulating a concrete and clear e-commerce policy and strategy in cooperation with relevant governmental institutions and private sector actors;

- Supporting the development of an enabling environment with focus on MSMEs;

- Establishing an e-commerce platform accommodating the needs of MSMEs and customers;

- Developing electronic payment solutions;

- Establishing international partnerships; and

- Building the Iraqi Post's capacity.

The Iraqi Post has developed an ambitious initiative displayed in the numerous proposed objectives and interventions, but it lacks a concrete strategy that reflects a clear business model, a roadmap, specific milestones, timeframe, and indicators. A future Iraqi Post Strategy should map the evolution of the business model, gradual strategic approach and interventions, towards the creation of a trusted postal brand. This is a priority regardless of the chosen business model. The Iraqi Post should identify and evaluate the different business models of e-shop hosting providers and e-marketplaces. Some recommendations are provided in Table 8. The decision for IP to enter the hosting business segment must take into consideration the capacity of the Post to compete with established companies and their expertise in this field. Another option is to build partnerships with them, avoiding unnecessary competition with players that could actually become postal customers.

Even though priority should be given to establishing a strong local presence, the Iraqi Post should in parallel set its strategic approach to playing a key role in cross-border e-commerce. Cross-border e-commerce involves complexities such as customs clearance and multiple logistics providers, in addition to different laws, currencies, and languages. While there are many things that need to be implemented within the Iraqi Post, the main challenges and bottlenecks take place in other institutions including Customs and the Border Crossing Commission. Accordingly, the strategic approach should clearly identify the different scenarios under which the Iraqi Post can work in order to mitigate Non-Tariff Measures (NTMs), especially when it comes to export- and import-related measures.

The Iraqi Post should build on its strategic partnership with the UPU and consider the best practices provided by the UPU to its members. These include information, principles, and practical recommendations that can help posts in building their business models, systems, and services. Accordingly, deciding on the business model will facilitate the setting of a clear strategy and deploying the most appropriate strategic approaches.

In addition, the UPU assessment of the Iraqi Post's readiness for e-commerce in ORE, DRE and PRE highlighted the priority interventions for the Iraqi Post in order to develop the needed capacity for cross-border e-commerce.

	Table 8: UPU Recommended Priority Interventions for the Iraqi Post
	Priority Interventions

ORE	• Introduce end-to-end process mapping and quality standards
	• Implement the GMS E2E
	• Implement S42 standard
	• Implement CDS
	• Improve the routing and transport assignment tables
	• Improve the use of the UPU IT tools through the following activities:
	  – Deployment of IPS latest version;
	  – Deployment of CDS;
	  – Implementation of the Merchandise Returns Solution (MRS) in IPS, CDS, and UPU messaging standard EMSEVT to enable the cross-border return service;
	  – Optimization of the use of IT systems to improve the number of data capture actions necessary to process mail; and
	  – Extension of electronic data interchange with all partners (DOs, airlines, Customs).

DRE	• Define, draft, and align a digital strategy with broader public sector e-commerce agendas • Manage cyber risk • Adopt .POST • Develop internal digital skills to support e-commerce • Integrate postal services with stakeholders through the integration of UPU IT APIs for e-commerce tools
PRE	• Define and draft payment strategy • Review legal and regulatory frameworks that support e-commerce and provide recommendations, where applicable, to support Post's role in providing digital payments tailored for e-commerce purposes • Sign the Postal Payments Services Agreement (PPSA) as a first step to providing electronic payment services • Develop the postal business model for e-commerce payments • Study existing payment services and products and potential new services to be offered in connection with e-commerce payments, including the use of UPU IFS suite tools • Enter partnership with existing local providers

Source: UPU

The Iraqi National Committee on Trade and Transport Facilitation (NCTTF) needs to be strengthened and empowered. Because Iraq remains a WTO observer and is not yet a WTO member, it has not ratified the Trade Facilitation Agreement (TFA). Following the joint World Bank – WTO Workshop on the accession of Iraq to the WTO, which took place in Beirut on 25-26 July 2019, the WTO Secretariat, the World Bank, and the Government of Iraq were working towards organizing a High-Level Conference on the WTO Accession of Iraq, in Baghdad at the end of November, which had to be postponed due to the current protests in the country. The conference is intended to facilitate the formal reactivation of the accession process[36]. While Iraq has formed a national committee on WTO accession, no National Trade Facilitation Committee (NTFC) has been established. The formation of a NTFC is a priority commitment under the WTO TFA because it is the only measure that has to be

implemented immediately. Having a NTFC has been made a 'binding obligation' as per Art.23.2 of the TFA. This obligation must be implemented upon entry into force of the TFA. Each Member shall establish and/or maintain a national committee on trade facilitation or designate an existing mechanism to facilitate both domestic coordination and implementation of provisions of the TFA. The Agreement is silent about structure and governance, funding and sustainability, and membership and meeting frequency. All these have been left to discretion of Members. As per the feedback from MoT, instead of establishing a new National Trade Facilitation Committee (NTFC), stakeholders agreed that the "already established and functioning" Iraqi National Committee on Trade and Transport Facilitation in the ESCWA Region (NCTTF) will be used as a substitute for NTFC, although no clear reference has been made to an official designation on national level. The NCTTF objectives and mandate do not include any clear reference mandated to replace

[36] *https://www.wto.org/english/thewto_e/acc_e/nl_e/2019_05_acc_newsletter_e.pdf*

the NTFC, including its mandate. The mandate of the NCTTF should be amended and officially endorsed on national level; similarly, the public-private representation within the committee's relevant actors should be balanced too.

NCTTF could play an effective role in mitigating the trade facilitation challenge. Finding mechanisms to guarantee higher-level engagement regarding critical issues that cannot be solved by the NCTTF committee's members should be considered as soon as possible. Connecting the proposed e-commerce National Task Force to the NCTTF will be a priority and a step in the right direction. This will ensure that e-commerce facilitation priorities set by the ENTF are on top of the NCTTF agenda.

Box 5: NCTTF's Objectives and Priority Topics related to e-commerce

NCTTF was established in 2006 with a mandate covering all aspects of trade facilitation. This committee could also serve as a de facto NTFC by ensuring representation from all relevant agencies, a solution that is adopted by some WTO Member States. It is chaired by the Minister of Transport, with the Minister of Trade and the Minister of Finance as vice chairs. The Committee includes high-level representatives from the vast majority of trade and transport related public and private sectors stakeholders.

NCTTF's objectives include:

- Propose draft laws and regulations to facilitate transport and trade procedures;
- Provide recommendations to the Government regarding future investments in the transport, trade, communications sectors, and border crossing points;
- Encourage the computerization of procedures with the support of the ICT sector of all international trade and tourism documentation;
- Increase awareness about the benefits of facilitating transport and trade and the use of modern systems and international standards through conferences, seminars, and media; and
- Provide technical assistance and capacity-building to public and private transport and trade authorities with assistance from international organizations, companies, and international advisory centers.

The NCTTF's 2018 annual report shows a significant follow-up on many priority topics raised by stakeholders during the fact-finding mission including:

- Encouraging the computerization of procedures with the support of the ICT sector of all international trade and tourism documentation;
- Following up with the Ministry of Finance and the Customs Authority to expedite the implementation of the ASYCUDA system and the Customs Accompanying system;
- Enforcing the Consumer Protection Law No. (1) of 2010;
- Following up on the implementation of the Electronic Signature and Electronic Transaction Law;
- Unifying export and import procedures with the Kurdistan region;
- Forming a working group to discuss the possibility of unifying the examining authorities and the inspection mechanisms at ports and border ports and determining the decision-making body for issuing the final decision about the validity of entry and exit of goods; and
- Forming a working group to prepare the draft law of the International Trade Window as per Order No. (41) of 2016.

Source: NCTTF's 2018 Annual Report

4. PAYMENT SOLUTIONS

> Providing enhanced access to secure e-payment and cashless payment solutions is key to increasing trust in online commerce. Although cash transactions and cash-on-delivery are dominant in the Iraqi market, mobile payments are growing and there is a promising future for cashless solutions. Low banking literacy also limits the use of formal banking solutions. While figures show a continuous rise in the number of e-payment solutions, the main challenge of building consumers' trust in online transactions remains. Developing and launching awareness campaigns about e-payment solutions, including consumer protection issues, will increase trust and accelerate a shift away from cash-based transactions.

4.1 Banking penetration

Cash payments continue to dominate the Iraqi market because the e-payment ecosystem is still in an early development stage. Only 23 per cent of adult Iraqis have an account with a bank or another financial institution according to the Global Findex, 2017. While the country showed gains in financial inclusion, account ownership continues to lag behind other countries in the region. Only 15 per cent of the adult population made or received a digital payment in 2017; only six per cent own a debit card; and two per cent own a credit card.

Even those owning either an account or an electronic wallet may not be actively using them. Only 15 per cent of adult recipients of wages or salaries have them deposited directly into accounts. Iraqis using e-commerce services find cash-on-delivery to be the most convenient method of payment. This creates a negative feedback loop with respect to the acceptance of electronic payments. Because so few Iraqis have access to payment instruments such as credit and debit cards or mobile wallets, there is no incentive for merchants and traders to invest in infrastructure necessary to accept e-payments. Iraq has only 3,500

point-of-sale (POS) terminals[37], which translates into 15 terminals per 100,000 adults. Based on the statistics provided by the CBI (see Table 10), there are 1,811 POS terminals, which translates into eight terminals per 100,000 adults. By comparison, there are over 100 terminals per 100,000 adults in Egypt, nearly 200 in Palestine, and over 2,000 in most of the Gulf Cooperation Council (GCC) countries.

In addition to the low penetration of access points and low account ownership, the reliability of electronic access channels is a challenge. POS terminals, especially outside large cities, are often not operational due to electricity outages or network problems. The number of ATMs per capita is the lowest in the MENA region. There were only 3.95 ATMs per 100,000 adults[38], compared to 64 in the UAE and 73.8 in Saudi Arabia.

Compared to neighbouring countries, Iraq has a large number of financial institutions: 74 banks (with 874 branches) and thirteen licensed payment service providers (PSP)[39]. Most PSPs focus on providing payment processing and merchant-acquiring services to financial institutions; three firms offer mobile or electronic wallets to the general public.

Table 9: Growth Trend in e-payment Solutions in 2016-2018				
Indicator	**2016**	**2017**	**2018**	**Increase (2017-2018) (%)**
Number of Credit and Debit Cards (per 1,000 adults)	29.1	33.1	54.9	65.6
Number of ATMs (per 100,000 adults)	1.8	2.6	4.0	52.8
Number of POS, per (100, 000 adults)	5.3	4.6	8.1	75.3
Number of Mobile Wallets (per 1,000 adults)	3.4	5.3	8.15	53.8

Source: CBI[40]

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[37] *Based on presentation by Arab Payment Services Co. (APS)*

[38] *Source: WB, please see figures in the Access to Finance section*

[39] *Payment Service Providers (PSP) include Amwal, APS, Switch, National Gate, YANA, International Network, QI Card, TBI, and NassPay. In addition, there are three e-wallet PSPs: Zain Cash, Asia Hawaleh, and Nass Wallet*

[40] *Calculations were based on 22,696,150 adults.*

The large number of institutions active on the market should not, however, distract attention from their low capacity. Retail banking in Iraq is still to a large extent dominated by the two state-owned banks: Rasheed and Rafidain, whose digital transformation are yet to happen. Neither of them has implemented a modern core banking system, which means that digital access channels, such as online or mobile banking, are not supported.

The Central Bank of Iraq has established the real-time gross settlement system (RTGS) for large-value payments and the settlement of net positions of retail payment systems. All commercial banks are members of the system. However, since not all of them have implemented modern core banking systems, some banks process payment instructions through an RTGS web interface in a semi-manual mode and thus without straight-through processing. Despite the existence of the RTGS, large-value payments are still predominantly made with cheques.

The CBI also operates a number of retail payment systems. The Automated Clearing House (ACH) supports interbank cheque clearing and electronic credit transfers. Its separate module, known as the Inter-Branch Clearing System (IBCS), supports clearing of credit transfers between branches of (predominantly state-owned) banks that have not implemented core banking systems. In addition to that, the national switch (Retail Payment System Infrastructure—RPSI) processes domestic ATM and POS transactions, as well as P2P transfers between customers of two mobile wallet providers.

While participation in the RTGS and the ACH is nearly universal, only 30 banks have joined the national switch; this is connected to the fact that many banks in the country still do not issue cards or acquire merchants.

Most of the online purchases are paid by cash on delivery (CoD). Private sector companies investing in e-commerce consider access to e-payment and cashless payment solutions as the most important enabler for investments in e-commerce for both the local and international market.

The lack ofwidespread e-payment and cashless solutions is one of the main factors keeping MSMEs from investing in e-commerce. This is followed by the lack of legal and regulatory framework for e-commerce, investment incentives and political risk insurance, export guarantee, and secure transactions. Accordingly, a legal and regulatory framework that provides secure e-payment solutions supported by export guarantees, in addition to political risk insurance, is key to e-commerce development in Iraq.

Figure 11: Main Reasons to Invest in e-commerce Solutions in the Private Sector

Survey question: If you sell or have sold products/services locally, how important have been the following factors in your decision to invest in e-commerce solutions? (private sector, 36 responses)

Source: UNCTAD
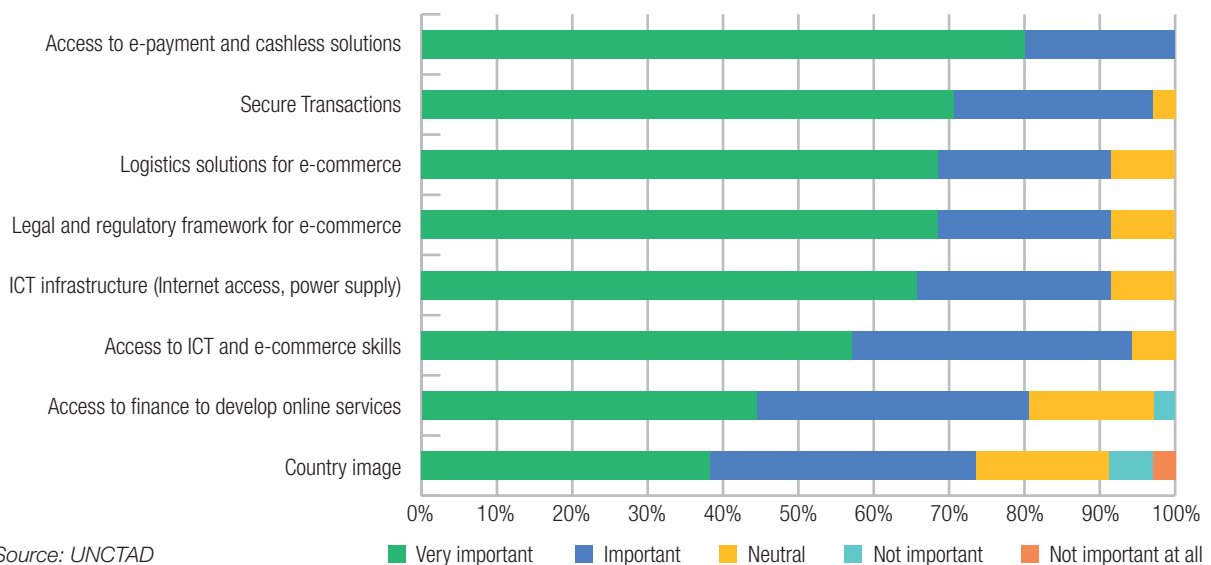
4.2 Digital payment: mobile payment and cashless payment solutions

Growth in digital payment will be driven by mobile payment solutions. The mobile wallets market is developing fast with a 54 per cent increase in 2017-2018. However, this represents only 1.2 per cent of mobile phone subscriptions and around three per cent of mobile broadband subscriptions[41]. Since mobile penetration is high and the number of individuals using the Internet and mobile broadband continues to expand, mobile payment solutions could be a main growth driver for e-commerce. Moreover, m-payments would also address the slow growth in bank account ownership and meet the needs of youth and marginalized groups, especially women.

As part of its efforts to strengthen financial inclusion, improve digital banking services, and provide ease of access to all segments in the Iraqi society, the CBI recently provided clear instructions to all licensed banks to introduce mobile application services (mobile banking) and to ensure the deployment of all needed security and privacy systems. Political instability is another critical issue to be considered because banks in many other countries do not provide customers access to their credit cards in Iraq unless they hold full responsibility and only for a specific period.

The three mobile payment solutions in Iraq provided by Zain Cash, Asia Hawala, and Nass Wallet offer several services including buying online and purchasing on iTunes.

The Zain Cash Mobile Wallet enables customers to make financial transactions easily at any time (cash-in/cash-out, money transfer from the wallet to another, recharge for a prepaid account, and bill payment for a post-paid account). It was launched in late 2015 by Zain and Iraq Wallet, a company authorized by the CBI, which specializes in financial services (cash deposit and withdrawal) and financial transactions through mobile phones (bill payment and money transfer).

Asia Hawala is a mobile wallet service launched by Asiacell in late 2015. Licensed by the CBI, the platform offers digital wallets, money transfers, bill payments, salary disbursements, and merchant payments services, in addition to providing standard and tailored financial solutions to small or large businesses and organizations with flexibility to support business growth. Asia Hawala provides three types of wallets:

- Lite Wallet with a threshold of IQD 100,000 for 60 days[42];
- Standard Wallet with a maximum capacity of IQD 20,000,000, and up to IQD 5,000,000 transactions per month, a maximum cash out of IQD 2,000,000 per day;
- Premium Wallet designed for companies, merchants, and agents with a threshold defined on a case-by-case basis.

Figure 12: Prevalence of Payment Systems in the Private Sector

Survey question: What is the current form of payment system that you offer to your customers? (private sector, 33 responses)
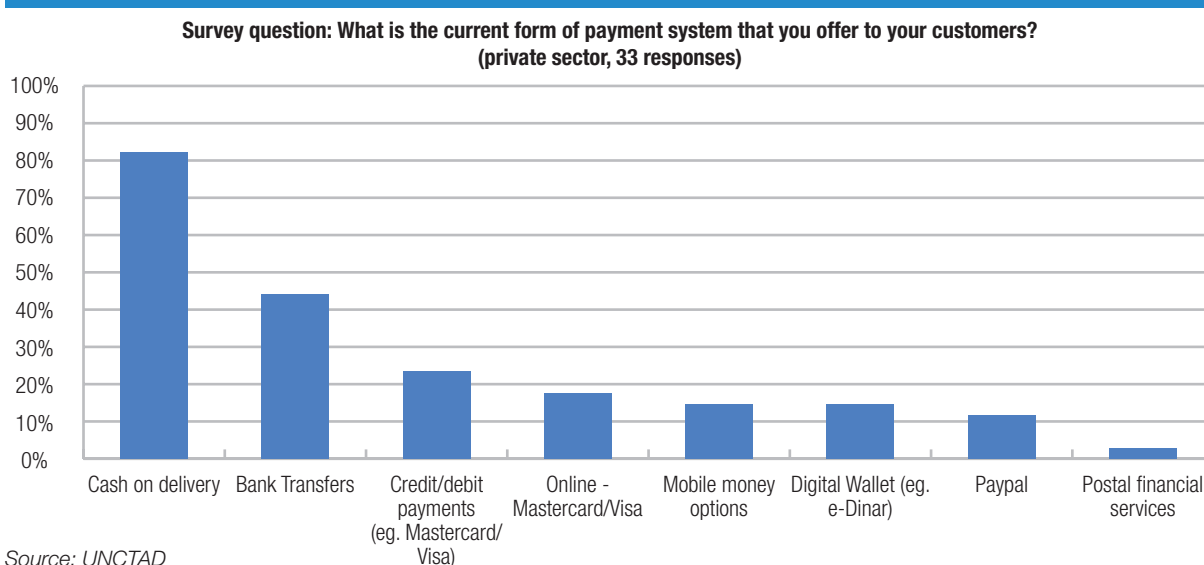
Source: UNCTAD

[41] CSO, Population for 2018 (38,124,182)
[42] http://www.asiahawala.iq/English/wallets.html

Founded in 2019 with headquarters in Erbil, NassWallet provides individuals, businesses and government institutions a digitalised way to make everyday spending and savings to disbursing salaries and incentive, receiving payments, sending money and paying bills easily and securely.

Trust is a key issue for e-payment service providers. Also reducing operating costs and enhancing ease-of-use for consumers will help the growth of such e-payments.

Although the wallet providers have been contributing to the financial inclusion of Iraqis, they have not managed to make significant progress so far in acquiring merchants, be it e-commerce companies or brick-and-mortar shops. Most mobile wallet transactions in the country are still cash-in, cash-out or person-to-person transfers.

The national switch supports interoperability with respect to P2P transactions; however, there is no equivalent arrangement for merchant transactions. Therefore, merchants would need to sign their own agreements with each of the providers. The potential of mobile wallets for receiving international remittances has also not been leveraged, since it is not authorized by CBI. While transfer from one wallet to another is permitted only locally in IQD, mobile wallets service providers have developed services to be used locally and internationally through linking the wallet to a bank account or a credit card.

4.3 Government payments

In addition to their regulatory role, government agencies have the potential to catalyze the digital payments market thanks to the large volume of payments they make (salaries, public procurement) and receive (taxes, fines, service fees of state-owned utilities). Unfortunately, this opportunity has not been fully seized in Iraq. The Central Bank of Iraq, together with the relevant line ministries, has been making significant progress with digitizing the delivery of salaries of civil servants. Through the "Salary Localization Project" launched by CBI, Iraqi civil servants have received debit cards and are receiving their salaries through ATMs. However, digitizing government receipts has not been equally successful.

Decentralization of government banking arrangements has been one of the challenges holding back digitization. Since each government agency and governorate decides upon their banking arrangements themselves, the government as a whole has not benefited from the ease of implementation and economies of scale that a unified approach to digitization could bring. The incomplete implementation of a Financial Management Information System (FMIS) has also been a barrier to end-to-end payments digitization.

A large number of businesses in Iraq do not report their full revenue figures to the government as this would entail paying higher taxes. Higher e-commerce activity, and digitization of a broad range of business activities including payments, would allow for more transparent monitoring of transactions and business revenues. Not only would this increase government tax revenue, it would also strengthen corporate governance, reduce corruption and increase competitiveness. Digitization of payments should be seen as a key part of Iraq's path towards developing stronger governance across the public and private sectors. The Government could consider offering tax incentives to private firms who begin digitizing their payments and operations.

4.4 International cooperation

Through its central bank, Iraq is an active member of the Arab Monetary Fund (AMF). The Arab Committee on Payment and Settlement Systems, convened by the AMF in 2004, has been planning to develop cross-border payment, clearing and settlement infrastructure named the Arab Regional Payments System (ARPS), which is designed to integrate national payment systems. Set to be up and running by 2020, the ARPS will have the opportunity to further reduce the barriers to regional trade[43].

4.5 Financial regulation (FSP, PSP, cashless, e-payment gateways)

The CBI was established as Iraq's independent central bank by the Central Bank of Iraq Law of March 6, 2004. The Bank is in charge of maintaining price stability, implementing monetary policy including exchange rate policies, managing foreign reserves, issuing and managing the currency, and regulating the banking sector to promote a competitive and stable financial system. In line with international standards

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[43] *https://www.centralbanking.com/central-banks/financial-stability/fmi/4126416/arab-regional-payment-system-set-for-2020-launch*

and technological development, the CBI has signed joint cooperation agreements with the World Bank, the International Monetary Fund (IMF), and the International Finance Corporation (IFC) to assess and develop the financial and banking sector in Iraq.

Led by the CBI, key laws and regulations support the evolution of the Iraqi financial sector.

- The Central Bank of Iraq Law No. (82) of 2017 is the second amendment of the Law of the Central Bank of Iraq, issued by the Order No. (56) of 2004 by the Coalition Provisional Authority.

- The Banking Law No. (94) of 2004 brings Iraq's legal framework for banking in line with international standards and seeks to promote confidence in the banking system by establishing a safe, sound, competitive, and accessible banking system.

- Regulation No. (3) of 2014 regarding the Electronic Payment Services of Money regulates all the electronic payment activities, including issuing electronic payment tools, managing deposits and cash withdrawals through ATMs and selling points, and implementing electronic payment processes.

Other relevant laws, regulations and initiatives include:

- The Securities Law of 2004

- Anti-Money Laundering and Counter-Terrorism Financing Law No. (39) of 2015

- Ordinance to Regulate the Operations of Small and Medium Enterprise Financing Companies No. (3) of 2010

- Instructions on Foreign Capital Flow for Purposes of Implementing the Investment Law in Iraq No. (13) for 2006 (amended)

- Instructions and Procedures issued by the CBI to organize banks' and payment service providers' activities in Iraq

- Supporting and developing the Islamic banking industry

- Supporting the establishment of a deposit guarantee institution

At the same time, in contrast to most other MENA countries, Iraq has yet to adopt comprehensive

payments legislation; the draft law on payments is awaiting adoption and implementation. Mid-2019, the CBI submitted the draft of the Iraqi Payments Law for endorsement by the legislature. The objectives of the law are to:

- establish and maintain secure and effective payment systems;

- provide effective monitoring tools;

- regulate the work of electronic payment systems and all its services, plus the work of any other payment system;

- facilitate transactions through approved electronic payment instruments;

- achieve the safety of payment systems to reduce any potential risks and fraud opportunities in electronic transfers; and

- protect the rights of all participating parties and determine their obligations.

In addition, Article 44 of the draft law replaces the Regulation No. (3) of 2014 regarding the Electronic Payment Services of Money.

Creating awareness of secure e-payments and guaranteed consumer protection can make a difference. The Iraqi public and private sectors, led by the CBI, should build on positive trends and continue to promote the adoption of mobile payments and other cashless solutions, emphasizing their benefits. Increasing digital financial literacy among consumers and MSMEs should be a critical part of any capacity-building and awareness-raising efforts.

The CBI should build on the existing capacity and increase the participation of MSMEs and civil society organizations in developing a regulatory environment needed to ensure secured payment solutions. Involving the private sector and civil society will help develop innovative solutions that are relevant to local consumers and businesses, including consumer protection e-payment laws and regulations.

Reliability of electronic payment channels should be monitored (potentially by the CBI) and underperforming banks and financial institutions should be induced to improve their performance. Mobile wallet providers should attain national and cross-border interoperability—not only for P2P transaction, but also for merchant payments and bank account-to wallet transfers. A national QR-code standard may be instrumental in boosting merchant acceptance.

The CBI and the government should also develop and implement a unified approach to electronic collection of taxes, customs duties and other person-to-government and business-to-government payments.

5. LEGAL AND REGULATORY FRAMEWORKS

At the moment, Iraq lacks the legal and regulatory framework necessary to support the growth of e-commerce. While Iraq has few laws and regulations in the area of e-commerce, they are incomplete and outdated and thus fail to serve the needs of e-commerce stakeholders. Developing the legal and regulatory framework necessary for creating a trusted environment for consumer protection, secure transactions and privacy was highlighted as the main priority for the Government during the in-country consultations. Overall, Iraq needs to review and harmonize e-commerce related legislations with support from international development partners such as UNCITRAL and UNCTAD. A comprehensive legal framework regulating the ICT sector in Iraq and investment incentives to encourage public-private partnerships and private investments would also help spur growth in the ICT sector.

5.1 e-transactions laws

While the drafting of the Electronic Signature and Electronic Transactions Act was a turning point in the digital era in Iraq, its provisions are unclear, and it has not been fully implemented. The Electronic Signature and Electronic Transactions Act was enacted in 2012. According to stakeholders who took part in the fact-finding mission, the law has not been implemented, its provisions are unclear, and there is a need to amend it in order to facilitate the growth of online transactions in Iraq. Current law governing e-commerce in Iraq is the one of the main obstacles for Iraqi consumers to engage in online transactions[44].

The law has gaps related to e-contracting, automated contract conclusion, electronic commercial and financial papers, and electronic fund transfers (EFT). Furthermore, the Electronic Signature and Electronic Transactions Law is known to be technology-specific[45] because it requires electronic messages to be signed with a PKI certificate – to be issued by the national certification authority – in order to be given legal recognition. This authority did not exist when the Act was passed, therefore all electronic transactions carried out in Iraq lack legal basis. On 11 March 2019, the Minister of Communications launched the Iraqi National PKI and received the CA root keys[46]. However, electronic transactions signed with the national PKI certificate are a small fraction of all electronic transactions exchanged daily. Therefore,

the vast majority of the electronic transactions does not have legal recognition according to the Electronic Signature and Electronic Transactions Law.

The relevant Iraqi authorities should work on reviewing the law, in particular taking into account SMEs' needs and international best practices. Since SMEs have limited capacity in e-commerce and e-transactions, they would benefit from technology-neutral laws that are easier to comply with. The consideration of the UNCITRAL instruments on e-commerce, including the United Nations Convention on the Use of Electronic Communications in International Contracts[47], could address the needs of Iraqi digital economy operators, especially SMEs. Adoption of internationally accepted standards based on technology neutrality would help promote legal certainty and harmonization as well as technical interoperability.

5.2 Consumer protection laws

In 2010, the Iraqi Parliament passed the Iraqi Consumer Protection Act No. 1. However, the Consumer Protection Council envisaged by this law has not been established yet, despite follow-up by the NCTTF. Understanding the reasons for the delays would help secure its establishment and build trust among e-commerce users.

Meanwhile, the Ministry of Industry, in cooperation with the MoT, is considering conducting a review of the Consumer Protection law in order to accommodate

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[44] https://www.researchgate.net/publication/320062951_The Legal Challenges of International Electronic Contracts in Iraq

[45] E-signatures are regulated depending upon how the signature is viewed: 1) a technology-neutral approach views all types of e-signatures and handwritten signatures as equal; 2) two-tiered regulations recognize the legality and validity of all types of electronic signatures but give higher evidentiary value to electronic signatures complying with certain requirements; and 3) prescriptive, technology-specific regulations only recognize limited types of e-signatures and mandates the use of specific technologies and methods. The Electronic Signature and Electronic Transactions Law belongs to the last group.

[46] https://www.vanrise.com.iq/en/news/launch-of-the-digital-signature-services-project-in-iraq

[47] https://www.uncitral.org/pdf/english/texts/electcom/06-57452_Ebook.pdf

the requirements of e-commerce and its implications for consumers. Developing a consumer protection law based on the requirements of international principles for effective consumer protection legislation is also a requirement for Iraq's accession to the WTO. The respondents to the survey have highlighted the protection of consumers online as the greatest bottleneck for e-commerce development in Iraq (Figure 13).

In revising its Consumer Protection law for e-commerce, Iraq could consider aligning its legislation with the United Nations Guidelines on Consumer Protection and the OECD Guidelines. This would help encourage harmonization in consumer protection legislation and foster consumer confidence in e-commerce.

Figure 13: Key Stakeholders' Opinion of the Importance of Government Regulations to Enhance Trust

Survey question: Do you agree that government regulations in the following areas are important to enhance trust in e-commerce? (private sector, 36 responses)

Source: UNCTAD
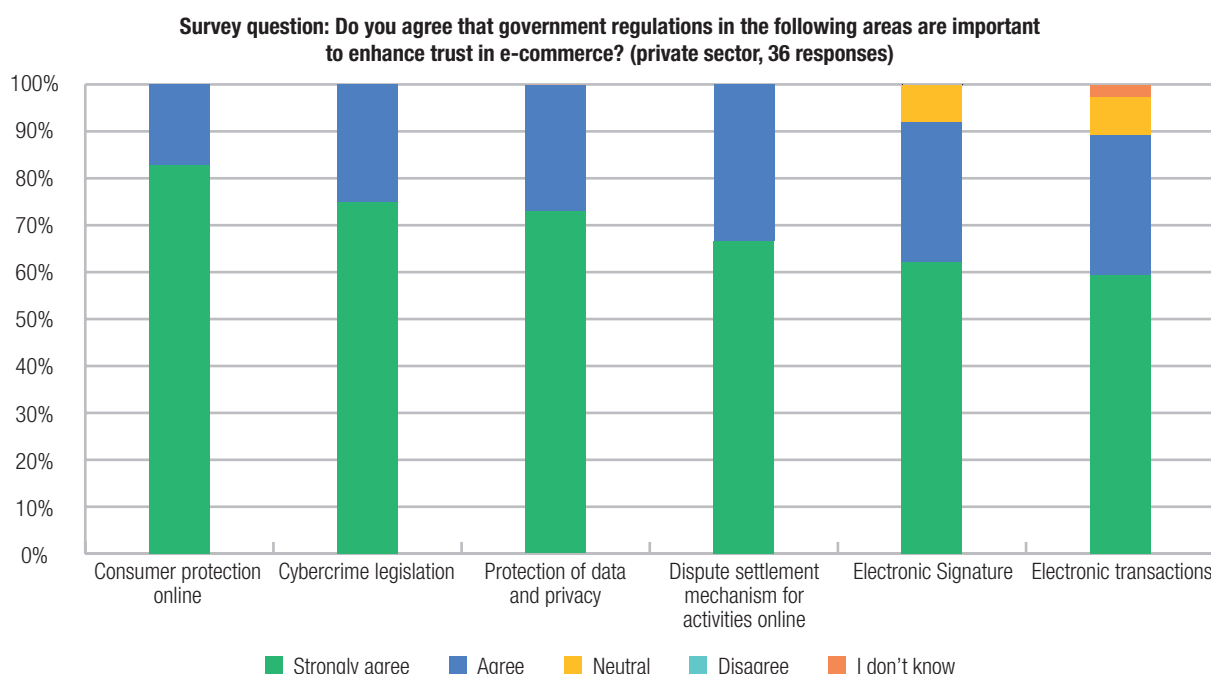
Box 6: International Principles for Effective Consumer Protection Legislation

Consumer protection is increasingly regarded as a cornerstone in enhancing consumer confidence in electronic commerce, for which it is necessary to ensure a level of protection that is not less than that afforded in other forms of commerce. The United Nations General Assembly has recognized that a robust legal and regulatory framework for consumer protection serves an important public interest, contributing to economic dynamism and consumer welfare.

Business-to-consumer e-commerce saw an increase of 22 per cent in 2018, although it still represents less than 13 per cent of all e-commerce estimated by UNCTAD to have equaled US$ 29 trillion in 2018.

The United Nations Guidelines for consumer protection, revised in 2015, offer a valuable set of principles for setting out the main characteristics of effective consumer protection legislation, enforcement institutions and redress systems. The Guidelines assist interested Member States in formulating and enforcing domestic and regional laws, rules and regulations that are suitable for their own economic, social and environmental circumstances, as well as promote international enforcement cooperation among Member States and encourage the sharing of experiences in consumer protection.

Iraq enacted its Consumer Protection Law in 2010, which also applies to e-commerce. However, the Government should include provisions to accommodate the special features of electronic commerce with a view to encouraging:

- Good business practices;
- Clear and timely information on goods, services and providers;
- Clear, concise and easy to understand contract terms that are fair;
- A transparent process for the confirmation, cancellation, return and refund of transactions;
- Secure payment mechanisms;
- Fair, affordable and speedy dispute resolution and redress;
- Consumer privacy and data security; and
- Consumer and business education.

Also, the Law foresees the creation of a Consumer Protection Council as the national authority, although it is yet to be formed. The Ministry of Trade currently has policymaking powers over consumer protection in e-commerce, but enforcement of consumer protection laws is lacking. As recommended by the United Nations Guidelines, Iraq should work towards ensuring that its consumer protection enforcement agency has the necessary human and financial resources to promote effective compliance and to obtain or facilitate redress for consumers in appropriate cases.

The Government should ensure that consumers and businesses are informed and aware of their rights and obligations in the digital marketplace.

Iraq should also consider engaging in international and cross-border cooperation in the field of consumer protection in e-commerce, because fraudulent and deceptive practices or the trade of unsafe products across-borders can pose risks to Iraqi consumers. The United Nations Guidelines recommend that Member States cooperate in combating unfair business practices, fighting the distribution of unsafe products, and exchanging information about policymaking.

Another relevant instrument is the OECD Recommendation on Consumer Protection in E-commerce, revised in 2016, which addresses the issues of advertising and marketing, disclosures, confirmation process, payments, dispute resolution and redress, privacy and security, and education and awareness raising in digital competence. In 2018, the OECD released a Toolkit for protecting digital consumers as a resource for G20 policymakers. The OECD also published a background report on challenges to consumer policy in the digital age for the 2019 G20 Consumer Summit.

In order to assist developing countries in adapting their legal framework for consumer protection in the digital economy, UNCTAD has developed technical assistance and capacity-building that are available upon request.

Source: UNCTAD

5.3 Data protection and privacy laws

The draft laws on data protection, privacy and cybercrime should be reviewed based on international guidelines. To ensure confidence and trust in online commerce, the draft law on data protection and privacy and the draft law on cybercrime should be further reviewed. This should be an immediate priority for the government and should be done in full partnership with the private sector through a nationwide multi-stakeholder dialogue. In revising the laws, the following factors should be taken into consideration:

- Select the most appropriate international guidelines for developing the privacy and data protection law including the OECD Guidelines on the Protection of Privacy and Transborder Flows of Personal Data, the European Union Data Protection Directive, the Council of Europe Convention on Data Protection, and the Asia-Pacific Economic Cooperation Privacy Framework; in doing so, consider regional and international levels, especially among the Arab League countries;

- Base the cybercrime law on the Council of Europe Convention on Cybercrime (2001);

- Establish an efficient data protection regulatory agency or add these responsibilities to the mandate of the Iraqi National Security Advisory (INSA).

In terms of other relevant laws, the comprehensive Competition and Anti-Trust Law No. (14) of 2010 aims to protect and ensure free and fair trading in Iraq. The law provides for a Competition and Anti-Trust Council attached to the Council of Ministers, which supervises Iraqi markets. The Iraqi Product Protection Law No. (11) of 2010 aims to protect local Iraqi products from unfair competition in international trade. However, because Iraq is planning to accede to WTO, this law and other relevant laws should be reviewed as per the WTO requirements.

Stakeholders consulted in preparation of this assessment raised three major points:

- The lengthy process of discussing and endorsing e-commerce laws is due to the limited understanding of the majority of national public sector stakeholders and decision makers in this area, including members of Parliament. Increased knowledge and awareness of legal issues related to e-commerce and the digital economy would help members of Parliament more effectively advance relevant laws;

- The high turnover rate within national specialized committees and the high mobility of employees within government leads to loss of institutional knowledge;

- Representatives of the MoT proposed the Sandbox[48] approach as a way to develop laws and build capacities simultaneously, in line with the private sector survey results calling for innovation in developing laws and regulations.

Private sector enterprises should work with regulators to establish Regulatory Sandboxes to test out their products without facing legal liability, since this could encourage the adoption of more balanced regulations.

Learning-by-doing policy reform is needed to create an effective legal framework. To ensure compatibility of laws to the evolving needs of the private sector, particularly considering the limited capacity Iraq has in developing e-commerce related laws and regulations, a comprehensive long-term 'learning-by-doing' capacity-building programme should be developed. This programme could build local capacity parallel to the revision of laws and regulations with support from regional and international expertise. Several international and regional organizations, including UNCITRAL, UNCTAD, the International Telecommunication Union, the United Nations Office on Drugs and Crime, and the Council of Europe can provide assistance to countries and regions in different legal areas. The action matrix at the end of this report highlights the potential providers of this assistance for each of the recommendations and policy areas addressed. Such a capacity-building program should take into consideration the need to[49]:

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[48] *Regulatory sandboxes are isolated testing environments set up by regulators to allow small scale testing of innovations, new technology, new apps and programs in a controlled environment in order to deploy any new technology in a fast and scalable manner.*

[49] *Based on the guidelines provided by the UN; OECD; E-commerce Legal Guide, New Markets Lab in partnership with the Center for International Private Enterprise, May 2018, and the consultations during the fact-finding mission.*

- Align laws with leading international legal instruments to promote cross-border e-commerce.

- Build capacity and infrastructure to respond effectively to cyberattacks.

- Enforce cross-border law and strengthen the capacity of computer emergency response teams to react quickly and efficiently in combating cybercrime, including the establishment of a common training and resource center and 24/7 national contact points.

- Coordinate among institutions tasked with different legislative aspects of e-commerce, national security, and e-Government to adopt common principles that will facilitate the delivery of all these services.

- Harmonize regional and global e-transactions in order to have compatible legal systems and trade policies.

- Align legislation on e-transactions with the provisions of UNCITRAL texts and adopt the United Nations Convention on the Use of Electronic Communications in International Contracts to promote legal harmonization[50].

- Implement the various security measures to protect data against deliberate acts of misuse.

- Promote public-private partnerships, which should be implemented to take advantage of the private sector's strengths and responses to threats.

- Train the judiciary in the area of cyberlaws since legal issues around e-commerce are still relatively new.

- Adopt the Sandbox Approach.

5.4 Intellectual property rights laws

One of the main challenges to infusing an entrepreneurial culture in the private sector is the lack of intellectual property protections. The lack of such protections makes it easy for ideas to be stolen and for new initiatives to be duplicated. Most of the laws related to intellectual property in Iraq are outdated and do not reflect the current needs of businesses and the evolving digital economy. Thus, Iraq should work on developing a new Intellectual Property law that meets local and international best practices and the needs of the Iraqi private sector.

The current Intellectual Property regime of Iraq consists of:

- Law No. (3) of 1971 on Copyright, as amended by the Coalition Provisional Authority (CPA) under Order Number 83 in 2004[51];

- Law No. (21) of 1957 on Trademarks and Trade Names, as amended by the CPA under Order Number 80 in 2004 and retitled as "Trademark and Geographical Indications Law", and the Singapore Treaty on the Law of Trademarks (2006), which was ratified by Iraq in 2014;

- Law No. (65) of 1970 on Patent and Industrial Designs, as amended by the CPA under Order Number 81 in 2004 and retitled as "Patent, Industrial Design, Undisclosed Information, Integrated Circuits and Plant Variety Law" and the Paris Convention for the Protection of Industrial Property (1883), which was ratified by Iraq in 1976[52].

Achieving conformity of domestic legislation with World Trade Organization (WTO) requirements, including Iraq's Intellectual Property laws by CPA with regard to Trade-Related Aspects of Intellectual Property Rights (TRIPS), is part of Iraq's effort to become a member of the WTO. For example, Iraq is currently developing a new unified Intellectual Property rights law that is expected to cover all categories of Intellectual Property rights plus the relevant institutions and procedures[53].

Iraq is also considering accession to a number of treaties administered by the World Intellectual Property Organization (WIPO), including the Patent Cooperation Treaty, the Madrid Agreement Concerning International Registration of Marks, the Berne Convention for the

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[50] Proposing a set of core legal provisions enabling cross-border e-commerce, the Convention updates certain provisions of UNCITRAL model laws, such as the location of the parties, the time and place of dispatch and receipt, and the functional equivalence of "signature". It also introduces new provisions, such as the use of automated message systems, invitation to make offers, and the like. Finally, the Convention provides core provisions on e-transactions to ensure regional and international harmonization.

[51] In addition, Iraq is member of the Multilateral Convention for the Avoidance of Double Taxation of Copyright Royalties, with model bilateral agreement and an additional Protocol, Madrid, 13 December 1979; the Arab Convention for Copyright Protection of 1981; the UNESCO Convention on the Protection and Promotion of the Diversity of Cultural Expressions, Paris, 20 October 2005, and the UNESCO Convention for the Safeguarding of the Intangible Cultural Heritage, Paris, 17 October 2003.

[52] The laws are available at https://wipolex.wipo.int/, https://govinfo.library.unt.edu/cpa-iraq/regulations/ and https://en.unesco.org/countries/iraq/conventions.

[53] See WTO, Memorandum on Foreign Trade Regime, Iraq, Working Party on the Accession of Iraq, World Trade Organization, 2018, WTO/ACC/IRA/10, para.206.

Protection of Literary and Artistic Works, the Rome Convention for the Protection of Performers, Producers of Phonograms, and Broadcasting Organisations, the WIPO Copyright Treaty, the Geneva Convention for the Protection of Producers of Phonograms Against Unauthorized Duplication of Their Phonograms, and others[54]. Among these, the WIPO Copyright Treaty of 1996 has developed specific norms with respect to copyright enforcement in the digital environment.

Importantly, the amendment of the Copyright Law by the CPA under Order Number 83 in 2004 extended copyright protection to computer programs and recognized copyright protection against reproduction of works into a digital or electronic storage medium[55]. The Singapore Treaty on the Law of Trademarks (2006), to which Iraq acceded in 2014, on the other hand, addresses key questions of electronic processing of trademark application and registration. Furthermore, Iraq's Communications and Media Commission (CMC), established by the CPA under Order Number 65, has adopted policies with respect to domain name registration[56] that recognize the priority of trademark owners in the registration of domain names[57].

Despite these important developments, the current laws of Iraq do not cover the full breadth of Intellectual Property rights issues in the digital economy. The country's Intellectual Property regime does not strike a balance between the opportunities offered by digital technologies, especially the rapid distribution of content, and the legitimate interests of those who established their business models in the analog age. There is also a gap in Iraqi law concerning the responsibility of digital platforms towards Intellectual Property rights-infringing content uploaded by users. Another important regulatory gap concerns the extent to which electronic analysis of large amounts of copyrighted works may be undertaken without the rights holder's permission to enable researchers to discover patterns, trends, and other useful information that cannot be detected through usual human reading (i.e., text and data mining).

Besides the protection and dissemination of digital content, Iraq should also address the role of Intellectual Property rights in the creation of digital infrastructure. A policy decision should be made about the extent to which ICT development should rely on proprietary or on open source software. In addition, the domestic Intellectual Property framework should reflect the need for collaboration on intellectual property where the development of new product standards depends on interoperability of digital technologies held by various rights holders. Standard developers rely on patent and copyright owners' good faith disclosure of any Intellectual Property right claim and the provision of licenses on fair, reasonable, and non-discriminatory (FRAND) terms. A national Intellectual Property framework should provide guidance on a variety of complex issues related to FRAND, such as the determination of fair royalty rates and the rights of intellectual property holders to prevent use of their technologies if agreement on FRAND terms cannot be reached.

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[54] *See WTO, Memorandum on Foreign Trade Regime, Iraq, Working Party on the Accession of Iraq, World Trade Organization, 2018, WTO/ACC/IRA/10, para.206.*

[55] *See CPA, Amendment to the Copyright Law, 2004, Article 2), 4), 5), 10) and 14).*

[56] *The .IQ country code top-level domain, and its Arabic version, was delegated to Iraq's Communications and Media Commission in 2005 and 2015, respectively, by the Internet Assigned Numbers Authority (IANA). The IANA is a function between the United States Government and the Internet Corporation for Assigned Names and Numbers (ICANN). See further, IANA, Report on the Delegation of the عراق ("Iraq") domain representing Iraq in Arabic script to Communications and Media Commission (CMC), 15 October 2015, available at https://www.iana.org/reports/2015/iraq-report-20151005.html, last visited 4 October 2019.*

[57] *See CMC, IQ Registration Policy, 2012, available at http://www.cmc.iq/ar-iq/wp-content/uploads/2016/06/Domain-Name-Registration-Policy.pdf, last visited on 4 October 2019.*

6. E-COMMERCE SKILLS DEVELOPMENT

> Awareness and skills related to e-commerce are generally low in Iraq, particularly in the public sector. Raising awareness among all segments of the public sector and providing them with highly specialized capacity-building is of immediate importance. The skills of the private sector also should be enhanced through existing educational institutions as well as new ones. The startup environment is growing, but the development of tech-based MSMEs remains slow due to limited e-commerce business development services and scarce funding. In addition to revising its curriculum to match the needs of the digital economy, the educational system could partner with the public and private sectors to support accelerators and hubs for entrepreneurs and startups. Creating programs to support e-commerce skills development will require a deeper understanding of different target groups and their needs.

6.1 Availability of tertiary education/curriculum, professional training

Tertiary education institutions specializing in ICT and related fields were recently established in Iraq and the number of enrolled students is increasing. Iraq has 38 universities endorsed by the government with a total enrollment of nearly 744,000 students. There are also 305 vocational schools - 10 of which specialize in IT - with a total number of students exceeding 50,000. There are two institutes specializing in IT and telecommunications:

- The High Institute for Telecommunications and Post (HITP) is a governmental institute under the authority of the MoC. The HITP aims to build the technical capacities needed in telecommunication and post and provides two-year diplomas for students who complete the preparatory school level. It also organizes workshops and conferences to create awareness about developments in the telecommunications sector.

- The University of Information Technology and Communications (UOITC)[58] is the first specialized university in ICT in Iraq. It was established in 2014/2015 to respond to the urgent changes in the IT field. The UOITC is envisioned to be a flagship university in the field of informatics and communications. The UOITC comprises of two main colleges: Business Informatics and Engineering.
  - ° The College of Business Informatics aims to provide the business market with graduates who possess skills to work in technical fields, along with an understanding of the

fundamental concepts of business and organizational management.

- ° The College of Engineering was established in 2017 in line with the recent development of ICT, the disappearance of some traditional jobs from the labor market, and the need for modern competencies that meet the requirements of the labor market. It includes two scientific departments, the Mobile Communications and Computing Department and the Media Technology Engineering Department. In its first academic year 2017-2018, the College received about 50 students for the first stage in both departments. At the beginning of the 2018-2019 academic year, the enrollment for these new departments increased to about 70 students; the number is expected to increase in the coming years.

6.2 Identification of skill gaps

The entrepreneurial skills in e-commerce must be developed as one of the key drivers for e-commerce growth. Private sector institutions, companies and employees - especially MSMEs - lack the knowledge and expertise to effectively engage in e-commerce. Private sector firms, especially in the manufacturing sector, have not integrated e-commerce into their strategies. According to the Iraqi Federation of Industries (IFI), the vast majority of its 55,000 members are not aware of the benefits of e-commerce.

The Iraqi workforce lacks adequate e-commerce skills since the current education system is unsuited

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[58] http://www.uoitc.edu.iq/

to the evolving needs of the digital economy. Key skills related to application development, search engine optimization, data analytics, and web-based marketing are sorely lacking. The startup environment is growing, but the development of tech-based MSMEs remains slow due to limited e-commerce business development services and scarce funding. In addition to revising its curriculum to match the needs of the digital economy, the educational system could partner with the public and private sectors to support accelerators and hubs for entrepreneurs and startups.

Most private businesses in Iraq are very small, owned by sole proprietors or run as family businesses. While many of the employees in these businesses are unskilled labor, those with higher levels of education also lack the necessary skills to engage in e-commerce activities. This situation is exacerbated by the massive emigration of professionals and skilled labor.

In general, the Iraqi public sector lacks the skills and knowledge to develop an enabling environment for e-commerce. The limited number of public servants with proper knowledge of the issues around e-commerce and the digital economy, coupled with a high level of turnover of employees among national specialized committees' members makes

the capacity of the government to devise relevant and actionable policies more tenuous. As a result, the entrepreneurs prefer to turn to players other than the government when developing their e-business.

One way to prevent the loss of knowhow and skills is to support Training of Trainers (ToT) for specific skilled employees who could train others and should be taken into consideration. Another major issue is what mechanisms to deploy to transfer the knowledge from these individuals to others. Furthermore, specialized training is required to improve the effectiveness and the competitiveness of the e-commerce enabling environment. Building the capacity of the judiciary sector and courts in cases related to e-commerce is also of high priority.

National awareness raising campaigns should target consumers at all levels of society.

Significant sensitization efforts are required to increase awareness among all citizens. Awareness among the public sector in general is highly required, including among policy and lawmakers. The in-country consultations and survey results shown that creating awareness on e-commerce is the priority to move forward the digital agenda in Iraq.

Figure 14: Needs and Opportunities for e-commerce Development in Iraq

Survey question: In case you need technical assistance to start developing e-commerce solutions, how likely are you to turn to: (private sector, 35 responses)

Legend: Highly likely | Likely | Unlikely | Very unlikely
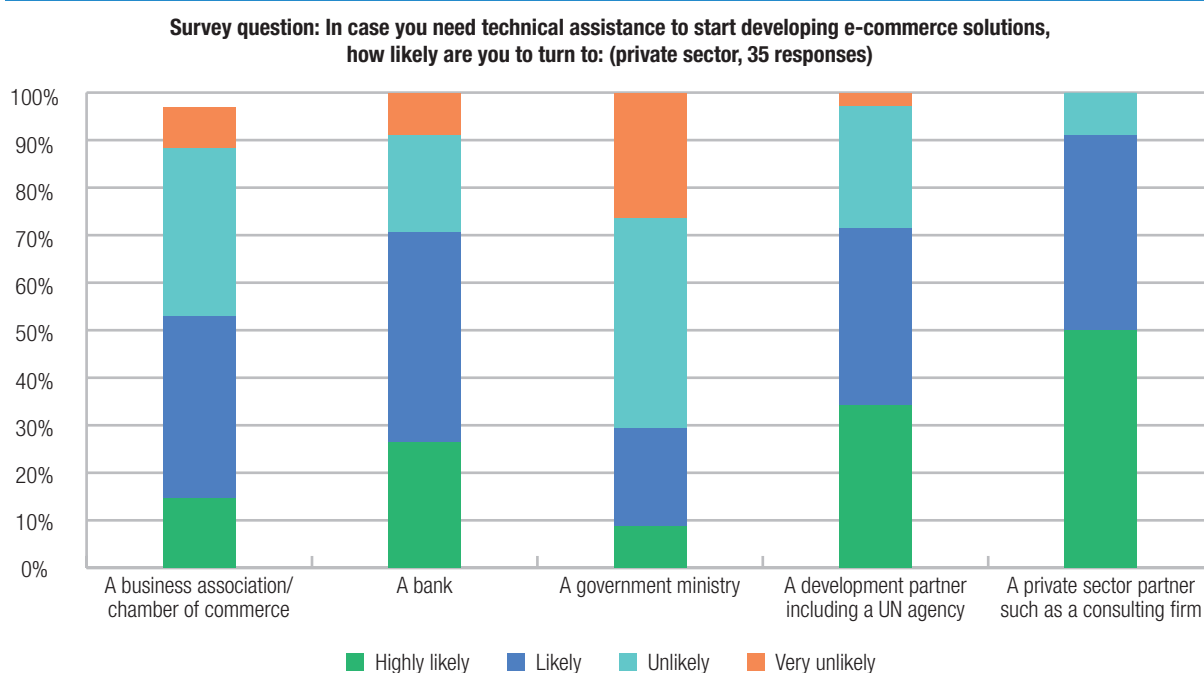
Source: UNCTAD

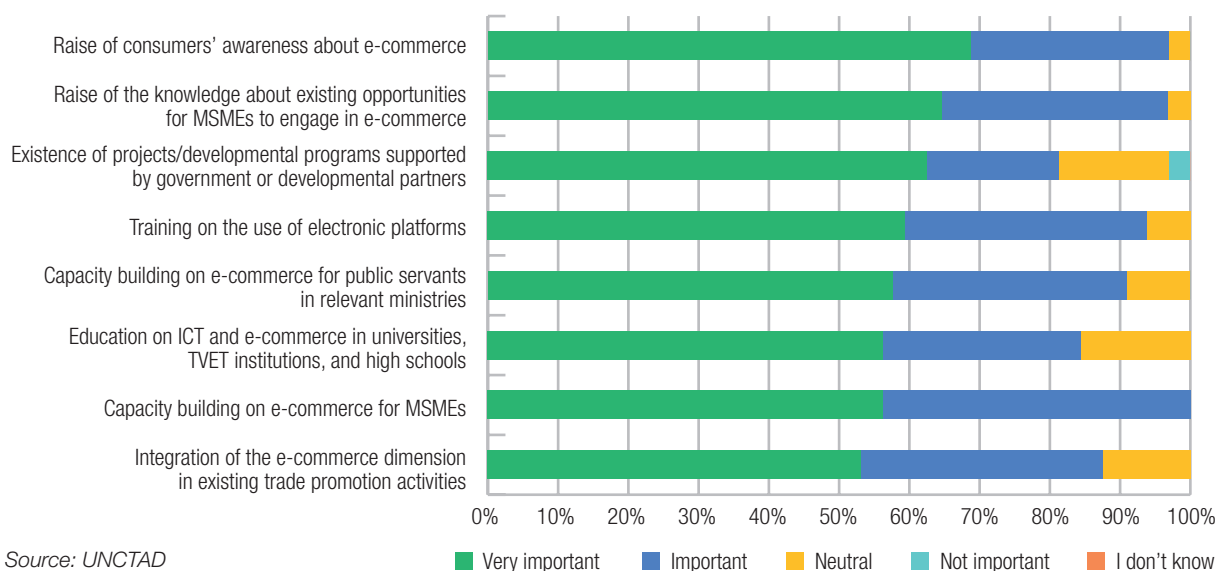**Figure 15: E-commerce Skills and Capacity-building Needs**

Survey question: Please score the following areas according to their relative importance to create an environment that is conducive to e-commerce (private sector, 33 responses)

Source: UNCTAD

Consumer awareness should be raised regarding the potential benefits of e-commerce and cashless transactions. Producing a video which introduces Iraqi consumers to e-commerce could be an initial step to begin this effort. The video could be produced with minimum financial resources and could highlight real experiences of Iraqi consumers who are benefiting from e-commerce.

Among MSMEs, awareness-raising and capacity-building programs should focus on the following:

- Increasing knowledge of existing opportunities for MSMEs to engage in e-commerce;

- Selecting the best business model for MSMEs to engage in e-commerce;

- Integrating the e-commerce dimension into existing trade promotion activities;

- Providing training on the use of electronic platforms;

- Increasing the Arabic content, in addition to any other language, based on the targeted markets; and

- Providing opportunities within existing projects and developmental programs supported by the government or developmental partners.

Furthermore, it is necessary to increase awareness of the need to develop specific curriculum related to ICT, e-commerce and the digital economy in universities, TVET institutions, and high schools.

6.3 Developmental programs for e-commerce skills and support to the business development landscape

While there is no national umbrella organization for e-commerce skills development and capacity-building for SMEs, there are scattered efforts that could be better leveraged. There are few capacity-building activities and initiatives provided by public and private sector institutions. Many of the large ICT companies that attended the thematic group discussions expressed a willingness to support training efforts aimed at the public sector. E-commerce companies like Shopini are already conducting awareness-raising sessions in universities and are interested in supporting additional awareness-raising or capacity-building programs.

Private sector initiatives include the IACIT, which provides free e-commerce consultancy and training to public and private sector institutions, including universities like the University of Science and Technology. IACIT could extend this training to the

public sector, by partnering with Iraqi Trade Point at the MoT, MoC and the Iraqi Post.

In addition, there are exciting new initiatives to fill the skills gap, such as Fikra Space[59], which works on filling the digital skills gaps, creating an IT community, and training businesses through various programs. They offer bootcamps for web development, graphic design and mobile app development, for example. A private company established to provide support to SMEs and startups, FikraSpace brings together people with common interests in computers, technology, science and art. People are encouraged to share their knowledge, build new things, organize workshops and collaborate. FikraSpace also provides tools such as a 3D printer, Arduino, electronics, and more. Some of the services offered by FikraSpace, such as the bootcamps, would be valuable to the public sector as well.

Public sector initiatives include the following:

The Du3M Initiative implemented by CMC offers a promising opportunity to provide capacity-building. Several workshops in different areas have been conducted since its launch, including in web design, the Internet of Things, IXP and transformation to IPv6, Iraq's country name Top-Level-Domain (.iq), and others. The DU3M Initiative demonstrates the potential to build broad-based capacity that would be conducive to e-commerce development.

The Iraqi Customs organizes an annual training program, although it does not address e-commerce. The MoT provides capacity-building and training programs through its different departments. The **Iraq International Trade Point** was established by the MoT to support e-commerce, increase trade efficiency and help businesses. The Trade Point is the first government electronic platform[60] that creates business linkages between domestic and international companies. The electronic platform was launched in October 2019 in order to provide companies with access to trade information and promote their products and services through the Trade Point platform (www.iitp.mot.gov.iq).

UOITC and the Higher Institute for Telecommunications provide programs that focus on capacity-building in ICT. These institutions could lead the coordination with other partners to revise the tertiary and vocational education curriculum to include courses on digital skills, Internet marketing and e-commerce.

Several more potential institutions could contribute to building ICT skills in Iraq. For example, a capacity-building program could be developed in coordination with the High Institute for Telecommunications and Post. The Iraqi Post's initiative could also provide entrepreneurs and SMEs in e-commerce with a business incubator, providing training, hosting, and logistical and payment solutions, thus offering a fast entry point for MSMEs into the e-commerce arena.

In addition, it very important to make use of the programs and services offered by The Arab Administrative Development Organization (ARADO)[61].

Coordinating these efforts through a national body, such as the Private Sector Development Council (PSDC), would amplify the impact of individual efforts and contribute to cross-learning across entities providing capacity-building assistance. The Private Sector Development Strategy (PSDS) 2014-2030 called for establishing a PSDC[62] made up of government and private sector representatives, which would serve as a management oversight body and a platform for dialogue and coordination of activities. The PSDS also called for establishing a Planning, Research and Implementation Unit (PRIU) to implement the activities and put in place the requirements for implementation. Unfortunately, the establishment of this council has been suspended and no agreement has been reached to date on its formulation and legal status for its intersection with the work of the Private Sector Development Department at the MoT. Accordingly, and given the increasing role of SMEs in the digital economy, the Government could begin to think about establishing a national SME agency. This independent agency could focus on supporting SMEs and digital entrepreneurs as Iraq continues to diversify its economy and moves towards a knowledge-based digital economy. Studying the

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[59] *FikraSpace Website. Last accessed on 25/11/2019: https://Fikra.space*

[60] *www.iitp.mot.gov.iq*

[61] *ARADO was established in 1961 as a specialized organization of the League of Arab States to shoulder the responsibility of administrative development in the Arab region. The scope of ARADO services also extend to include governmental organizations, public enterprise associations, private sector and the three levels of administrative leaderships, namely supervisory, mediatory and executive leaders.*

[62] *Private Sector Development Strategy 2014-2030*

feasibility and its compliance with existing laws and regulations should be considered before establishing this agency.

Bridging the SMEs e-commerce skills gap

Public and private sector stakeholders have expressed a willingness to work together to develop a comprehensive capacity-building program aimed at building the e-commerce competitiveness of SMEs. The following factors should be taken into consideration when developing such a programme.

- Align it with the national e-commerce strategy.

- Associate the private sector as a key to developing relevant capacity-building program.

- Coordinate with international developmental partners during program development and in seeking funding.

- Include a financing mechanism building on available resources provided by the large private sector companies, public and private sector institutions, and available funding from developmental partners.

- Strengthen the coordination between the public and private sectors, plus academia:

  ° High-level coordination among private sector stakeholders including INBC, IFI, IACIT, and IFCC;

  ° High-level coordination among public sector stakeholders including the MoT, the MoC, CMC, the Ministry of Higher Education, and EGCC; and

  ° Coordination among universities and national educational institutes, especially UOITC and the Higher Institute for Telecommunications.

- Include a component on capacity for private sector institutions based on their specialized mandates for providing services.

- Complementary actions, especially by the EGCC, that could expand all government services to an online presence, encouraging the establishment of a national e-procurement platform to stimulate market-learning processes, and improving the economic sustainability of e-commerce SMEs.

- Ensure that capacity-building requirements adhere to e-commerce related laws and regulation such as intellectual property, consumer protection, electronic transaction, privacy, cybersecurity, and others.

Creating programs to support e-commerce skills development will require a deeper understanding of different target groups and their needs. Currently there are no statistics on formal or informal companies working in e-commerce, making it difficult to design developmental programs to bridge the skills gap.

7. ACCESS TO FINANCING[63]

> The limited access to financing for entrepreneurs and SMEs is one of the main constraints to economic growth, job creation and private sector advancement, as well as the development of e-commerce. MSMEs and individuals have very limited interactions with banking and financial systems, and most liquidity remains outside banks. One of the main reasons for the low rate of lending to e-commerce ventures is the MSMEs limited knowledge of their specific and unique needs. Moreover, banks in Iraq have little experience lending to SMEs and many do not have the expertise to analyze credit risk, especially in a perceived risky environment like e-commerce, or to carry out cash flow analyses. While there have been two specific CBI initiatives to provide financing to these under-banked segments, the rate of disbursement has been very low. The policies and lending criteria of these initiatives should be reviewed to ensure they meet the needs of MSMEs, women entrepreneurs and startups. More broadly, the Iraqi entrepreneurial ecosystem, including venture capital, is still nascent, so startups cannot rely heavily on tech incubators and accelerators.
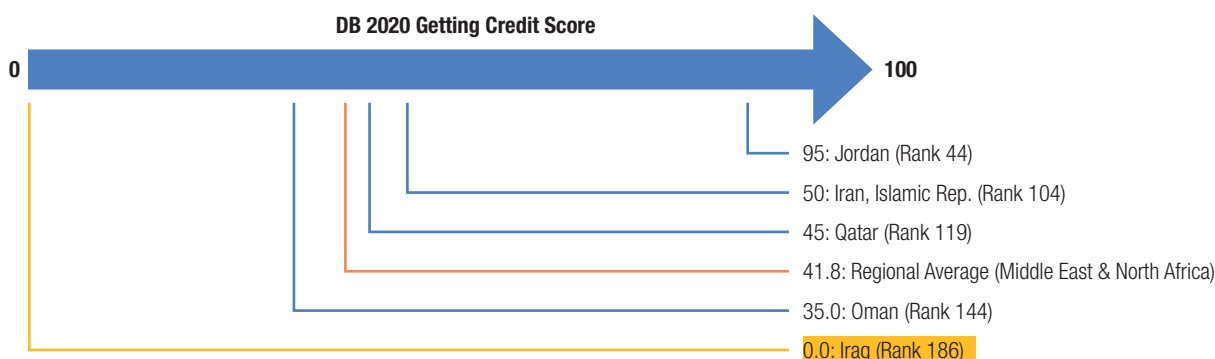
7.1 Depth and breadth of the commercial banking system

The Iraqi commercial banking and financial systems do not fully meet the needs of citizens, MSMEs and startups. This weakness is further amplified for individuals or companies engaging in e-commerce, which is seen as a risky venture in Iraq. The commercial banking system traditionally provides services to large established firms in traditional industries. The political context, high level of insecurity and an unfavorable business climate in Iraq discourage risk-taking among investors and financial institutions. Very few guarantee funds or banks are willing to finance MSMEs or entrepreneurs, particularly if they are digital startups or businesses. Most Iraqi startups are self-funded as a result, and this makes difficult

to scale quickly. Moreover, the prolonged conflict caused damage to the physical infrastructure of the financial sector, caused losses to financial assets and exacerbated pre-existing weaknesses in the financial sector.

In terms of access to credit, Iraq is ranked last (position 186) in the World Bank's Doing Business ranking for 2020. Reforms led by the CBI have made a difference in many areas, but the main challenges have not been addressed. The low percentage of actual dispersions from the CBI IQD 1 trillion credit initiative for MSMEs reflects the need to revisit the lending policies. Revised criteria may be needed that recognizes the unique circumstances of small businesses, women, and digital startups.

Figure 16: World Bank's Doing Business 2020, Getting Credit in Iraq and Comparator Economies

DB 2020 Getting Credit Score

0   100

95: Jordan (Rank 44)
50: Iran, Islamic Rep. (Rank 104)
45: Qatar (Rank 119)
41.8: Regional Average (Middle East & North Africa)
35.0: Oman (Rank 144)
0.0: Iraq (Rank 186)

Source: World Bank

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[63] *This chapter has been developed with valuable contribution from the World Bank.*

The RDF (Reconstruction and Development Framework) highlighted the importance of the financial sector, especially with regard to access to financing. Pillar II of the PSDP – Improving the Business Environment – called for adopting an overall policy on access to financing for private businesses, particularly SMEs, through revision of financing procedures and the establishment of a seed capital and guarantee fund[64].

Providing SMEs with knowledge of financing and partnership opportunities to start or further develop an e-commerce business is crucial. Many SMEs simply do not know where to turn when in need of capital. Respondents to the eTrade Readiness survey ranked achieving favorable investment climate for e-commerce, awareness of investment opportunities in the e-commerce ecosystem, and awareness of different types and blends of financing (e.g., investment finance, crowdfunding, loans, grants, overdrafts, invoice financing, leasing, and asset finance) as the most important priorities (Figure 17).

SMEs have very limited knowledge about available funding opportunities, as well as how to evaluate their funding needs if they were to engage in e-commerce. Because e-commerce is a new area for many SMEs, they do not have the experience or expertise to evaluate their funding needs along the entire e-commerce value chain. This in turn makes it difficult to make credible financing requests to banks and other credit institutions. Even developing basic business plans and proposals can be a challenge for some SMEs, which is a basic requirement for applying for funding from many institutions.

It is not enough, therefore, to simply increase awareness of the available financing opportunities. Digital entrepreneurs and MSMEs engaging in e-commerce may need capacity-building on how to develop bankable business plans and funding proposals. Part of this entails developing detailed knowledge of the needs of the e-commerce value chain, including the needs of consumers and investors.

Figure 17: Access to Finance, Needs and Opportunities for e-commerce Development in Iraq

Survey question: Please rate the following areas according to their relative importance to create an environment that is conducive to e-commerce (private sector, 33 responses)

Source: UNCTAD

Very important Important Neutral Not important I don't know

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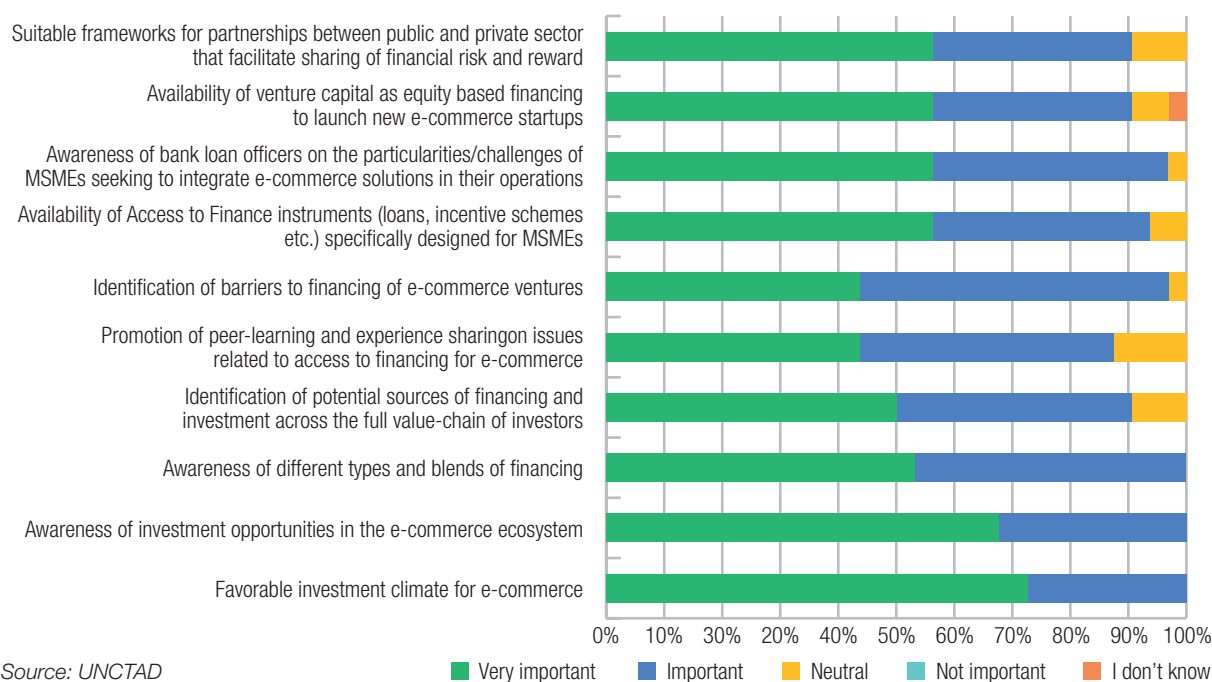
64 *Iraqi Private Sector Development Strategy 2014 - 2030*

Iraqis generally have little interaction with the formal financial system and most liquidity is held outside the banking system. The Findex survey indicated that in 2017 only 23 per cent of the adult population had an account at a formal financial institution. Although this is a significant increase from 11 per cent in 2011, it remains much lower than the rest of the MENA region (regional average of 43 per cent). The survey also revealed that only three per cent of Iraqi citizens borrowed from formal institutions in 2017, down from five per cent in 2014, with the percentage for females declining from 4.2 per cent to 2.8 per cent during the same period[65]. This is likely due to the conflict from 2014 to 2017 and is likely to rebound given the improving security situation and reconstruction efforts. In a sign of the recovery, the number of bank accounts increased by 40 per cent between 2017 and 2018[66].

7.2 Key challenges faced by enterprises in accessing credit[67]

Although the Iraqi authorities have taken positive steps to enhance access to financing, key challenges remain. Currently only five per cent of Iraqi SMEs can access formal credit. Meanwhile, it is estimated that less than five per cent of SMEs in the formal sector have received bank loans[68].

Banks in Iraq have little experience lending to SMEs, and many do not have the expertise to analyze credit risk or to carry out cash flow analyses. Further policy reforms are needed to strengthen the financial infrastructure, bridge information asymmetries and allow for risk mitigation schemes that incentivize private banks to lend to the small businesses engaged in e-commerce. Institutional capacity-building in banks, particularly in the evaluation of non-traditional businesses, would also help increase lending to SMEs.

Specific financing solutions for startups and growth-oriented businesses in the e-commerce ecosystem are not yet widely available. A secured transaction regime that includes a movable assets registry is another step toward reducing barriers to lending. Establishing a comprehensive public credit registry could also help increase lending by increasing the confidence of

banks to lend to new businesses, because they would be better able to identify risky clients, assess portfolio risks, and develop proper risk management strategies.

In 2018, the Central Bank of Iraq started the process of developing a National Financial Inclusion Strategy to guide policymakers, regulators and the private sector in extending financial inclusion to all segments of society. As part of the work on the formulation of the financial inclusion strategy, the CBI formed the Higher Committee for Financial Inclusion, chaired by the Central Bank of Iraq, with membership from public and private institutions. Four executive sub-committees were formed, including the Small Projects Committee and the Education and Consumer Financial Protection Committee. In addition, the CBI conducted several awareness-raising sessions on financial inclusion.

The CBI has put in place IQD 6-trillion line of credit (the 6-Trillion initiative) for state-owned and private banks to lend to SMEs, as well as agricultural, infrastructure and real estate projects. The initiative consists of a 5-Trillion Dinar initiative to support industrial, agricultural and real estate projects through specialized governmental banks and a Housing Fund; and a 1-Trillion Dinar initiative to finance Small and Medium enterprises through all private banks[69]. The 1-Trillion Dinar initiative disbursed IQD 73.23 billion, or 7.3 per cent of the total amount, by the end of 2018 through 33 banks providing funding to 2,415 projects. Through the 5-Trillion Dinar initiative, a total of IQD 1.75 trillion (35 per cent) was credited by the end of 2018 through specialized banks and the Housing Fund. The amounts credited to the specialized banks in 2018 included: IQD 86.5 billion to the Industrial Bank; IQD 11.7 billion to the Agricultural Bank; IQD 65 billion to the Real Estate Bank; and IQD 135 billion to the Housing Fund[70].

According to participants in the in-country consultations held during the fact-finding mission, MSMEs are barely aware of this initiative. Moreover, the strict requirements to qualify for this funding make it nearly impossible for MSMEs to access. Thus, the policies and lending criteria utilized by the initiative

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[65] *World Bank*
[66] *CBI*
[67] *World Bank*
[68] *World Bank*
[69] *CBI: https://cbi.iq/static/uploads/up/file-154746476161262.pdf*
[70] *CBI: https://cbi.iq/static/uploads/up/file-156448203149840.pdf*

should be reconsidered to align with the needs of MSMEs, women entrepreneurs and digital startups.

The CBI is supporting the establishment of a deposit guarantee institution; the MoT in coordination with the CBI should work on deploying an export finance mechanism, an export guarantee fund, and political risk insurance.

Relevant ministries, especially the MoT, should allocate funds within their annual budgets to support e-commerce programs in Iraq. In addition, the possibility of utilizing the Export Support Fund to enhance export-related e-commerce should be investigated, and the needed mechanisms should be put in place. Public and private sector institutions should coordinate with international and regional developmental partners to provide specialized programs the support e-commerce development in Iraq.

7.3 Financing by banks and MFIs and types of financing provided

Banks dominate the financial sector in Iraq, while the nascent non-banking financial sector remains underdeveloped. The Iraqi financial sector is dominated by the banking system, accounting for more than 75 per cent of the financial assets. Lending is concentrated on large and secure clients, since banks lack proper expertise and risk management to expand outreach to unbanked and under-banked segments. The lack of regulatory infrastructure for secure transactions, credit reporting, and insolvency increases information asymmetry and lending risks for the banks, contributing to low outreach. The lack of functioning interbank markets also limits the funding options for banks[71].

Operating banks in Iraq include seven state-owned banks, 24 local commercial banks, 20 branches of foreign commercial banks, and 30 Islamic banks (one of which is state-owned). Non-banking financial institutions comprise five financial institutions, 15 financial companies and seven financial investment companies[72].

The large number of Islamic banks (30 Islamic Banks) reflects the local demand in the market for Islamic financing services. While the CBI issued and drafted several laws and bylaws to regulate Islamic financing, including insurance and investment related laws, the CBI's initiative to support SMEs should take into consideration the demand for Islamic loans.

Iraq lags regional peers when it comes to domestic credit provided to the private sector, standing at 8.63 per cent of GDP in 2018. It also has one of the lowest ratios of commercial bank branches and ATMs per 100,000 people.

The Iraqi non-banking financial sector is at an early stage of development with nascent and underdeveloped capital markets. The insurance sector is very small and dominated by three state-owned insurers, while insurance penetration remains low. No reliable information is available about the Postal Saving Fund, exchange companies, financial transfer companies, or other non-bank financial institutions (NBFIs), but they are estimated to be very small. One pension fund currently exists, which the World Bank helped to make operational. The mortgage market remains relatively underdeveloped.

The microfinance sector is one of the smallest and least developed in the Arab region. Iraq has experienced a decline in the number of functioning MFIs over the last

Table 10: Depth of the banking sector: Selected indicators			
Country	Commercial bank branches per 100,000 adults, 2018	ATMs per 100,000 adults, 2018	Domestic credit to private sector (% of GDP), last available
Iraq	4.52	3.95	8.60 (2018)
Saudi Arabia	8.32	73.79	54.00 (2017)
United Arab Emirates	10.65	63.94	78.70 (2018)
Turkey	16.80	78.21	68.50 (2018)
Iran, Islamic Rep.	30.76	87.69	66.10 (2016)

Source: World Bank

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[71] *World Bank*

[72] *CBI: https://cbi.iq/page/93*

three years, with only three MFIs currently operating with a combined outstanding portfolio of US$ 110 million and 63,530 active borrowers. Yet, available data show that Iraq has 7.36 million people in poverty (22.5 per cent of the population), out of whom 2.5 million are economically active (eight per cent of the population). This suggests that microfinance supply represents only a small fraction of potential demand. Also, the portfolio quality of the MFIs in operation has deteriorated, but the overall level of non-performing loans remained relatively low as of 2017 – NPL 30 days went up to six-seven per cent, compared to 2.7 per cent at the end of 2012.

MFIs face many obstacles to their growth. These include a fragmented legal and regulatory framework, a lack of investment as a result of their NGO status, limited access to wholesale finance from local and foreign financial institutions, and insecurity that led to the closure of most institutions in the ISIS affected areas. Addressing these challenges has been identified as a key priority for MFIs to meet the growing financing needs of MSMEs, low-income individuals and households, and other vulnerable groups.

Special attention should be given to the needs of women to ensure equitable access to finance.
Women have had special needs during post-conflict recovery due to potential changes in family structure (e.g., increase in women-headed households). Meanwhile, they tend to have more limited access to finance due to a variety of social and financial factors, including lower levels of formal employment, income, education and access to technology, as well as a lack of collateral and credit history. In addition, there are gender differences in risk-taking behavior as well as gender disparities in legal and regulatory frameworks. Addressing the disparities will require tailored financing solutions for women aimed at increasing their financial inclusion and ultimately, their participation in the digital economy.

When it comes to financing policies, there are significant differences between the needs of MSMEs and large businesses. For example, MSMEs are less likely to have cash reserves or collateral. Startups and women entrepreneurs have special needs as well that differ from SMEs. Women entrepreneurs have limited

access to finance, lack of collateral, as well as lack of credit history. Startups also need special financing solutions to support their establishment, including purchasing machines, raw materials and software. Various enabling financing schemes could be designed based on the specific needs and enablers of each target group, rather than needs-blind equal treatment. Examples include:

- Zero interest or low-interest loans, especially for women and startups. Low rates could be reduced to zero if job creation targets are reached by the funded project.

- Grants (as a cost share) to support purchasing machines, raw materials and software.

- Encouraging banks to provide credit to small business in cooperation with business incubators or accelerators. Banks could provide support services through experts in areas related to project planning, product development, and access to markets to maximize the benefit of the credit extended to SMEs, especially women-owned businesses.

- Tailored funding programs for women entrepreneurs and startups could be launched by development partners, including multilateral and regional development banks.

7.4 Support by incubators, venture capitalists, and donors[73]

Despite the recent establishment of five innovation hubs and growing interest from different stakeholders, the Iraqi entrepreneurial ecosystem is nascent and underdeveloped.
Business development support organizations such as business incubators and accelerators are critical support structures for idea-stage, early-stage, and growth-stage startups. In addition to idea validation and business advisory support, incubators and accelerators also offer access to high-speed Internet[74] and, in some cases, equipment to test software and hardware products or services. Angel investors and early-stage financiers, including venture capitalists, provide much needed sources of startup capital, since digital startups are not eligible for debt financing from commercial banks due to the lack of collateral requirements.

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[73] *World Bank*

[74] *Studies show that access to high-speed Internet is linked to increased productivity.*

Box 7: Iraqi Business Women Center (BWC)

BWC was established to serve the interests of Iraqi businesswomen and female entrepreneurs. One of the main objectives of BWC is to advocate creating an enabling environment for improving women's socioeconomic conditions and allowing them to play a role in developing the Iraqi economy. Importantly, BWC has a clear understanding of how e-commerce can help create new business opportunities for Iraqi women. According to Mrs. Amel Hussein Majeed, Chairwoman of BWC, e-commerce can play a key role in mitigating many challenges faced by women in Iraq, including cultural restrictions and domestic norms that have reduced the number of career options for women. Most women holding a job prefer joining the government and fear starting their own businesses or projects, especially considering the unstable political and business environment.

Limitations on access to financing due to a variety of social and financial factors, including lower levels of income and education and lack of collateral and credit history, as well as the limited support by the government to women in providing specialized programs and financing tools, are among the main challenges facing women entrepreneurs in Iraq.

BWC is working to effectively engage with all potential partners in order to help female entrepreneurs grow their businesses, increase profitability, and ideally create more stable jobs in their communities.

BWC is focusing its efforts on:

- Increasing awareness of e-commerce;
- Providing customized technical assistance in business development, costing, contracting, marketing, and business linkages; and
- Extending support for access to financing by working with financial institutions to provide tailored financing solutions for women aimed at increasing their financial inclusion.

BWC is highly interested in collaborating with all partners in order to make e-commerce a viable option for women.

Source: UNCTAD, based on an interview of Mrs. Amel Hussein Majeed, BWC Chairwoman

Iraq's growing digital entrepreneurship ecosystem is characterized by the emergence of five innovation hubs across the country: Five One Labs, Tech Hub, and Iraq Response Innovation Lab in Erbil; Five One Labs in Sulaymaniyah; the Station, FikraSpace, and Noah's Ark in Baghdad; Science Camp in Basra; and Mosul Space in Mosul. Notably, Zain is the only large corporation engaging with startups in Iraq, while a few international donors and NGOs are supporting innovation and entrepreneurship programs. Zain has backed most youth and entrepreneurship communities and events in Iraq since the 2013 Startup Weekend, which represented a turning point in the Iraq entrepreneurial scene. Zain plans to open an innovation space in Baghdad, similar to its space ZINC in Amman, located inside the bustling King Hussein Tech Park. The number of enterprises that have benefited from those hubs is not known and the impact of such assistance has not yet been measured.

Despite growing interest from local incubators and accelerators, the telecommunications company Zain, the donor community, and other stakeholders, the Iraqi ecosystem is still nascent. Existing incubators and accelerators provide "pre-incubation" and "incubation" programming, specific services that emphasize idea validation and prototyping. Thus, this form of digital entrepreneurship programming currently supports pre-seed and seed-stage startups. As the ecosystem matures, additional service offerings, such as acceleration[75] and investment readiness activities, tailored for growth-oriented startups, will need to be developed and introduced. Initial WBG stakeholder consultations indicate that there is currently a gap in investment readiness programming. Additionally, the efficacy of these programs will hinge upon the service provider's ability to attract critical resources such as mentors, business advisors, angel investors, and venture capital funds. Opportunities do exist to develop these networks by engaging the Iraqi diaspora and investors from the MENA region while developing the local early-stage financing environment in parallel.

Due to an underdeveloped early-stage financing environment, it is believed that many Iraqi startups are categorized as pre-seed stage. Additionally, Iraqi startups with demonstrated market traction are currently fundraising outside of Iraq, and in other MENA countries due to cultural and linguistic proximities. No known angel networks, crowdfunding platforms,

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[75] *Acceleration is a time-bound, cohort-based program that rapidly matches startups with business advisory, mentorship, and sources of capital to refine their business model and scale to new markets. Typical acceleration programs last up to six months and include a heavy emphasis on mentorship and investment readiness to improve a startup's marketability to investors. A "classical" acceleration program also invests in portfolio companies in exchange for an equity stake, as is the case of Y Combinator.*

or investment funds are investing in Iraqi startups and innovative SMEs. Though Iraq Tech Ventures pioneered seed funding in 2019, KAPITA aims to launch Iraq's first accelerator in 2020 in partnership with business angels; the American University of Iraq Sulaymaniyah (AUIS) is also exploring the establishment of an accelerator. A promising entrant is iMENA Group, based in Jordan, which has expressed interest in investment opportunities in the Iraqi market, starting with funding of proven business models such as e-commerce.

A promising development is the acceptance of the first Iraqi startup, Lezzoo[76], into the prestigious Silicon Valley-based Y Combinator (YC) accelerator program in August 2019. YC portfolio companies must pass a rigorous screening process to receive a $150,000 investment, extensive training, mentorship, and access to world-class venture capitalists in exchange for a seven per cent equity stake. Only 1.5 per cent of applicants are accepted into the YC program. Lezzoo, a seed-stage startup aims to build the "super-app of the Middle East" and currently provides on-demand delivery services in five Iraqi cities including Baghdad, Erbil, Duhok, Sulaymaniyah, and Zakho. In an interview with Tech Crunch, Lezzoo's founder stated that they are seeing positive unit economics, including a net profit of 63 cents per delivery. Lezzoo's competitive edge is that they are solving the problems of payments and mapping of delivery networks to serve Iraq's untapped consumer market. Lezzoo's current users are placing two orders per month.

The only known example of a mature Iraqi digital startup that has gained traction in the MENA region is Magnitt[77]. Magnitt has developed a data platform for investors that currently hosts 5,500 startups and over 12,000 users, including over 300 individual investors and over 150 funding institutions. Magnitt produces annual reports that synthesize regional investment activity, based on data from its users, providing valuable insight into the ecosystem.

While it is clear that Iraq lags behind its peers in terms of the number of startups and the number and size of investments, there are no reliable sources on the number of active startups in Iraq. Even Magnitt's platform lacks comprehensive data on the Iraqi tech ecosystem; nor is Iraq ranked on leading entrepreneurship indices, including the Global Entrepreneurship Index (GEI) and the Global Accelerator Learning Initiative (GALI), which also capture firm level data as part of their ranking.

As a first step towards improving Iraq's digital entrepreneurship ecosystem, deepened linkages need to be forged with early-stage investors within Iraq, the diaspora, and across the MENA region. Moreover, existing business incubators and accelerators need to introduce improved service offerings.

For business incubators and accelerators, as well as for entrepreneurs, it is crucial to consider – in parallel with the larger focus on product development – other aspects that include customer satisfaction, key competitiveness factors, market share, and the rest of the value chain in preparing a strong business plan and for coming up with realistic financial projections. Moreover, incubators and entrepreneurs should not separate themselves from the BSOs which usually provide services to SMEs to be able to create business linkages nationally, regionally, and internationally.

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[76] *https://www.fastwares.com/lezzooeats.html*

[77] *https://magnitt.com*

CONCLUSION

The emergence of e-commerce in Iraq is very promising and has the potential to create jobs, diversify the economy, stimulate domestic demand and increase exports. As the country continues to rebuild after years of conflict, e-commerce can provide a boost to many existing industries and create new opportunities for young people, women and aspiring entrepreneurs. The policy barriers outlined in this report are complex and interconnected. As such, the Government should take an integrated and holistic approach to policy action, with a clear focus on creating an enabling environment that makes it easier for businesses to take risks and innovate. More trust will also need to be developed among consumers, merchants and investors, before they fully embrace the digital economy.

Chief among these policy actions will be developing a comprehensive national e-commerce strategy that outlines a vision for a future digital Iraq, with clear priority sectors and projects, and the necessary legal framework. Establishing an E-commerce National Task Force (ENTF) under the Prime Minister's Office to guide the formulation and follow-up of the e-commerce strategy implementation is a crucial step that should to be taken as soon as possible. It will be key to involve a wide range of stakeholders from the public and private sectors, as well as from civil society, throughout the strategy development process. Once finalized, funding for the implementation of specific projects within the strategy should be secured from government resources, multilateral and regional development banks, the private sector and international organizations.

The E-commerce National Task Force (ENTF) should take responsibility for championing e-commerce development within and outside the Government. This would improve the policymaking process considerably, reduce overlap and duplication of activities, and expedite the formulation and implementation of the e-commerce and the digital economy agendas.

More coordination and cooperation, including through public-private partnerships, is vitally important. The vibrant private sector in Iraq has much to offer in terms of professional expertise and capacity-building resources. Equally important is involving the voices of Iraqi women in the policymaking process and including their perspectives as business owners, entrepreneurs and consumers.

In this context, support from international development partners will be key. UNCTAD and other eTrade for all partners stand ready to assist Iraq as it embarks on its path towards a digital future. On trade logistics and facilitation, UPU could work with the Iraqi Post to develop a clear implementation strategy to improve services to the Iraqi market. UNCTAD could assist in preparing an e-commerce strategy and legal frameworks, including a Consumer Protection Act, Data Protection and Privacy Consumer Protection Act, Data Protection and Privacy Law, and Intellectual Property Law, as well as work with the Customs Authority to simplify customs procedures. UNCITRAL could help update key laws such as the Electronic Signature and Electronic Transactions Act. The World Bank could support enacting a comprehensive payments legislation to ensure secure e-payment solutions for consumers and businesses, support capacity-building in access to finance and payment solutions, as well as developing customized access to finance solutions. Identified partners are included in the Action Matrix, which summarizes key priority actions and expected results.

THE WAY FORWARD: ACTION MATRIX

E-COMMERCE READINESS ASSESSMENT AND STRATEGY FORMULATION			
Indicative action	**Expected outputs**	**Priority Level**	**Potential support by**
Develop a demand-driven national e-commerce strategy that should have a clear and unified vision of needed digital economy interventions.	A national plan for the development and growth of e-commerce is developed, assigning a clear vision, as well as roles and responsibilities of stakeholders.	High	ENTF, EGCC, MoC, MoT, UNCTAD, WB
Establish an E-commerce National Task Force (ENTF), supported by a secretariat, located in the Prime Minister's Office, to develop the national e-commerce strategy and monitor its implementation.	Coordination among stakeholders increased, unified vision reached, and a leader identified. Public-private-academia dialogue on e-commerce established.	High	MoT, EGCC, UNCTAD
Design and implement national awareness programs for e-commerce. Raise awareness among public, private, and academia including a special focus on MSMEs, decision makers and consumers.	A nationwide understanding of the importance and potential of e-commerce and support for it. Decision makers, private sector organizations, merchants, and consumers' capacities for and trust of e-commerce are built.	High	MoT, MoC, IACIT, Iraqi Post, INBC, UNCTAD, IDB
Develop polices and investment incentive packages to improve the enabling environment for e-commerce, especially for MSMEs and women-owned businesses.	MSMEs and women find it easier to engage in e-commerce.	High	ENTF, GoI, MoT, CBI, UNCTAD
Encourage the participation of policymakers in trainings and conferences organized by international developmental partners (WTO, UNCTAD, etc).	Decision makers have the needed capacities to understand the e-commerce ecosystem and participate effectively in formulating the national e-commerce strategy.	High	ENTF, GoI, MoT, MoC, IACIT, Iraqi Post, INBC, UNCTAD, WTO
Conduct a coordinated national survey to collect data on existing and potential e-commerce companies and service providers. Build a data base for companies and entrepreneurs in the e-commerce ecosystem.	Effective and well-informed e-commerce strategies and policies are designed.	High	MoT, MoC, IACIT, Iraqi Post, INBC, CMC, IFI, UNCTAD

ICT INFRASTRUCTURE AND SERVICES			
Indicative action	**Expected outputs**	**Priority Level**	**Potential support by**
Develop a national strategy for the development of the ICT sector in line with the needs of an emerging digital economy.	Public and private stakeholders have a clear, comprehensive action plan on how to develop the sector.	High	MoC, CMC, ENTF, EGCC, MoT, IDB, IACIT, private companies
Rebuild the infrastructure destroyed by conflict, especially electricity power sources and the national backbone network.	Improved infrastructure will support the overall development and growth of the sector.	High	GoI, WB
Specify complementary but distinct roles for the MoC and the CMC in relation to liberalizing the telecommunications sector, including the national backbone.	The two bodies are able to achieve more in cooperation rather than duplication.	High	GoI, ENTF, MoC, CMC, UNCTAD

ICT INFRASTRUCTURE AND SERVICES

Indicative action	Expected outputs	Priority Level	Potential support by
Update and develop the legal and regulatory framework for the ICT sector, including passing the first telecommunications law.	The development of the sector is supported by clear laws and regulations that protect the interests of private investors in the sector and identify clear roles and responsibilities for stakeholders.	High	GoI, MoT, MoC, CMC, UNCTAD, ITU
Establish continuous public-private-academia dialogue between MoC, CMC, IATCIS and UOITC for the effective development of the ICT sector.	Public and private stakeholders put their efforts together to develop the sector to the best interest of all concerned parties.	High	ENTF, MoC, CMC, IATCIS, UOITC, other private sector
Encourage competition and private investment in infrastructure, especially fixed broadband infrastructure. Encourage infrastructure sharing where appropriate.	Private companies enter the sector and start investing in better and more infrastructure.	High	GoI, MoC, CMC
Increase access to high-speed, affordable and reliable Internet, including mobile Internet. Improve last-mile connectivity.	Disparities in Internet access reduced, larger segments of the population have more access to e-commerce opportunities.	High	CMC, MoC, mobile service providers
Study the feasibility of developing an international infrastructure to turn Iraq into a global communications hub.	Iraq becomes an international ICT hub in the region, leading to more revenue and jobs as well as other economic opportunities.	Medium	MoC, CMC, GoI, ITU
Formulate policies to improve access to mobile Internet as a strategic approach to promoting e-commerce.	The majority of the population has access to mobile platforms for shopping online.	Medium	ENTF, MoC, mobile service providers

TRADE LOGISTICS AND TRADE FACILITATION

Indicative action	Expected outputs	Priority Level	Potential support by
Implement proposed transportation projects by promoting and deploying an enabling business environment for PPP, such as the rehabilitation and development of Mosul and Nasiriya International Airports.	Trade infrastructure and logistics will be improved and expedited.	High	GoI, NCTTF, Ministry of Transport, WB, IDB
Develop the capacity of Customs to adapt to the digital economy, including the increased processing of small parcels driven by cross-border e-commerce.	The Customs clearance process will be automated and faster, in line with the international requirements for e-commerce. Time and cost of trade transactions highly reduced.	High	GoI, MoT, IC, BPC, NCTTF, UNCTAD
Simplify and automate customs procedures in cooperation with UNCTAD's ASYCUDA Programme.	Customs procedures will be simplified and automated. Key bottlenecks for trade facilitation resolved.	High	IC, UNCTAD
Implement the Iraqi Post Initiative by formulating a strategy that clearly maps the evolution of the business model and the gradual strategic approach toward reaching the objectives, including the installation of priority systems and tools identified by the UPU assessment.	Allow the Iraqi Post to take the expected role as a main actor in further e-commerce facilitation, especially promoting SMEs engagement in e-commerce.	High	Iraqi Post, UPU
Amend the mandate of the NCTTF to ensure that it officially replaces the NTFC.	Improved national coordination on the issue of e-commerce. All e-commerce relevant institutions are engaged and represented on the committee.	High	GoI

PAYMENT SOLUTIONS			
Indicative action	**Expected outputs**	**Priority Level**	**Potential support by**
Enact comprehensive payments legislation to ensure secure e-payment solutions for consumers and businesses.	Enterprises and consumers feel safe and secure when using e-payments, providing a growth driver for e-commerce.	High	CBI, GoI, WB
Deploy policies to provide incentives for mobile operators to reduce operating costs for mobile payments.	M-payments are affordable, and funds could be transferred from mobile accounts to bank accounts.	High	CMC, MoC, Mobile Operators, CBI, WB
Enhance ease-of-use for mobile payments. Improve interoperability—not only for P2P transactions, but also for merchant payments and bank account-to-wallet transfers.	M-payments play key role in e-commerce growth, compensating for deficiencies in other payment tools.	High	Mobile Operators, CBI, WB
Raise awareness among consumers about cashless payment solutions.	Consumers start using e-payments at a higher rate, driving demand.	High	CBI, WB, IACIT, IFI
Raise awareness among merchants about the security of electronic payments, with a focus on MSMEs.	Merchants' attitude towards electronic payments improves, and a larger portion of them engage in e-payment transactions.	High	CBI, IACIT
Develop a national QR-code standard.	Boost merchant acceptance of mobile wallet use.	High	CBI, Mobile Operators
Develop and implement a unified approach to electronic collection of taxes, customs duties, and other person-to-government and business-to-government payments.	Support the creation of an e-commerce culture among consumers and SMEs.	High	CBI, EGCC
Improve performance of underperforming banks and financial institutions. This could be achieved through a combination of capacity-building and monitoring of performance by the CBI.	Reliability of electronic payment channels enhanced.	Medium	CBI, National and international banks

LEGAL AND REGULATORY FRAMEWORK			
Indicative action	**Expected outputs**	**Priority Level**	**Potential support by**
Update and implement the Electronic Signature and Electronic Transactions Act to serve the needs of the digital economy, especially SMEs.	Increased engagement in the digital economy. In particular, SMEs will be better equipped to engage in online transactions. Laws comply with international guidelines.	High	ENTF, MoT, EGCC, MoC, CBI, UNCITRAL, IACIT, IFI, INBC
Update and implement the Consumer Protection Act to accommodate the specific needs of e-commerce and assure e-consumer protection.	Consumers and enterprises will feel secure to an extent that allows them to engage in online transactions.	High	MoT, Ministry of Industry, UNCTAD, private sector
Establish the Consumer Protection Council and guarantee faster implementation of the law.	E-commerce business environment improved.	High	Ministry of Industry, MoT, Private Sector, UNCTAD
Update and implement the Data Protection and Privacy Law and the Cybercrime Law in line with international and regional best practices and develop cross-border authorities to fight cybercrimes.	Consumers and enterprises will feel protected and have more trust, allowing them to engage in online transactions.	High	ENTF, MoT, EGCC, MoC, INSA, CBI, UNCTAD, private sector

LEGAL AND REGULATORY FRAMEWORK

Indicative action	Expected outputs	Priority Level	Potential support by
Update and implement the Intellectual Property Law to provide for the specific needs of e-commerce.	Entrepreneurs will feel sufficiently protected when developing new ideas and concepts.	High	MoT, CMC, MoC, UNCTAD
Develop a comprehensive long-term, learning-by-doing capacity-building program, where local capacity of policymakers and lawmakers, including judiciary, is built during the process of revising laws and regulations.	Strengthen sustainability of policy reform.	High	ENTF, MoT, EGCC, MoC, IACIT, INBC, UNCTAD, UNICTRAL, IDB
Reform the business registration process, especially for women entrepreneurs.	Make the process of starting a business faster, easier, and less expensive, to increase the proportion of formally registered companies.	High	MoT, UNCTAD
Build the capacity of the judiciary by providing specialized training, including case studies related to e-commerce. Best practices from other countries could be integrated into the training.	E-commerce business environment improved.	High	EGCC, GoI, MoT, Ministry of Justice, UNCTAD

E-COMMERCE SKILLS DEVELOPMENT

Indicative action	Expected outputs	Priority Level	Potential support by
Raise awareness of e-commerce and the digital economy among public sector officials, particularly in the MoT, CMC and MoC, CBI and NCTTF. Build government capacity to support the development of e-commerce.	The public sector gains comprehensive understanding of the importance and potential of e-commerce and receives the required capabilities to support the private sector in this regard.	High	ENTF, MoT, CMC, MoC, EGCC, UNCTAD, ITC
Raise awareness of the potential benefits of e-commerce with the private sector and build their digital skills through training and partnerships.	Private sector companies will understand the benefits that e-commerce can bring them and will be better equipped with the necessary skills to engage in e-commerce.	High	IACIT, INBC, IFCC, IFI, BWC, UNCTAD, ITC
Build a national awareness program to educate consumers about the safety of online payments and transactions, and the benefits of online shopping.	Consumers will drive demand for e-commerce.	High	MoT, CMC, Iraqi Post
Establish a formal coordination mechanism that includes the public and private sectors, as well as academia, to coordinate available capacity-building resources. An integrated capacity-building programme could also be developed through this partnership.	The public sector, the private sector, and academia are on the same page and start working together towards developing e-commerce in Iraq. Resources are well coordinated and used.	High	GoI, MoT, MoC, CMC, Ministry of Education, UOITC, other universities, all private sector institutions, major private sector companies
Build a cohort of e-commerce experts within Government by identifying highly skilled officials in the MoT, CMC and MoC, and providing them with Training-of-Trainers courses to disseminate this expertise. Leverage the existing expertise in the private sector to develop these Training-of-Trainers courses.	Capacity-building is sustained and knowledge transferred.	Medium	ENTF, EGCC, GoI, MoT, IDB

E-COMMERCE SKILLS DEVELOPMENT			
Indicative action	**Expected outputs**	**Priority Level**	**Potential support by**
Begin discussing the need for a national SME agency and develop a TOR to be circulated in the proposed ENTF. Build support for a national SME agency through conducting comprehensive survey on existing MSMEs and potential entrepreneurs and their needs, in addition to studying its feasibility and compliance with existing laws and regulations.	MSMEs competitiveness strengthened.	Medium	GoI, MoT, ENTF, private sector institutions, universities
Revise curriculum to match the needs of the digital economy, based on a comprehensive skills gap analysis.	Curriculum in tertiary education matches the needs of the private sector.	Medium	UOITC, Ministry of Higher Education, MoT, MoC, private sector, Developmental partners
Establish a sub working group within the ENTF to coordinate public-private-academia support to accelerators and hubs for entrepreneurs and startups.	Increased support to tech accelerators and innovation hubs, and closer coordination between the public sector, private companies and academia.	Medium	ENTF, PMO
Provide capacity-building programs for women's representative bodies in identifying and providing e-commerce related services.	Private sector e-commerce needs, especially for women, are clearly identified and streamed in the national e-commerce policies.	Medium	ENTF, INBC, IACIT, FICC, BWC, IFI

ACCESS TO FINANCING			
Indicative action	**Expected outputs**	**Priority Level**	**Potential support by**
In formal financial institutions, develop specific financing solutions for startups, small businesses and women-run businesses.	Startups, small businesses, and women-owned enterprises have improved access to funding.	High	CBI, MoT, banks, WB
Introduce a secured transaction regime with a movable assets registry.	Lending to MSMEs becomes easier and more secure.	High	MoT, CBI
Deploy training programs to develop the capacity of banks and financial institutions to address the financing needs of startups, small businesses, women-led businesses and other vulnerable customers.	Banks and other financial institutions understand the needs of startups, small businesses, and women-led businesses and are better equipped to develop specialized lending solutions.	High	CBI, WB
Develop partnerships between the public and private sectors, with the support of international development partners, to develop specialized financing programs for MSMES engaged in the digital economy.	MSMEs get better access to financing options. More financing solutions.	High	ENTF, MoT, CBI, WB, GoI
Revise the policies and lending requirements of the Central Bank of Iraq's IQD 6T-initiative to increase lending to SMEs involved in e-commerce and the digital economy.	More MSMEs qualify to receive funding from this initiative.	High	CBI, BWC, MoT, private sector
Deepen linkages between early-stage investors in Iraq and the MENA region and among the diaspora.	More funding, especially for startups, becomes available in Iraq.	High	MoT, Existing incubators and accelerators
Promote detailed knowledge to MSMEs of the opportunities and financing needs along the e-commerce value chain.	SMEs are well informed of the investment opportunities provided by e-commerce.	High	MoT, Iraqi Post, CBI, private sector

ACCESS TO FINANCING			
Indicative action	Expected outputs	Priority Level	Potential support by
Design and deploy an export finance mechanism, an export guarantee fund and political risk insurance. The unique needs of MSMEs should be considered.	SMEs risks are lowered, and exports promoted.	Medium	MoT, CBI, IDB

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

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